

## PRICES AND HOUSEHOLD EXPENDITURE

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### INTRODUCTION

As part of the interactive process between suppliers and consumers of goods and services, decisions as to business transactions can be identified at the production stage, or at the point of wholesaling or retailing. Insofar as price is a factor influencing these decisions the "price mechanism" is said to operate.

For the purposes of economic planning and decision making, whether by individuals, government and its agencies, or private enterprise, prices and price movements are a constant subject of study and measurement. Included in a range of available techniques of measurement is the method of calculating indexes. This chapter outlines particular applications of the index method, namely, movements in retail, wholesale, and export prices, with special reference to those indexes currently produced by the Australian Statistician.

### RETAIL PRICE INDEXES

#### General background

It must be emphasised that retail price indexes are designed to measure the extent of changes in price levels only. While they may be used to indicate the effect of price change on the cost of living, they do not in fact measure the absolute cost of living nor the extent of changes in the cost of living. They measure, as nearly as may be, the proportionate change in the aggregate cost of specified quantities and qualities of the items included in the index.

Retail price indexes are sometimes used as a measure of change in the "purchasing power of money". Strictly speaking, such a measure relates only to purchasing power over the list of items in the index combined in their specified proportions. The validity of its use in any broader sense or in dealing with a particular problem is a question for judgment by prospective users on the facts of the case and in the light of the definition of the index.

Retail price indexes may also be used by industrial tribunals and other authorities for the adjustment of wages and salaries. The Australian Statistician has an important function in stating explicitly what such indexes measure and how they are constructed, in order that authorities using them may be fully informed as to their suitability for particular purposes.

Retail price index numbers for Australian cities are compiled by the Australian Statistician. The retail price index at present prepared by the Australian Statistician is known as the Consumer Price Index.

#### Past retail price indexes

Information concerning past retail price indexes can be found on pages 631-2 of the *Victorian Year Book 1977* and *Labour Report (6.7)* last published in 1973.

## Consumer Price Index

### *Introduction*

This retail price index was first compiled in 1960, retrospective to the September quarter 1948. It replaced both the "C" Series Retail Price Index and the Interim Retail Price Index in the official statistical publications of the Australian Bureau of Statistics.

The incidence of change in the pattern of household expenditure has been such as to make it necessary to construct not one but a series of new indexes introducing additional items and changes in weighting patterns at short intervals. The Consumer Price Index, therefore, consists of a sequence of nine short-term retail price indexes, chain-linked at June quarter 1952, June quarter 1956, March quarter 1960, December quarter 1963, December quarter 1968, December quarter 1973, September quarter 1974, and September quarter 1976 into one series with reference base year 1966-67 = 100.0.

The Consumer Price Index has always been regarded as an important economic indicator. In recent years it has become even more important through its use as a starting point by parties to the national wage hearings and by the Arbitration Commission in determining the size and nature of wage adjustments. Some pension and superannuation payments are automatically adjusted or "indexed", using movements in the Index. The Index is also used in the indexation of income ranges for income tax purposes. Many business contracts are regularly adjusted to take account of changes in the Index or in some components of it. Rental agreements, insurance coverages, alimony, and child support payments are frequently tied in some manner to changes in the Consumer Price Index.

Price and other data used to construct the Consumer Price Index are one source used in compiling quarterly and annual estimates of current price expenditure on gross domestic product and are also used to revalue certain constant price estimates in the national accounting field.

The Consumer Price Index measures changes in the cost of purchasing a constant basket of goods and services representative of purchases made by a particular population group in a specified time period. It is important to remember that the Consumer Price Index measures "price movements" and not "price levels". The Consumer Price Index is often loosely called the cost-of-living index, but strictly speaking this is not correct. No country has yet been able to produce a truly valid cost-of-living index. A true cost-of-living index among other things would need to be concerned with changes in the standard of living and with substitutions that consumers tend to make in order to maintain their standard of living in the face of changing world conditions. The Consumer Price Index, between revisions, assumes the purchase of a constant basket of goods and services and measures price changes in that basket alone. From time to time, the basket of goods and services is revised to ensure that it continues to reflect the actual spending pattern of the population to which the Index relates.

### *Composition, weighting pattern, and collection*

The Consumer Price Index measures price changes affecting a large proportion of metropolitan employee households. This group is termed "the Consumer Price Index 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, but excluding the top 10 per cent (in terms of income) of such households. Metropolitan means the State capital cities and Canberra.

Information on the spending habits of a representative cross-section of Australian households is obtained from household expenditure surveys. The 1974-75 survey was used to obtain estimates of spending patterns for the consumer population group, and the current series (the ninth) of the Index introduced in September 1976, was based on these estimates.

The items in the Consumer Price Index basket cannot include every item bought by households but it does include all the important kinds of items. The items were chosen not only because they were representative of metropolitan household spending habits but also because the items were those whose prices could be associated with an identifiable and specific commodity or service.

The total basket is divided into the following groups: food; clothing; housing; household equipment and operation; transportation; tobacco and alcohol; health and personal care; and recreation. These groups are divided into sub-groups and the sub-groups are divided into expenditure classes. Index numbers are also produced for various special groupings of goods and services in the Index, such as "motor vehicle operation", "all groups, goods component" and "all groups, excluding food".

Every expenditure class in the Consumer Price Index has a "weight" (or measure of its relative importance). In calculating the Index, price changes for the various expenditure classes are combined using these weights. From time to time the Index is reviewed and new fixed weights introduced to reflect up-to-date expenditure patterns. Within each expenditure class there are also weights for each individual item. The weights at this level are varied whenever necessary to reflect changed buying patterns. These weight changes can, and do, take place between periodic revision of the Consumer Price Index. However, the weight changes are introduced into the Index in such a way that they do not, in themselves, affect the level of the Index. The weights for all groups and sub-groups are shown in the following table indicating the relative importance of them at the September quarter 1979. While the underlying weights are changed only at about five-yearly intervals, the percentage compositions vary from quarter to quarter, because prices for expenditure classes change at different rates.

**AUSTRALIA—CONSUMER PRICE INDEX: COMPOSITION AND  
WEIGHTING PATTERN AT SEPTEMBER QUARTER 1979:  
SIX STATE CAPITAL CITIES COMBINED**

Group, sub-group	Percentage contribution to total index aggregate (a)		Group, sub-group	Percentage contribution to total index aggregate (a)	
	Sub-group (b)	Group		Sub-group (b)	Group
<b>FOOD</b>		22.287	Drapery	1.104	
Dairy produce	2.043		Household utensils and tools	1.452	
Cereal products	2.234		Household supplies and services	3.184	
Meat and seafoods	6.676		Postal and telephone services	1.171	
Fruit and vegetables	2.613				
Soft drinks, ice-cream, and confectionery	2.105		<b>TRANSPORTATION</b>		18.290
Meals out, take-away food	4.466		Private transport	16.317	
Other food	2.150		Public transport fares	1.973	
<b>CLOTHING</b>		10.068	<b>TOBACCO AND ALCOHOL</b>		9.995
Men's and boys'	2.847		Alcoholic beverages	6.908	
Women's and girls'	4.509		Cigarettes and tobacco	3.087	
Piecegoods and other clothing	0.575		<b>HEALTH AND PERSONAL CARE</b>		5.389
Footwear	1.602		Health services	2.961	
Clothing and footwear services	0.535		Personal care products	1.705	
<b>HOUSING</b>		12.830	Personal care services	0.723	
Rent	5.083		<b>RECREATION</b>		7.399
Home ownership	7.747		Books, newspapers, magazines	1.451	
<b>HOUSEHOLD EQUIPMENT AND OPERATION</b>		13.742	Other recreational goods	2.780	
Fuel and light	2.269		Holiday accommodation	0.906	
Furniture and floor coverings	2.955		Other recreational services	2.262	
Appliances	1.607		<b>TOTAL (ALL GROUPS)</b>	<b>100.000</b>	<b>100.000</b>

(a) Percentage contribution to the Index aggregate, based on expenditures in 1974-75, valued at relevant prices in September quarter 1979.

(b) Composition and weighting pattern by expenditure classes is also available.

The sets of weights used for different periods covered by the Consumer Price Index have been derived from the analysis of statistics of production and consumption, censuses of population and retail establishments, the Survey of Motor Vehicle Usage, the continuing Survey of Retail Establishments, from information supplied by manufacturing,

commercial, and other relevant sources, from special surveys, and from the Household Expenditure Survey 1974-75.

Prices are calculated from many sources and around 80,000 separate price quotations are collected each quarter. Food items are priced at the middle of each month except in the case of some fresh items (fruit, vegetables, and fish) where prices are collected more frequently and averaged to obtain monthly prices. Most of the other items are priced quarterly, usually at the middle of the mid-month of the quarter. However, to smooth out collection workloads, some items are collected during the first month of each quarter. Some items, such as local authority rates, need to be priced only once each year.

As the Index aims to measure price changes of a constant basket of goods and services over time, identical or equivalent items are priced in successive time periods as far as possible. However, products do change and the effects of quality changes are evaluated separately from price changes to give a "pure" price. This need to account for changes in quality sometimes poses difficult or even insoluble problems.

#### *Periodic revisions*

The Consumer Price Index is revised from time to time in order to ensure it continues to be relevant to current conditions. The revisions have been usually carried out at approximately five-yearly intervals. Following each revision, the new series are linked to the old to form a continuous series. This linking is carried out in such a way that the resulting continuous series reflect only price variations and not differences in prices of the old and new baskets.

At less frequent intervals, the reference base period is also updated in order to focus on a closer and more meaningful period of time. Such changes in reference base periods have no effect on percentage changes calculated from the index numbers.

#### *Using the Consumer Price Index*

In addition to the All Groups Consumer Price Index for the weighted average of six State capitals, there is also published a separate Consumer Price Index for each capital city including Canberra, and for the weighted average of seven capital cities. Each city index measures price change over time for that city; together they enable comparisons to be made between cities in the degree of price movement, but not about the differences in price level. Similarly, the separate group indexes measure price movements of each group individually. They enable comparisons to be made about differences in the degree of price change in the different groups, but do not show the comparative cost of the different groups.

To sum up, the Consumer Price Index is designed to provide a "broad measure" of changes in retail prices encountered by metropolitan employee households as a group, and should not be expected to reflect exactly the experience of any particular household. Particular households within the group may not purchase every single item in the Index and may have very different spending patterns from the group average.

The Consumer Price Index is regarded as a good general measure of the effect of price change on the purchasing power of the dollar for metropolitan employee households overall. However, it is not the only measure of price change available and its use must be considered in regard to its suitability for particular needs. The Australian Bureau of Statistics also compiles and publishes a number of wholesale price indexes, including indexes for materials used and articles produced by manufacturing industry, and materials used in building. These indexes are referred to in the following pages. For some purposes users consider that the Implicit Price Deflators (IPDs) derived from national accounting aggregates (see Appendix B of this *Year Book*) such as Private Final Consumption Expenditure are an appropriate measure of price changes for broad categories of goods and services.

Further information and a more comprehensive indication of the statistics available on the current Consumer Price Index can be found in the Bureau's publications—*Consumer Price Index* (6401.0); *Consumer Price Index, monthly food group index* (6402.0); and *A Guide to the Consumer Price Index*.

AUSTRALIA—CONSUMER PRICE INDEX: ALL GROUPS: SIX STATE CAPITAL CITIES AND CANBERRA

(Base of index for each city and for six State capital cities combined:  
year 1966-67 = 100.0)

Year	Six capitals (a)	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Canberra
1975-76	193.3	199.0	189.5	190.9	190.5	189.6	190.0	187.3
1976-77	220.0	223.4	216.6	218.0	220.1	219.4	217.7	212.9
1977-78	241.0	243.2	238.2	238.4	241.8	243.1	239.1	232.3
1978-79	260.7	264.4	256.8	258.0	259.7	262.8	257.7	251.1
1979-80	287.2	292.4	282.5	283.0	285.8	287.4	284.0	278.0

(a) Weighted average of six State capital cities.

MELBOURNE—CONSUMER PRICE INDEX

(Base of each index: year 1966-67 = 100.0 except Health and Personal Care: December quarter 1968 = 100.0 Recreation: September quarter 1976 = 100.0)

Year	Food	Clothing	Housing	Household equipment and operation	Transportation	Tobacco and alcohol	Health and personal care	Recreation	All groups
1975-76	177.8	200.4	214.0	169.5	194.1	214.0	149.3	n.a.	189.5
1976-77	198.9	232.4	242.6	188.0	216.8	229.3	(a)266.1	103.7	216.6
1977-78	220.9	257.7	263.0	204.2	236.7	241.6	321.5	113.0	238.2
1978-79	245.8	276.5	276.1	218.5	256.9	277.8	307.3	120.5	256.8
1979-80	278.8	295.0	291.7	238.6	292.8	302.2	327.0	131.1	282.5

(a) Note effects of arrangements concerning Medibank on net prices payable by households for medical and hospital services.

Long-term price movements

The index numbers shown in the following table give only a broad indication of long-term trends in retail price levels. They are derived by linking a number of indexes that differ markedly in scope.

The successive indexes used are: from 1901 to 1914, the "A" Series Retail Price Index; from 1914 to 1946-47, the "C" Series Retail Price Index, from 1946-47 to 1948-49, a composite of the Consumer Price Index Housing Group (partly estimated) and the "C" Series Retail Price Index, excluding rent; and from 1948-49 onwards, the Consumer Price Index.

AUSTRALIA—RETAIL PRICE INDEX NUMBERS, 1901 TO 1979:  
SIX STATE CAPITAL CITIES COMBINED  
(Base: year 1911 = 100)

Year	Index number	Year	Index number	Year	Index number	Year	Index number
1901	88	1921 (a)	168	1941	167	1961	471
1906	90	1926	168	1946	190	1966	517
1911	100	1931	145	1951	313	1971	621
1916 (a)	132	1936	141	1956	419	1976	1,083
						1979	1,432

(a) November.

The prices shown in the following table for the June quarter 1980 are averages of prices for specified grades, qualities, brands, etc., charged by a number of selected retailers in Melbourne. These specified grades, etc., and the retailers, have been selected as representative to measure price changes over time. Average prices such as these were published by month until December 1977. Since March 1978, they have been published as average prices for the quarter and now include additional items such as fresh fruit, confectionery, household supplies, alcoholic beverages, and personal care products. The selected items come within the Food Group and the following sub-groups of the Consumer Price Index: Household supplies and services, Alcoholic beverages, and Personal care products, but they do not comprise "all" the items and varieties incorporated in the respective groups of the Consumer Price Index.

The prices are approximate indicators of price levels and do not purport to be the actual averages of all retail sales of these items. Prices for the food items are collected as at the middle of each month excepting the case of some fresh items (fruit, vegetables, and fish) where prices are collected more frequently and averaged to obtain monthly prices. The average prices shown for food items are quarterly averages of average monthly prices. Prices for non-food items are collected as at the middle of the mid-month of each quarter.

Past average retail prices in Melbourne of selected commodities in selected years can be found on page 637 of the *Victorian Year Book 1977*.

MELBOURNE—AVERAGE RETAIL PRICES OF SELECTED ITEMS,  
JUNE QUARTER 1980

Item	Unit	Price	Item	Unit	Price
		cents			cents
Dairy produce—			Bananas	1kg	108
Milk, bottled, delivered	2x600ml	63	Potatoes	1kg	36
Milk, powdered, full cream	300g can	94	Tomatoes	1kg	123
Cheese, processed	250g	62	Carrots	1kg	54
Butter	500g	100	Onions	1kg	41
Cereal products—			Peaches	825g can	72
Bread, milk loaf, sliced			Pineapple, pieces	450g can	47
supermarket sales			Peas, frozen	500g pkt	59
(white loaf)	680g	54	Confectionery—		
Biscuits, dry	225g	46	Chocolate, milk, block	200g	94
Breakfast cereal, corn based	500g	79	Other food—		
Flour, self-raising	1kg	54	Eggs	55g, 1 dozen	127
Rice, short grain	500g	35	Sugar, white	2kg pkt	90
Meat and seafoods—			Jam, strawberry	500g jar	100
Beef—			Tea	250g pkt	74
Rib (without bone)	1kg	381	Coffee, instant	150g jar	293
Rump steak	1kg	645	Tomato sauce	600ml bottle	73
T-bone steak, without			Margarine, poly-		
fillet	1kg	558	unsaturated	500g	92
Chuck steak	1kg	354	Baked beans (in tomato sauce)	440g can	40
Silverside, corned	1kg	404	Baby food	125g can	22
Sausages	1kg	242	Household supplies—		
Lamb—			Laundry detergent	1kg pkt	168
Leg	1kg	331	Dishwashing detergent	750ml	122
Loin chops	1kg	398	Facial tissues	pkt of 150	70
Forequarter chops	1kg	306	Toilet paper	2x550 sheet rolls	66
Pork—			Pet food	405g can	38
Leg	1kg	378	Alcoholic beverages—		
Loin Chops	1kg	415	Beer, chilled	740ml bottle	92
Chicken, frozen	1kg	209	Draught beer, public bar	285ml glass	54
Bacon, middle rashers	250g pkt	183	Scotch, nip, public bar	30ml	81
Beef, corned	340g can	164	Personal care products—		
Salmon, pink	220g can	123	Toilet soap	2x125g	72
Fruit and vegetables—			Toothpaste	110g tube	78
Oranges	1kg	55			

## WHOLESALE PRICE INDEXES

## General background

Earlier indexes of wholesale prices compiled by the Australian Bureau of Statistics were the Melbourne Wholesale Price Index and the Wholesale Price (Basic Materials and Foodstuffs) Index.

In the following section particulars are given of indexes relating to building, and materials used in, and articles produced by, manufacturing industry. In addition to the usefulness of these indexes in themselves, they are also of use in the Bureau's constant price estimates in the national accounting field.

## Specific indexes

*Melbourne Wholesale Price Index*

Past wholesale prices information can be found on page 638 of the *Victorian Year Book 1977*.

*Wholesale Price (Basic Materials and Foodstuffs) Index*

Past wholesale prices information can be found on page 638 of the *Victorian Year Book 1977*.

*Price Indexes of Materials used in Building*

The first of the two monthly indexes in this series, Materials Used in Building Other than House Building, was introduced in April 1969 and the second, Materials Used in

House Building, in November 1970. They are compiled for each State capital city for each month from July 1966, and for the financial years from 1966-67. The reference base of the indexes is the year 1966-67 = 100.0, and each index is a fixed weights index calculated by the method known as "the weighted arithmetic mean of price relatives".

Prices for use in these indexes are collected at the mid-point of the month to which the index refers, or as near to it as practicable. They relate to specified standards of each commodity and are obtained in all State capital cities from representative suppliers of materials used in building.

*Price Index of Materials used in Building Other than House Building*

This Index measures changes in the wholesale prices of selected materials used in the construction of buildings other than houses and low-rise flats (in general those up to three storeys). Since the weights are based on an average materials usage over a range of types of building within the defined area, the Index is not necessarily applicable to any specific building or type of building included in that area.

MELBOURNE—WHOLESALE PRICE INDEX OF MATERIALS USED IN BUILDING  
OTHER THAN HOUSE BUILDING  
(Base of each index: year 1966-67 = 100.0)

Group	1975-76	1976-77	1977-78	1978-79	1979-80
Concrete mix, cement, sand, etc.	191.8	216.2	235.9	248.5	300.5
Cement products	215.3	237.3	261.0	280.9	314.8
Bricks, stone, etc.	189.8	205.4	221.2	237.0	262.9
Timber, board, and joinery	212.0	238.1	256.7	268.5	302.8
Steel and iron products	239.6	272.3	296.3	314.1	347.9
Aluminium products	194.1	217.1	235.5	250.6	280.8
Other metal products	164.3	183.5	185.3	217.4	273.4
Plumbing fixtures	249.9	267.5	270.0	275.5	318.5
Miscellaneous materials	187.6	203.0	216.4	225.0	245.8
Electrical installation materials	177.4	199.6	215.3	242.6	285.4
Mechanical services components	201.6	225.6	247.3	268.1	298.1
Special purpose index (a)	214.1	240.1	259.8	275.1	310.3
All groups	209.4	234.8	254.4	271.4	306.6

(a) All groups excluding "Electrical installation materials" and "Mechanical services components".

*Price Index of Materials used in House Building*

This Index measures changes in the prices of selected materials used in the construction of houses. Its composition is in accordance with the usage of materials in actual houses which were selected as representative for the purpose. The Index does not purport to represent buildings of any kind other than houses. The house building construction types included are those which have brick, brick veneer, timber, or asbestos cement sheeting as the principal material for the outer walls.

MELBOURNE—WHOLESALE PRICE INDEX OF MATERIALS  
USED IN HOUSE BUILDING  
(Base of each index: year 1966-67 = 100.0)

Group	1975-76	1976-77	1977-78	1978-79	1979-80
Concrete mix, cement, and sand	189.4	213.1	232.0	244.8	292.9
Cement products	241.1	279.1	303.4	325.9	357.8
Clay bricks, tiles, etc.	192.3	209.4	223.7	239.4	266.9
Timber, board, and joinery	207.3	233.5	247.2	255.8	291.9
Steel products	231.9	269.4	295.8	316.2	347.9
Other metal products	185.4	206.2	219.9	242.6	285.1
Plumbing fixtures, etc.	204.6	218.7	221.7	228.4	261.1
Electrical installation materials	181.0	200.3	213.8	238.1	281.2
Installed appliances	166.8	181.9	195.4	203.8	220.7
Plaster and plaster products	168.1	175.8	187.7	199.5	217.3
Miscellaneous materials	186.7	208.2	221.4	230.7	255.0
All groups	200.1	223.6	238.6	251.4	283.4

Further reference: *Victorian Year Book 1977*, pp. 638-40

*Price Indexes of Metallic Materials*

Each of the two indexes in this monthly series was introduced in December 1972 and has been compiled for each month from July 1968, and since 1968-69. Separate indexes have not been calculated for each capital city. Each of the indexes is a fixed weights index compiled on the reference base 1968-69 = 100.0, using the method known as "the weighted arithmetic mean of price relatives". Index numbers for financial years are simple averages of the relevant monthly index numbers.

In the main, prices are collected at the mid-point of each month. Prices collected are, as far as possible, those normally charged to representative manufacturers for goods delivered into their stores.

*Price Index of Metallic Materials used in the Manufacture of Fabricated Metal Products*

This index includes important metallic materials selected and combined in accordance with a weighting pattern reflecting value of usage as reported at the 1968-69 Census of Manufacturing Establishments for establishments classified to the Fabricated Metal Products sub-division of Manufacturing Industry (Australian Standard Industrial Classification, sub-division 31). Index numbers are compiled on an Australia-wide basis. From the base year to December 1979, the index numbers were published for four groupings (Iron and steel, Aluminium, Copper and brass, and Other metallic materials) and an All Groups combination. However, because the All Groups index was being significantly affected by rapidly changing prices for silver, a special grouping "All groups, excluding silver" was published from January 1980 in order to indicate more accurately the general trend in prices for metallic materials. Also, it was no longer meaningful to publish the "Other metallic materials" index, and separate index numbers for the two components of that index, zinc and silver, are now published as shown in the following table:

**AUSTRALIA—WHOLESALE PRICE INDEX OF METALLIC MATERIALS  
USED IN THE MANUFACTURE OF FABRICATED METAL PRODUCTS**  
(Base of each index: year 1968-69 = 100.0)

Group	Value weight (a)	1975-76	1976-77	1977-78	1978-79	1979-80
	per cent					
Iron and steel	83.2	200.2	227.8	248.9	264.9	294.4
Aluminium	8.9	158.0	176.9	193.7	208.9	251.5
Copper and brass	5.7	137.5	158.1	153.9	179.2	216.6
Zinc	0.5	235.9	259.8	237.9	291.3	329.5
Silver	1.7	199.3	222.5	246.8	327.4	957.3
All groups	100.0	193.1	219.4	238.5	256.2	297.6
All groups, excluding silver		193.0	219.3	238.3	255.0	286.2

(a) Percentage contribution to All Groups Index at base year.

*Price Indexes of Copper Materials used in the Manufacture of Electrical Equipment*

Prices for each item included in the Index relate to representative goods of fixed specification and are collected each month from major Australian manufacturers of the relevant material.

**AUSTRALIA—WHOLESALE PRICE INDEXES OF COPPER MATERIALS  
USED IN MANUFACTURE OF ELECTRICAL EQUIPMENT**  
(Base of each index: year 1968-69 = 100.0)

Copper materials used in manufacture of—	1975-76	1976-77	1977-78	1978-79	1979-80
Electric motors and motor control equipment	139.7	156.7	153.1	173.9	204.6
High voltage and low voltage switch gear	145.3	167.3	163.0	194.6	236.9
Distribution transformers	128.1	145.6	140.0	159.1	185.1
Power transformers	122.4	144.3	138.9	167.3	205.4
General transformers	135.3	153.4	148.0	169.3	197.8

Further reference: *Victorian Year Book 1978*, p. 553



*Price Index of Materials used in Manufacturing Industry*

This monthly Index was introduced in July 1975 and relates to materials (including fuels) used in manufacturing industry. It completes the presentation of a set of price indexes which replaces the Wholesale Price (Basic Materials and Foodstuffs) Index, publication of which was discontinued in December 1970. Index numbers have been published from 1968-69 onwards and for the months from July 1968 onwards. The reference base of the Index is the year 1968-69 = 100.0. The Index is a fixed weights index and is calculated by the method known as "the weighted arithmetic mean of price relatives". Index numbers for financial years are simple monthly averages of the relevant monthly index numbers.

The composition of this Index is based on materials used by establishments classified to Division C, Manufacturing, of the Australian Standard Industrial Classification (ASIC). The Index is on a net basis, i.e., it relates in concept only to those materials which are used by establishments within the Manufacturing Division in Australia and which have been produced by establishments outside that Division. Such outside establishments are either Australian establishments classified to other divisions of Australian industry (e.g., mining or agriculture) or are overseas establishments (including overseas manufacturing establishments).

Materials purchased by establishments classified to the Australian Manufacturing Division from other establishments in that Division are outside the scope of the Index and are excluded, but similar materials when purchased from overseas are included. A material which undergoes transformation at a number of stages during manufacturing will be, at each stage, an input to particular manufacturing industries. However, in keeping with the scope and net basis of the Index, the material is priced only at the stage it first enters manufacturing. The pricing and the weights for the Index reflect usage of materials at the point of entry to the Manufacturing Division.

The items included in the Index were selected on the basis of values of materials used, in 1971-72, by establishments classified to the Manufacturing Division of ASIC. The selection was made from data reported in the 1971-72 Census of Manufacturing Establishments, and on 1971-72 import statistics. The selected items were allocated weights in accordance with estimated manufacturing usage in the year 1971-72.

The selected items have been published into broad index groups using two different classifications. Index numbers are published for each of the groups derived in this way. The classifications used for this purpose are: (1) Australian Standard Industrial Classification (ASIC), and (2) Standard International Trade Classification (SITC). In effect, the index numbers for index groups based on ASIC are on an "industry of origin basis", and in addition, the distinction between home produced and imported materials is made. Index numbers for index groups based on SITC are on a "commodity basis". The percentage contributions for each of the index items, groups, and categories are based on estimated usage in 1971-72, valued at the relevant prices applying in the reference base 1968-69.

Prices incorporated in the Index are obtained from representative suppliers and users in all States. Prices of home produced items are generally obtained from principal users (manufacturers) but in some cases from major suppliers (producers or wholesalers). Prices of imported items are obtained from suppliers (importers) and users (manufacturers). In concept, pricing for the Index is at the point at which the materials physically enter the manufacturing sector. Therefore, as far as possible, prices are on a "delivered into store basis". Prices relate to "goods of fixed specifications" with the aim of incorporating in the Index price changes for representative materials of constant quality.

Prices collected are mainly "monthly average prices" rather than prices relating to the mid-point of one month. This is because there is a high frequency of price changes for many of the materials included in the Index, and prices at one point of time within a month are not always representative of average prices for the month. Price series for electricity and gas are based on the average realised cost per unit of actual monthly sales to "industrial" users by selected major suppliers and are therefore subject to fluctuation due to changing usage patterns. In general, prices recorded in the Index for a given month refer to materials delivered to manufacturers in that month.

The treatment of the prices of transferred goods and seasonal items is explained in previous *Year Books*.

AUSTRALIA—PRICE INDEX OF MATERIALS USED IN MANUFACTURING  
INDUSTRY: GROUP INDEX NUMBERS BASED ON AUSTRALIAN STANDARD  
INDUSTRIAL CLASSIFICATION

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

Group	1975-76	1976-77	1977-78	1978-79	1979-80
Home produced materials—					
Agriculture	132.3	152.5	162.4	228.8	280.3
Forestry and fishing	213.7	245.2	273.5	263.5	300.3
Mining	163.3	189.2	211.4	r281.8	402.9
Electricity	137.9	148.8	160.9	173.8	186.7
Total home produced materials	142.0	163.2	176.7	r238.7	305.0
Imported materials—					
Agriculture	166.5	258.6	303.4	285.3	329.2
Mining	423.6	479.5	515.3	542.6	911.8
Manufacturing	162.6	182.1	201.6	222.1	261.8
Total imported materials	202.9	233.2	257.0	275.7	366.4
All groups	158.6	182.2	198.5	r248.8	321.7

AUSTRALIA—PRICE INDEX OF MATERIALS USED IN MANUFACTURING  
INDUSTRY: GROUP INDEX NUMBERS BASED ON STANDARD  
INTERNATIONAL TRADE CLASSIFICATION

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

Group	1975-76	1976-77	1977-78	1978-79	1979-80
Home produced and imported materials—					
Food, live animals, and tobacco	132.5	154.9	166.6	232.5	285.1
Crude materials (excluding fuels)	163.0	191.7	199.2	r227.4	288.2
Electricity, gas, and fuels	229.0	254.8	291.0	362.4	554.6
Imported manufactured materials—					
Chemicals	149.4	160.3	170.7	180.9	225.1
Metal manufactures, components for transport equipment and machinery	179.6	211.6	246.6	271.6	294.2
Other manufactured materials	148.4	164.5	185.1	201.3	230.3
All groups	158.6	182.2	198.5	r248.8	321.7

Further reference: *Victorian Year Book 1978*, pp. 549-51

*Price Indexes of Articles Produced by Manufacturing Industry*

These monthly indexes were first published in October 1976 and index numbers have been compiled from July 1968 onwards. These indexes measure changes in prices of articles produced by establishments classified to the Manufacturing Division of the Australian Standard Industrial Classification (ASIC). The indexes are on a net sector basis; that is, 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. Capital equipment produced is within the scope of the index even if sold or transferred to other manufacturing establishments in the sector.

A net index is provided for the Manufacturing Division of ASIC and also net indexes for each of the twelve sub-divisions within the Manufacturing Division. In addition, indexes are published for three special groupings which are components of particular net sub-division indexes.

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 or for use as capital equipment. Articles sold or transferred by establishments in the Manufacturing Division to other establishments in that division for further processing are outside the scope of this index. In other words, the pricing and weights for the All Manufacturing Industry Index reflect sales and transfers of articles at the point of exit from the Manufacturing Division.

The net sub-division indexes for each of the twelve sub-divisions represent movements in prices of goods produced by establishments in the respective sub-divisions, for sale or transfer to other sub-divisions within Manufacturing or to establishments outside the Manufacturing Division or for use as capital equipment. The pricing and weights for the net sub-division indexes reflect, in general, sales and transfers of articles at the point of exit from the respective sub-divisions.

For ASIC sub-divisions 21-22, 24, 25, 28, 31, 32, and 33, only a minor proportion of sales and transfers is to other Manufacturing sub-divisions. Therefore, the relevant components of the All Manufacturing Industry Index are regarded as providing valid indicators of price movement for these sub-divisions. For ASIC sub-divisions 23, 26, 27, 29, and 34, there is a significant proportion of sales to other sub-divisions of Manufacturing. To compile net indexes for these sub-divisions, it has therefore been necessary to price additional items to represent transactions between these and other sub-divisions, and also to establish weights appropriate to each sub-division (i.e., weights based on all articles produced by the sub-division for sale or transfer outside the sub-division).

In the case of sub-division 21-22, "Food, beverages, and tobacco", an index series is also published for the special groupings "Food, beverages, and tobacco, excluding meat and abattoir by-products, and raw sugar", in order to isolate some of the more uneven price movements which frequently occur in this sub-division. The other two special groupings, "Appliances and electrical equipment" and "Industrial machinery and equipment, etc." were first published in June 1977 following requests for a dissection of the other industrial machinery and equipment and household appliances sub-division index.

The items included in these indexes were selected on the basis of values of articles produced in 1971-72, by establishments classified to the Manufacturing Division of ASIC. The selection was made from data reported in the 1971-72 Census of Manufacturing Establishments.

The indexes are fixed weights indexes and are calculated by the method known as "the weighted arithmetic mean of price relatives". The selected items were allocated weights in accordance with estimated net sector production in the year 1971-72 valued at the relevant prices applying in the reference base year 1968-69. Many of the selected items carry not only the weights of directly priced articles but also the weight of unpriced articles whose prices are considered to move similarly to those of directly priced articles.

Most of the prices used in these indexes relate to the mid-point of the month. Prices are manufacturers' selling prices exclusive of excise and sales tax, and reflect the effects of subsidies and bounties paid to manufacturers.

The prices reflect industry selling practices. For example, if costs such as handling and distribution are included in the manufacturer's selling price, this is the price used in the index. Where handling and distribution charges are paid separately by the purchaser the prices used exclude such charges.

Prices in general relate to a standard representative set of transactions (in terms of quantity discounts, delivery arrangements, destination, etc.) in order to avoid variations in price that are attributable solely to a changing mix of transactions over time.

A technique known as model pricing is used to measure price change in cases where the same (i.e., constant quality) items are not produced and sold repetitively over time. This technique involves selecting a product of some recent period which is typical of a firm's output and which becomes the "model".

Price series used in these indexes relate to goods of fixed specifications in order to measure price changes for representative products of constant quality. When a significant change in specification occurs, the prices of the new article must be suitably adjusted to make them comparable with prices for the old standard before they are used in the index.

For the purpose of these indexes the aim is to determine actual transaction prices. It is therefore necessary to obtain information on discounts and reflect their effects in the indexes.

**AUSTRALIA—PRICE INDEX OF ARTICLES PRODUCED BY  
MANUFACTURING INDUSTRY: INDEXES FOR MANUFACTURING  
DIVISION AND SELECTED NET SUB-DIVISIONS OF MANUFACTURING**  
(Base of each index: year 1968-69 = 100.0)

Manufacturing Division and sub-division	1975-76	1976-77	1977-78	1978-79	1979-80
Manufacturing Division	177.8	196.9	213.8	237.4	274.9
Net sub-divisions (a)—					
Food, beverages, and tobacco (21-22)	163.5	180.0	195.6	226.4	266.5
Textiles (23)	159.7	178.6	193.3	205.1	228.8
Clothing and footwear (24)	185.2	208.1	225.2	238.4	255.3
Wood, wood products, and furniture (25)	219.9	246.8	264.0	280.4	315.5
Paper, paper products, and printing (26)	196.3	212.8	231.7	245.0	269.6
Chemical, petroleum, and coal products (27)	168.2	182.4	200.7	233.1	307.4
Glass, clay, and other non-metallic mineral products (28)	183.2	202.5	219.8	236.8	265.2
Basic metal products (29)	174.0	200.6	214.0	237.2	282.7
Fabricated metal products (31)	217.1	244.9	268.7	287.7	323.9
Transport equipment (32)	175.8	195.0	211.6	230.2	252.2
Other industrial machinery and equipment and household appliances (33)	179.2	199.4	215.3	232.2	261.3
Miscellaneous manufacturing products (34)	159.0	176.0	192.4	209.8	252.5

(a) ASIC sub-division codes are shown in brackets.

**AUSTRALIA—PRICE INDEXES OF ARTICLES PRODUCED BY  
MANUFACTURING INDUSTRY: SPECIAL GROUPINGS (a)**  
(Base of each index: year 1968-69 = 100.0)

Special groupings	1975-76	1976-77	1977-78	1978-79	1979-80
Food, beverages, and tobacco, excluding meat and abattoir by-products, and raw sugar	168.5	184.8	203.5	217.8	244.4
Other industrial machinery and equipment and household appliances (33)—					
Appliances and electrical equipment (332)	159.9	176.7	186.0	200.1	224.4
Industrial machinery and equipment, etc. (b) (331 and 333)	203.6	228.3	252.5	273.0	308.2

(a) ASIC sub-division codes are shown in brackets.

(b) Includes photographic, professional, and scientific equipment.

NOTE. A full description of the Manufacturing Division and selected sub-divisions is available in *Australian Standard Industrial Classification*, 1978.

Further reference: *Victorian Year Book 1978*, pp. 551-3

*Price Index of Electrical Installation Materials*

This special purpose index was introduced in 1964, and index numbers were published at quarterly intervals from August 1959 to February 1969, when monthly publication commenced. The Index has direct value as a measure of changes in aggregate cost of materials used in an important part of the building industry (other than house building).

**AUSTRALIA—WHOLESALE PRICE INDEX OF ELECTRICAL  
INSTALLATION MATERIALS**

(Base of each index: year 1959-60 = 100.0)

Group	Value weight(a)	1975-76	1976-77	1977-78	1978-79	1979-80
	per cent					
Conductors	40	178.1	197.5	199.3	232.1	288.1
Conduit and accessories	25	199.0	227.8	253.1	284.8	327.8
Switchboard and switchgear material	35	224.5	252.8	283.2	310.7	353.8
All groups	100.0	199.6	224.4	242.1	272.8	321.0

(a) At base year.

Further reference: *Victorian Year Book 1978*, p. 554

### EXPORT PRICE INDEX

The Export Price Index is a fixed weights index. Its purpose is to provide monthly comparisons, over a limited number of years, of the level of export prices of selected items, making no allowance for variations in quantities exported. The index numbers thus measure price changes only. The price series used in the index relate to specified standards and in most cases are combinations of prices for a number of representative grades, types, etc., of each commodity, with the aim of incorporating in the index price changes for exports of representative goods of constant quality.

An annual index of export prices was published by the Australian Bureau of Statistics from 1901 to 1962. From October 1962, the Export Price Index was published on a monthly basis with the reference base being year 1959-60 = 100.0. Index numbers from June 1969 were compiled on an interim basis which incorporated a re-weighting of the items contained in the original index and the inclusion of some additional items. This interim basis was introduced pending a comprehensive review of the index as a whole.

Following this extensive review and rebase, a revised expanded Export Price Index was published in July 1979 using a reference base of 1974-75 = 100.0. The weighting pattern of the revised index was based on the pattern of Australian exports during the years 1974-75, 1975-76, and 1976-77. This new index has a more comprehensive coverage of exports, particularly with regard to manufactured goods. Index numbers have been compiled for each month from July 1974 and from 1974-75 to 1978-79. Index numbers for financial years are simple averages of the monthly index numbers.

The selected commodities have been combined into two broad index groups. One group of index numbers has been defined in terms of the Australian Export Commodity Classification (AECC). The first of the accompanying tables presents index numbers for groups defined in terms of the Sections and Divisions of the AECC. The second group of index numbers is based on an "industry of origin" format defined in terms of the Australian Standard Industrial Classification (ASIC). Tables are presented showing index numbers for groups defined in terms of the Divisions and sub-divisions for the 1978 edition of the ASIC.

The revised Export Price Index relates to all exports of merchandise from Australia. It includes re-exports of merchandise (that is, goods which are imported to Australia and exported at a later date without physical transformation). The index numbers for each month relate to prices of those exports of merchandise that are physically shipped from Australia during the month.

The commodities directly represented in the index constituted 89 per cent of the total value of exports of merchandise from Australia in the period 1974-75 to 1976-77.

In general, prices are obtained from major exporters of the selected commodities included in the index. The point of pricing is the point at which the goods physically leave Australia, i.e., prices are on the basis free on board (f.o.b.) at the main Australian ports of export.

As the prices used in the index are expressed in Australian currency, changes in the relative values of the Australian dollar and overseas currencies can have a direct impact on

price movements for the many commodities that are sold in currencies other than Australian dollars. Where exports are sold at prices expressed in terms of a foreign currency and forward exchange cover is used, the prices used in the index exclude forward exchange cover.

**AUSTRALIA—EXPORT PRICE INDEX: INDEX NUMBERS BASED ON  
AUSTRALIAN EXPORT COMMODITY CLASSIFICATION (AECC)**  
(Base of each index: year 1974-75 = 100)

Year	AECC SECTIONS					
	All groups	Food and live animals	Crude materials inedible (except fuels)	Mineral fuels and lubricants	Animal and vegetable oils and fats	Chemicals and other manufactured exports
1975-76	109	97	115	144	98	101
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

  

Year	SELECTED AECC DIVISIONS					
	Meat and meat preparations	Dairy products and eggs	Fish and fish preparations	Cereals and cereal preparations	Fruit and vegetables	Sugar and sugar preparations
1975-76	115	93	138	94	98	89
1976-77	125	94	185	89	108	83
1977-78	154	107	200	81	160	72
1978-79	234	113	229	86	167	74
1979-80	285	123	230	107	184	95

  

Year	SELECTED AECC DIVISIONS					
	Hides, skins, and furskins raw	Textile fibres and their wastes	Metalliferous ores and metal scrap	Coal, coke, and briquettes	Petroleum, petroleum products, and related materials	Animal oils and fats
1975-76	123	105	119	152	119	98
1976-77	188	135	140	164	137	117
1977-78	198	139	151	176	141	136
1978-79	308	153	157	178	157	157
1979-80	326	181	189	180	241	169

  

Year	SELECTED AECC DIVISIONS					
	Manufactures of —		Power generating machinery and equipment	Machinery specialised for particular industries	Road vehicles	Gold
Iron and steel	Non-ferrous metals					
1975-76	84	93	114	126	117	91
1976-77	91	123	119	147	130	95
1977-78	96	125	139	166	145	120
1978-79	118	161	154	178	154	165
1979-80	145	255	173	195	166	347

**AUSTRALIA—EXPORT PRICE INDEX: INDEX NUMBERS BASED ON  
AUSTRALIAN STANDARD INDUSTRIAL CLASSIFICATION (ASIC)**  
(Base of each index: year 1974-75 = 100)

Year	ASIC DIVISIONS		
	Agriculture, forestry, fishing, and hunting	Mining	Manufacturing
1975-76	98	130	105
1976-77	106	148	119
1977-78	105	159	127
1978-79	114	163	150
1979-80	137	180	190

  

Year	SELECTED ASIC SUBDIVISIONS						
	Metallic minerals	Coal	Food, beverages, and tobacco	Textiles	Chemical, petroleum, and coal products	Basic metal products	Transport equipment
1975-76	116	152	101	107	116	102	119
1976-77	137	164	109	135	130	122	130
1977-78	147	176	118	140	137	128	145
1978-79	155	178	151	156	144	149	152
1979-80	180	180	179	183	231	209	169

Further reference: *Victorian Year Book 1978*, pp. 554-5

## HOUSEHOLD EXPENDITURE SURVEYS

## General

During 1974-75 and 1975-76, the Australian Bureau of Statistics conducted two surveys in order to obtain information about the expenditure patterns of private households. The 1974-75 survey was confined to a sample of households in the six State capital cities and Canberra (collection in Darwin being suspended in December 1974 due to cyclone Tracy), while the coverage of the 1975-76 survey was extended to include other urban and rural regions. Apart from limited attempts in 1910-11 and 1913 to assess the spending patterns of Australian households, these surveys were the first official collections of household expenditure statistics conducted in this country.

Perhaps the most important reason for the collection of data relating to expenditure at the household level is to provide information for use in improving the representativeness of the items and the weighting pattern used to compile the Consumer Price Index (see page 511). Household expenditure statistics also provide a rich source of data needed for a wide range of policy and research purposes. These include the planning of welfare services; assessing the need for, and effect of, programmes in fields such as housing, education, and health; assessing the impact of taxation and government benefits; and improving estimates of private final consumption expenditure in the National Accounts. Further information on the surveys can be found on pages 505-10 of the 1979 *Victorian Year Book*.

## VICTORIA—HOUSEHOLD EXPENDITURE BY REGIONS

Particulars	1974-75		1975-76		Victoria
	Melbourne	Melbourne	Urban regions (a)	Rural regions (b)	
Number of households in sample	2,544	653	498	176	1,327
Estimated total number of households in population ('000)	822.0	837.4	239.9	85.7	1,163.0
Average number of persons per household	3.15	3.08	3.09	3.38	3.10
Average age of household head (years)	45.03	45.92	45.02	48.83	45.95
Average weekly household income (\$)	212.22	241.97	207.54	204.41	232.10
AVERAGE WEEKLY HOUSEHOLD EXPENDITURE (\$)					
Commodity or service—					
Current housing costs (c)	22.95	26.41	21.06	11.03	24.18
Fuel and power	4.38	4.90	4.53	3.92	4.75
Food—	33.24	36.64	31.56	29.57	35.07
Bread, cakes, and cereals	3.66	4.00	3.63	3.83	3.91
Meat and fish	8.30	9.09	7.62	7.12	8.64
Dairy products, oils, and fats	4.81	5.39	4.78	5.55	5.27
Fruit and vegetables	4.77	5.26	3.94	4.32	4.92
Other food	11.69	12.91	11.59	8.76	12.34
Alcohol and tobacco	9.04	11.73	8.49	7.40	10.75
Clothing and footwear	15.65	17.98	14.22	9.27	16.56
Household equipment and operation	14.87	18.82	16.51	13.05	17.92
Medical care and health expenses	6.21	5.59	5.27	5.82	5.54
Transport and communication	25.90	35.35	31.03	31.06	34.14
Recreation and education	14.67	17.11	18.77	11.25	17.02
Miscellaneous goods and services	14.88	15.13	13.64	11.64	14.56
Total expenditure	161.83	189.66	165.08	134.02	180.49
Selected other payments (d)	43.47	48.19	43.45	37.62	46.43

(a) All towns and urban centres with a population of more than 500 persons (excluding the capital cities) as defined for purposes of the 1971 Census of Population and Housing.

(b) Localities with a population of less than 500 persons and rural areas.

(c) Included in current housing costs are both principal and interest components of any housing loan repayments. Excluded are outright purchase of, or deposit on, dwellings or land, and other payments of a capital nature.

(d) The main components of this item are income tax, superannuation contributions, life insurance premiums, purchases of and deposits on dwellings and land, and gambling payments. Receipts from sales of dwellings and land, and gambling winnings are offset against payments. These figures are subject to large sampling errors and should be treated with caution.

## BIBLIOGRAPHY

## ABS publications

A guide to the Consumer Price Index

Australian National Accounts: Outline of principal sources and methods (5212.0)

Average retail prices of selected items, six State capital cities and Canberra (quarterly) (6403.0)

- Consumer Price Index, monthly food group index, Darwin (6413.0)  
Consumer Price Index, monthly food group index, six State capital cities and Canberra (6402.0)  
Consumer Price Index (quarterly) (6401.0)  
Export Price Index (monthly) (6405.0)  
Household Expenditure Survey 1974-75  
    Bulletin No. 1. An outline of concepts, methodology and procedures (6507.0)  
    Bulletin No. 2. Preliminary results (6508.0)  
    Bulletin No. 3. Standard errors (6509.0)  
    Bulletin No. 4. Expenditure classified by income of household (6510.0)  
    Bulletin No. 5. Quarterly expenditure patterns (6511.0)  
    Bulletin No. 6. Expenditure classified by household composition (6512.0)  
    Bulletin No. 7. Income distribution (6513.0)  
    Bulletin No. 8. Expenditure classified by selected household characteristics (6514.0)  
Household Expenditure Survey 1975-76  
    Bulletin No. 1. Summary of results (6516.0)  
    Bulletin No. 2. Expenditure patterns of households of differing characteristics and compositions (6517.0)  
    Bulletin No. 3. Expenditure and income by States and Territories (6518.0)  
    Bulletin No. 4. Expenditure and income by regions (6519.0)  
Labour report (last issue No. 58, 1973, ref. No. 6.7)  
Monthly review of business statistics (1304.0)  
Monthly summary of statistics (1303.2)  
Price Index of Electrical Installation Materials (monthly) (6408.0)  
Price Index of Materials used in Building Other than House Building (monthly) (6407.0)  
Price Index of Materials used in House Building (monthly) (6408.0)  
Price Index of Materials used in Manufacturing Industry (monthly) (6411.0)  
Price Indexes of Articles Produced by Manufacturing Industry (monthly) (6412.0)  
Price Indexes of Metallic Materials (monthly) (6410.0)