

CHAPTER 2. WHOLESALE PRICES AND PRICE INDEXES

General

Two indexes of wholesale prices of basic materials have been compiled by the Bureau. These are: (i) The Melbourne Wholesale Price Index (now obsolete, *see* page 43), and (ii) The Wholesale Price (Basic Materials and Foodstuffs) Index.

A special purpose index 'Wholesale Price Index of Electrical Installation Materials' is also published by the Bureau (*see* page 41).

Work is proceeding on the preparation of new series of wholesale price index numbers.

Wholesale Price (Basic Materials and Foodstuffs) Index

1. General

After reviewing the list of items and weighting of the Melbourne Wholesale Price Index, the 1930 Conference of Statisticians resolved that a new index of wholesale prices of basic materials and foodstuffs should be compiled. This index—the Wholesale Price (Basic Materials and Foodstuffs) Index—extends back to the year 1928 and is compiled monthly.

2. Price quotations

The prices used in the index have in the main been obtained directly from manufacturers and merchants, and, with a few important exceptions, from Melbourne sources. Apart from locally produced building materials and one or two minor commodities, however, the price movements may be taken as representative of variations in wholesale prices of the selected items in most Australian markets.

Commodities in the index are priced in their primary or basic form wherever possible and in respect of imported materials as nearly as may be at the point where they first make effective impact on the local price structure. Thus the price of imported goods is not taken at the time of import, but rather on an ex-bond (or into factory) basis.

Broadly, where home-consumption prices exist for local products, they have been used in this index. During the year 1950-51 wool for local manufacture was subsidised and the home-consumption price for wool was used to calculate the index numbers shown in the table on pages 40-1.

3. Commodities and grouping

For purposes of this index basic materials (as opposed to certain of the foodstuffs) are commodities in the primary or basic forms in which they first enter into productive processes carried out in Australia. The list of items is divided into seven main groups, each of which is sub-divided into goods which are mainly imported and goods which are mainly home-produced. A full list of these commodities is set out below, showing the quantity-multipliers (weights) for each commodity. The percentage of the total aggregate value in 1960 contributed by each item and group is also shown.

4. Method of construction

The index is constructed on the simple aggregative fixed-weights formula. The weights (quantity-multipliers) are based on estimates of the average annual consumption of the commodities in Australia during the period 1928-29 to 1934-35 inclusive. Changes in usage, changes of category as between 'imported' and 'home-produced' for some commodities, and changes in the industrial structure have affected the validity of some of the weights in the index.

During 1956, supplies and prices of potatoes and onions fluctuated violently between abnormally wide limits. The fluctuations were so great as to dominate the movement of the sections of the index in which these items were included, namely, 'Foodstuffs and Tobacco', 'Goods Principally Home Produced' and 'Total All Groups'. In the circumstances, neither

seasonal adjustment nor conversion of the index to a changing weights formula could be applied to eliminate these transient fluctuations. Accordingly, in order to provide a representative measure of the general trend in wholesale prices, the index was reconstructed as from July 1936 by omitting potatoes and onions.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX
LIST OF COMMODITIES, UNITS OF MEASUREMENT, QUANTITY-MULTIPLIERS AND PERCENTAGE
OF TOTAL AGGREGATE IN 1960

Commodity	Unit	Quantity-multiplier (weight)	Percentage of total aggregate 1960	Commodity	Unit	Quantity-multiplier (weight)	Percentage of total aggregate 1960
Metals and Coal—				Rubber and Hides—			
Principally Imported—				Principally Imported—	lb	24,214,400	0 76
Aluminium	ton	985	0 04	Principally Home-produced—			
Iron and steel	ton	637,000	4 82	Calf skins	lb	4,455,000	0 12
Briquettes	ton	243,000	0 21	Cattle hides	lb	57,246,000	1 09
Copper, wire bars	ton	7,000	0 40	Tanning bark	ton	23,000	0 09
Coal	ton	9,300,000	10 90	Total			2 06
Lead, soft pig	ton	10,400	0 19	Building Materials—			
Tin, ingots	ton	1,250	0 23	Principally Imported—			
Zinc, ingots	ton	14,800	0 31	Timber, softwoods	1,000 sup ft	346,500	4 19
Total			17 10	Turpentine	sup gal	458,000	0 06
Oils, Fats and Waxes—				Principally Home-produced—			
Principally Imported—				Bricks	1,000	372,000	1 21
Coconut oil	ton	6,500	0 26	Cement	ton	479,000	0 87
Fuel oil	ton	170,000	0 66	Drain-pipes	ft	7,270,000	0 31
Linseed oil	gal	2,250,000	0 45	Glass, window	100	82,370	0 07
Lubricating oil	gal	3,960,000	0 26		sq ft		
Kerosene, power	gal	21,000,000	0 41	Lime	ton	51,144	0 08
Petrol	gal	218,000,000	5 79	Plaster	ton	53,000	0 21
Principally Home-produced—				Timber, hardwoods	100	2,575,000	3 20
Beeswax	lb	169,112	0 01	White lead	sup ft	60,000	0 12
Tallow	ton	26,000	0 32	Whiting	cwt	274,000	0 07
Total			8 16	Total			10 39
Textiles—				Foodstuffs and Tobacco(a)			
Principally Imported—				Principally Imported—			
Hemp	ton	5,575	0 16	Tapioca	cwt	754,860	0 54
Kapok	lb	6,160,000	0 14	Cocoa, raw	cwt	104,460	0 26
Jute fibre	ton	874	0 02	Coffee	lb	3,642,000	0 25
Phormium tenax	ton	2,275	0 04	Tea	lb	48,954,520	2 15
Silk, raw	lb	455,900	0 15	Mustard	doz lb	49,340	0 02
Principally Home-produced—				Herrings	doz lb	289,760	0 08
Cotton, raw	lb	15,900,000	0 40	Sald	doz	847,560	0 13
Wool, greasy	lb	50,200,000	1 90	Tobacco, leaf	4-oz (tins)	18,321,340	5 36
Total			2 81	Principally Home-produced—			
Chemicals—				Barley	bus	5,185,260	0 67
Principally Imported—				Maize	bus	330,640	0 05
Ammonium sulphate	ton	23,830	0 12	Oats	bus	15,713,240	1 04
Potash, muriate	ton	4,055	0 02	Rice	cwt	339,246	0 26
Potash, sulphate	ton	2,025	0 01	Wheat	bus	41,880,980	5 44
Soda ash	ton	21,400	0 13	Peas	bus	675,980	0 16
Soda, nitrate	ton	1,100	0 01	Sugar	ton	352,682	5 29
Soda, nitrate—				Beef	100 lb	7,352,520	14 63
Chilean	ton	3,600	0 02	Lamb	lb	87,245,740	1 48
Sulphur	ton	95,500	0 62	Mutton	lb	458,081,320	3 78
Principally Home-produced—				Pork	lb	49,923,380	1 38
Arsenic	ton	1,531	0 02	Butterfat	lb	204,156,640	6 57
Blood and bone	ton	34,431	0 18	Lard	lb	1,497,840	0 03
Methylated spirits	gal	2,374,000	0 09	Milk	gal	167,838,800	5 22
Soda crystals	ton	4,986	0 03	Currants	lb	10,391,520	0 17
Superphosphate	ton	704,144	1 44	Sultanas	lb	18,893,700	0 33
Sulphuric acid	ton	226,450	1 05	Grapes	ton	98,668	0 45
Total			3 74	Total			35 74
				All Groups—			
				Principally Imported			23 11
				Principally Home-produced			76 89
				Total			100 00

(a) Includes weights transferred from deleted articles.

5. Index numbers

Index numbers for each group of commodities and for all groups combined for the index of wholesale prices of basic materials and foodstuffs are given in the following table. Current index numbers, on the base: Average of three years ended June 1939 = 100, are published monthly in the mimeographed statistical bulletin *Wholesale Price (Basic Materials and Foodstuffs) Index* and in the *Monthly Review of Business Statistics*.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS

(Base of each Group: Year 1928 = 100)

Period	Basic Materials							Food-stuffs and Tobacco (a)	Basic Materials and Foodstuffs		
	Metals and Coal	Oils, Fats and Waxes	Textiles	Chemicals	Rubber and Hides	Building Materials	Total		Goods principally Imported (b)	Goods principally Home-produced (a)	All Groups (a)
1928	100	100	100	100	100	100	100	100	100	100	100
1941	88	134	82	106	98	137	112	105	156	91	107
1942	97	151	93	116	104	154	125	116	180	99	119
1943	103	160	110	118	106	181	135	121	199	102	126
1944	103	160	108	118	106	183	135	123	200	104	127
1945	103	153	108	117	106	184	133	127	198	106	129
1946	102	142	119	116	104	187	131	129	194	108	129
1947	107	142	165	116	94	194	137	137	202	114	136
1948	129	159	234	127	100	204	157	156	217	135	155
1949	160	166	254	138	96	213	175	172	225	154	172
1950	179	179	382	179	155	258	208	200	263	182	202
1951	235	196	475	229	248	327	261	242	299	232	248
1952	299	216	408	277	193	432	304	272	325	272	285
1953	307	217	467	279	154	394	301	286	307	285	291
1954	305	204	387	260	154	380	290	293	296	286	288
1955	314	203	341	259	228	411	298	304	312	294	298
1956	322	219	346	272	240	466	316	309	332	302	309
1957	317	227	363	286	221	486	322	308	339	302	311
1958	311	220	272	278	197	457	304	311	318	300	304
1959	306	216	279	271	273	445	303	319	308	308	308
1960	316	211	278	272	278	459	308	349	308	332	327
1961	310	204	286	274	238	460	303	331	301	319	314
1962	306	198	290	268	216	460	298	318	296	309	306
1963	303	196	338	249	176	473	298	329	300	316	312
1964	302	195	337	234	175	516	303	339	303	324	319
1965	310	199	296	245	198	531	308	355	304	338	330
1966	309	207	313	298	236	533	319	372	309	355	344
1965—											
January	309	196	296	235	185	530	305	343	305	328	322
February	310	196	299	237	180	530	306	341	302	327	321
March	311	196	286	237	179	530	305	339	302	326	320
April	313	196	286	237	184	530	306	346	303	331	324
May	313	195	289	237	187	530	306	350	303	333	326
June	311	195	289	237	189	530	306	355	301	338	329
July	310	196	292	237	193	533	307	364	301	344	334
August	309	196	292	237	205	533	307	379	301	355	342
September	309	208	296	237	213	534	311	374	308	351	341
October	306	207	305	269	216	533	313	359	308	342	334
November	307	206	312	269	221	533	314	353	308	339	331
December	307	206	313	269	228	530	314	353	307	339	331

(a) Excluding potatoes and onions. See para. 4, pages 38-9. (b) Represents only such imported commodities as are included in the Wholesale Price Index and does not measure changes in prices of all imports.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX NUMBERS—*continued*

Period	Basic Materials							Food-stuffs and Tobacco (a)	Basic Materials and Foodstuffs		
	Metals and Coal	Oils, Fats and Waxes	Textiles	Chemicals	Rubber and Hides	Building Materials	Total		Goods principally Imported (b)	Goods principally Home-produced (a)	All Groups (a)
1966—											
January	306	208	313	269	235	530	314	351	308	338	331
February	308	208	314	278	246	531	317	357	309	343	335
March	308	208	318	287	269	531	319	376	309	357	346
April	307	207	322	287	266	531	319	372	310	354	344
May	305	207	322	287	255	532	317	369	309	351	341
June	306	207	322	287	230	532	317	367	308	350	340
July	306	207	322	304	229	532	318	374	309	356	344
August	311	208	318	317	234	532	322	382	310	363	350
September	312	208	309	315	223	536	321	381	309	363	349
October	311	208	299	315	207	538	320	379	310	360	348
November	312	207	299	315	212	538	320	379	310	360	348
December	313	206	298	315	223	538	320	378	311	360	348

(a) Excluding potatoes and onions. See para. 4, pages 38-9. (b) Represents only such imported commodities as are included in the Wholesale Price Index and does not measure changes in prices of all imports.

Wholesale Price Index of Electrical Installation Materials

1. General

This special purpose index was introduced in 1964 and index numbers have been published at quarterly intervals from August 1959 onwards. In addition to its use in connection with the Bureau's constant price estimates in the national accounting field, the index has a direct value as a measure of changes in the aggregate cost of materials used in an important part of the building industry (other than house-building).

2. Commodities and grouping

The items in this index have been selected as representative of materials used in electrical installation in structures such as hospitals, schools, factories and multi-storied commercial buildings and flats. These items are divided into three main groups for which separate indexes in addition to the 'All Groups' index are compiled. The combination of materials selected is fixed as to quantity and quality. A list of the components of the index is set out below with the percentage contribution of each to the All Groups index in the reference base year 1959-60.

3. Price quotations

The items are priced as at the middle of the month for which index numbers are published. The basis of pricing is the price to electrical contractors, delivered on site or into store, metropolitan area Sydney or Melbourne. The price series used relate to specific standards for each item and in some cases are combinations of prices for different makes, types, etc.

The units of quantity specified as the basis for collecting prices are representative lots normally purchased by electrical contractors, inclusive of quantity discounts and packing and quantity extras, etc.

4. Method of construction

The index is a fixed-weights index with the reference base: Year 1959-60 = 100. In general, the weights were derived from information relating to the values of materials used in selected

representative projects in Sydney and Melbourne during the three years 1960-61 to 1962-63. The projects selected for this purpose had a minimum electrical materials and labour content of \$10,000. Selected representative items carry the weights of similar items not directly priced.

The index is compiled by the method known as the weighted average of price relatives. Each quarter, base period percentage value weights are applied to indexes of price movement relative to 1959-60.

**WHOLESALE PRICE INDEX OF ELECTRICAL INSTALLATION
MATERIALS**
COMPOSITION AND WEIGHTING PATTERN AS AT REFERENCE BASE YEAR: 1959-60

Components	Percentage contribution to All Groups index
1. CONDUCTORS GROUP	40.00
Mains—	
Insulated cables	14.79
Glands	0.70
Bare copper strand	0.50
Copper bus-bar	3.50
	19.49
Circuits—	
Insulated cables and wire	19.08
Bare copper strand	1.43
	20.51
2. CONDUIT AND ACCESSORIES GROUP	25.00
Conduit and Ducting—	
Metal conduit	10.79
Metal and plastic ducting	9.46
	20.25
Accessories—	
Metal and plastic junction boxes	2.59
Metal and plastic accessories—Other	2.16
	4.75
3. SWITCH-BOARD AND SWITCH-GEAR MATERIAL GROUP	35.00
Bakelite Accessories—	
Mounting blocks	0.65
Switches	1.40
Terminal boxes	0.10
	2.15
Fluorescent Components and Lamps—	
Fluorescent tubes and starters	1.37
Incandescent lamps	0.58
	1.95
Iron Clad Accessories—	
Switch plug	1.67
Plug top	0.64
Other accessories	1.30
	3.61
Switch-board Accessories' Components—	
Mild steel	3.07
Aluminium bar	0.86
Contactors	4.90
Circuit breakers	11.00
Other accessories	7.46
	27.29
TOTAL	100.00

5. Index numbers

Index numbers for each group of items and for all groups combined for the index of wholesale prices of electrical installation materials are given in the following table. Current index numbers are published quarterly in the mimeographed statistical bulletin *Wholesale Prices—Price Index of Electrical Installation Materials*.

**WHOLESALE PRICE INDEX OF ELECTRICAL INSTALLATION
MATERIALS**

GROUPS AND ALL GROUPS—INDEX NUMBERS
(Base of each Index: Year 1959-60 = 100.0 (a))

Period	Conductors	Conduit and Accessories	Switch-board and Switch-gear Material	All Groups
Year—				
1959-60	100.0	100.0	100.0	100.0
1960-61	99.5	102.3	100.9	100.7
1961-62	98.7	102.8	99.8	100.1
1962-63	96.8	103.6	100.5	99.8
1963-64	93.2	103.7	100.8	98.5
1964-65	110.6	104.6	105.2	107.2
1965-66	105.8	104.2	106.6	105.7
1961-62—November	98.6	102.5	99.7	100.0
February	98.7	102.5	99.9	100.1
May	98.7	103.6	99.9	100.4
1962-63—August	97.9	103.6	100.1	100.1
November	97.9	103.6	100.6	100.3
February	97.9	103.6	100.6	100.3
May	93.4	103.6	100.7	98.5
1963-64—August	93.3	103.4	100.8	98.5
November	93.3	103.8	100.8	98.6
February	93.5	103.8	100.8	98.7
May	92.6	103.8	100.9	98.3
1964-65—August	96.4	104.4	103.8	101.0
November	103.3	104.4	104.7	104.0
February	121.3	104.4	106.0	111.7
May	121.3	105.1	106.3	112.0
1965-66—August	104.2	105.3	106.3	105.2
November	104.3	104.1	106.3	105.0
February	108.3	103.7	106.9	106.6
May	106.5	103.8	106.9	106.0
1966-67—August	124.1	104.5	106.9	113.2
November	122.6	106.2	109.8	114.0

(a) The figures appearing after the decimal points are inserted to avoid the distortions that would sometimes occur in rounding off the figures to the nearest whole number.

Melbourne Wholesale Price Index

An index of Melbourne wholesale prices was first computed in 1912. It related chiefly to basic materials and foods weighted in accordance with consumption in the years immediately preceding that date. Neither the list of items nor the weighting was varied except for some changes in the building materials group in 1949. The series has some historical significance as a measure of changes in the prices, since the year 1861, of its component items combined in the proportions in which they were in common use about the year 1910. A description of the index and a list of commodities included in it were published in Labour Report No. 38, 1949, pages 43-5. Index numbers up to the year 1961, the last period for which the index was compiled, are shown in Labour Report No. 49, page 42.

International comparisons: Wholesale price index numbers

The following table gives index numbers of wholesale prices during the period 1958 to December 1966, for Australia and other countries. Except where otherwise noted, the average prices in each country for the year 1958 are taken as base (= 100). The figures, which have been taken from the *Monthly Bulletin of Statistics* published by the Statistical Office of the United Nations, show fluctuations in prices in each country, and do not measure relative price levels as between the various countries included.

INDEX NUMBERS OF WHOLESALE PRICES IN VARIOUS COUNTRIES
 (Source: *Monthly Bulletin of Statistics* of the Statistical Office of the United Nations)
 (Base: 1958 = 100)

Period	AUSTRALIA	BELGIUM	BRAZIL	CANADA	DENMARK	FRANCE	GERMANY (Fed. Rep.)	INDIA	IRELAND(g)
1958	100	100	100	100	100	100	100	100	100
1959	101	100	138	101	100	105	99	104	100
1960	107	101	181	101	100	107	100	111	100
1961	103	100	250	102	102	110	102	113	101
1962	100	101	383	105	-105	113	103	115	105
1963	102	104	664	107	108	117	104	119	106
1964	105	109	1,273	108	111	119	104	134	113
1965	108	110	1,925	110	115	121	107	145	117
1966	113	112	2,619	114	118	123	109	165	120
1965—									
March Qtr	106	110	1,772	108	114	120	106	140	117
June "	107	110	1,873	110	116	121	107	141	119
Sept. "	111	109	1,970	110	115	119	107	149	117
Dec. "	109	111	2,078	111	116	122	108	151	117
1966—									
March Qtr	111	112	2,340	113	118	124	109	154	118
June "	112	114	2,530	114	118	124	109	163	121
Sept. "	114	112	2,720	114	117	122	109	171	120
Dec. "	114	112	2,885	114	118	124	109	174	119

Period	ITALY	JAPAN (Tokyo)	NETHERLANDS	NEW ZEALAND	NORWAY	PHILIPPINES (Manila)	SWEDEN	SOUTH AFRICA(b)	UNITED KINGDOM	UNITED STATES OF AMERICA
1958	100	100	100	100	100	100	100	100	100	100
1959	97	101	101	102	100	101	100	100	101	100
1960	98	102	99	102	101	106	103	101	101	100
1961	98	103	98	102	102	111	105	100	100	100
1962	101	101	99	102	104	116	107	101	100	100
1963	106	103	101	105	104	128	110	102	102	100
1964	110	103	108	110	109	134	115	104	106	100
1965	112	104	111	111	112	137	120	108	107	102
1966	113	108	117	112	114	143	124	112	109	105
1965—										
March Qtr	111	104	110	110	111	136	119	106	107	101
June "	111	104	112	111	111	135	120	107	107	102
Sept. "	111	104	111	112	113	137	119	108	106	102
Dec. "	113	105	113	112	113	139	121	109	107	103
1966—										
March Qtr	114	107	116	112	113	140	123	110	109	105
June "	114	108	119	112	113	143	124	111	112	105
Sept. "	113	109	117	112	115	144	123	113	110	106
Dec. "	113	110	116	111	115	144	124	114	109	105

(a) Home-produced goods only. (b) Beginning 1961, Base: November 1960 = 100.

NOTE. The symbol - on each side of an index number (e.g. -95-) indicates that two series have been linked at that period. The symbol — between two index numbers indicates that it is not possible to link two series (because of change in scope, etc.) and therefore the index numbers are not comparable with each other even where they are shown on the same base period.