

CHAPTER II.—WHOLESALE PRICES AND PRICE INDEXES.

§ 1. 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 § 4, page 46), 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 § 3, page 44.)

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

§ 2. 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 subsidized and the home-consumption price for wool was used to calculate the index numbers shown in the table on page 43.

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. These 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—			
Aluminum	ton	985	0.04	Rubber, crude	lb.	24,214,400	0.76
Principally Home-produced—				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	gallon	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	foot	7,270,000	0.31
Linseed oil	gallon	2,250,000	0.43	Glass, window	100 sq. ft.	82,370	0.07
Lubricating oil	gallon	3,960,000	0.26	Lime	ton	51,144	0.08
Kerosene, power	gallon	21,000,000	0.41	Plaster	ton	33,000	0.21
Petrol	gallon	218,000,000	5.79	Timber, hardwoods	100 sup. ft.	2,575,000	3.20
Principally Home-produced—				White lead	cwt.	60,000	0.12
Beeswax	lb.	169,112	0.01	Whiting	cwt.	274,000	0.07
Tallow	ton	26,000	0.32	Total .. .. .	..	..	10.39
Total .. .. .	..	..	8.16	Foodstuffs and Tobacco(a)—			
Textiles—				Principally Imported—			
Principally Imported—				Tapoca	cwt.	754,860	0.54
Hemp	ton	5,575	0.16	Cocoa, raw	cwt.	104,460	0.26
Kapok	lb.	6,160,000	0.14	Coffee	lb.	3,642,000	0.25
Jute fibre	ton	874	0.02	Tea .. .. .	..	48,954,520	2.15
Phormium tenax	ton	2,275	0.04	Mustard	doz. lb.	49,340	0.02
Silk, raw	lb.	455,900	0.15	Herrings	doz. lb.	289,760	0.08
Principally Home-produced—				Sid	doz.	847,560	0.13
Cotton, raw	lb.	15,900,000	0.40	Tobacco, leaf	4-oz. tins	18,321,340	5.36
Wool, greasy	lb.	50,200,000	1.90	Principally Home-produced—			
Total .. .. .	..	..	2.81	Barley	bushel	5,185,260	0.67
Chemicals—				Maize	bushel	330,640	0.05
Principally Imported—				Oats	bushel	15,713,240	1.04
Ammonium sulphate	ton	23,830	0.12	Rice	cwt.	339,246	0.26
Potash, muriatic	ton	4,053	0.02	Wheat	bushel	41,880,980	5.44
Potash, sulphate	ton	2,023	0.01	Peas	bushel	675,980	0.16
Soda ash	ton	21,400	0.13	Sugar	ton	352,682	5.29
Soda, nitrate	ton	1,100	0.01	Beef	100 lb.	7,352,520	14.63
Soda, nitrate—				Lamb	lb.	87,245,740	1.48
Chilean	ton	3,600	0.02	Mutton .. .. .	..	458,081,320	3.78
Sulphur	ton	95,500	0.62	Pork	lb.	49,923,380	1.98
Principally Home-produced—				Butterfat	lb.	204,156,640	6.57
Arsenic	ton	1,531	0.02	Lard .. .. .	..	1,497,840	0.03
Blood and bone	ton	34,431	0.18	Milk	galton	167,838,800	5.22
Methylated spirits	gallon	2,374,000	0.09	Currants .. .. .	..	10,391,520	0.17
Soda crystals	ton	4,986	0.03	Sultanas	lb.	18,893,700	0.33
Superphosphate	ton	704,144	1.44	Grapes	ton	98,668	0.45
Sulphuric acid	ton	226,450	1.05	Total .. .. .	..	..	55.74
Total .. .. .	..	..	3.74	All Groups—			
				Principally Imported .. .. .	..	..	21.11
				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.						Total.	Foodstuffs and Tobacco. (a)	Basic Materials and Foodstuffs.		
	Metals and Coal.	Oils, Fats and Waxes.	Textiles.	Chemicals.	Rubber and Hides.	Building Materials.			Goods principally Imported. (b)	Goods principally Home-produced. (a)	All Groups. (a)
1928	100	100	100	100	100	100	100	100	100	100	100
1929	100	102	83	98	77	98	98	107	101	103	103
1930	95	108	61	93	55	100	93	95	105	92	95
1931	89	109	57	98	58	101	92	81	111	79	87
1932	83	107	54	98	53	98	88	79	108	76	84
1933	82	88	62	95	56	100	83	78	101	75	81
1934	79	82	66	89	60	98	80	81	99	73	81
1935	74	88	62	82	59	97	79	85	103	76	83
1936	72	91	76	82	72	99	82	90	105	81	86
1937	79	95	87	82	89	110	91	95	113	86	92
1938	80	95	61	83	66	104	88	96	109	85	91
1939	81	97	65	84	76	105	90	92	111	83	90
1940	84	123	78	97	93	127	104	99	134	90	100
1941	68	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
1964—											
January ..	300	196	363	233	166	493	300	324	301	312	309
February ..	300	196	367	234	166	507	302	325	303	314	311
March	301	196	367	234	166	510	303	332	304	319	315
April	303	196	350	234	168	510	303	336	302	322	317
May	302	195	329	234	173	509	301	343	303	326	320
June	301	193	332	234	174	509	300	346	302	327	321
July	304	194	332	235	176	521	303	348	305	329	324
August	306	194	333	235	178	522	305	348	305	330	324
September ..	303	194	327	235	179	522	303	347	303	330	323
October	303	194	321	235	180	526	303	342	303	327	321
November ..	302	195	317	235	186	530	304	339	305	324	319
December ..	303	196	303	235	190	530	304	340	304	325	320

(a) Excluding potatoes and onions. See para. 4, pages 41-42. (b) Represents only such imported commodities as are included in the Wholesale Price Index and does not measure changes in prices of all imports.

§ 3. Wholesale Price Index of Electrical Installation Materials.

1. **General.**—This special purpose index was introduced in 1964 and index numbers have been published for quarterly periods 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 aggregate cost of materials used in an important part of the building industry (other than house-building). It is compiled and published quarterly.

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. Base period percentage value weights are applied to quarterly 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

WHOLESALE PRICE INDEX OF ELECTRICAL INSTALLATION MATERIALS—
continued.

Components.	Percentage Contribution to All Groups Index.
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
1959-60—August	99.1	96.1	99.4	98.5
November	99.7	100.6	99.2	99.8
February	99.9	101.7	100.7	100.6
May	101.3	101.7	100.7	101.2
1960-61—August	101.1	101.9	100.9	101.2
November	99.7	102.2	100.9	100.7
February	98.6	102.5	100.8	100.4
May	98.7	102.5	101.1	100.5
1961-62—August	98.6	102.5	99.6	100.0
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

(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.

§ 4. Melbourne Wholesale Price Index.

1. General.—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 43–45. 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.

§ 5. International Comparisons: Wholesale Price Index Numbers.

The following table gives index numbers of wholesale prices during the period 1958 to December, 1964, 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 ^(a)
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
1964—									
March Qtr.	102	107	989	108	109	119	104	124	109
June	105	108	1,171	108	111	118	104	129	113
Sept.	106	109	1,338	108	111	118	104	140	114
Dec.	105	111	1,560	108	112	120	106	141	115

Period.	ITALY.	JAPAN (Tokyo).	NETHERLANDS.	NEW ZEALAND.	NORWAY.	PHILIPPINES (Manila).	SWEDEN.	SOUTH AFRICA ^(a)	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
1964—										
March Qtr.	110	104	107	109	107	134	114	103	106	100
June	109	103	107	110	108	133	115	103	105	100
Sept.	109	103	107	110	110	134	116	105	106	100
Dec.	111	104	109	110	111	134	118	107	107	100

(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 during 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.