

CHAPTER II.—WHOLESALE PRICES AND PRICE INDEXES.

§ 1. General.

Two indexes of wholesale prices are compiled by the Bureau. These are: (i) The Melbourne Wholesale Price Index; and (ii) The Wholesale Price (Basic Materials and Foodstuffs) Index. Particulars of the Melbourne Wholesale Price Index, which is now obsolescent, are given in § 3 commencing on page 27 below.

After reviewing the list of items and weighting of this index the 1930 Conference of Statisticians resolved that a new index of Wholesale Prices of Basic Materials and Foodstuffs should be compiled. This index extends back to the year 1928 and is compiled monthly. This Wholesale Price (Basic Materials and Foodstuffs) Index is one of a series of wholesale price indexes designed for special purposes.

§ 2. Wholesale Price (Basic Materials and Foodstuffs) Index.

1. 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 basic materials 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. The home-consumption price for wool was used to calculate the index numbers shown in the table on page 27.

2. 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 group being 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 1956 contributed by each group is also shown.

3. 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 upwards and downwards 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 of the case, 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 general trend in wholesale prices, the index was reconstructed as from July, 1936 by omitting potatoes and onions.

Consideration is being given to the enlargement of the index to cover additional groups and to revision of the weighting pattern of the index.

WHOLESALE PRICE (BASIC MATERIALS AND FOODSTUFFS) INDEX.

LIST OF COMMODITIES, UNITS OF MEASUREMENT AND QUANTITY-MULTIPLIERS.

Commodity.	Unit.	Quantity-multiplier. (Weight.)	Commodity.	Unit.	Quantity-multiplier. (Weight.)
Metals and Coal—			Rubber and Hides—		
Principally Imported—			Principally Imported—		
Aluminium ..	ton	985	Rubber, crude ..	lb.	24,214,400*
Principally Home-produced—			Principally Home-produced—		
Iron and steel ..	ton	637,000	Calf skins ..	lb.	4,455,000
Briquettes ..	ton	243,000	Cattle hides ..	lb.	57,246,000
Copper, wire bars ..	ton	7,000	Tanning bark ..	ton	23,000
Coal ..	ton	9,300,000			
Lead, soft pig ..	ton	10,400	Building Materials—		
Tin, ingots ..	ton	1,250	Principally Imported—		
Zinc, ingots ..	ton	14,800	Timber, softwoods	1,000 sup. ft.	346,500*
			Turpentine ..	gallon	458,000
Oils, Fats and Waxes—			Principally Home-produced—		
Principally Imported—			Bricks ..	1,000	372,000*
Coconut oil ..	ton	6,500	Cement ..	ton	479,000*
Fuel oil ..	ton	170,000	Drain-pipes ..	foot	7,270,000*
Linseed oil ..	gallon	2,250,000	Glass, window ..	100	82,370
Lubricating oil ..	gallon	3,960,000			
Kerosene, power ..	gallon	21,000,000	Lime ..	ton	51,144
Petrol ..	gallon	218,000,000	Plaster ..	ton	53,000*
Principally Home-produced—			Timber, hardwoods	100	2,575,000
Beeswax ..	lb.	169,112	White lead ..	cwt.	60,000
Tallow ..	ton	26,000	Whiting ..	cwt.	274,000
Textiles—			Foodstuffs and Tobacco(a)—		
Principally Imported—			Principally Imported—		
Hemp ..	ton	5,575	Tapioca ..	cwt.	754,860*
Kapok ..	lb.	6,160,000	Cocoa, raw ..	cwt.	104,460*
Jute fibre ..	ton	874	Coffee ..	lb.	3,642,000
Phormium tenax ..	ton	2,275	Tea ..	lb.	48,954,520
Silk, raw ..	lb.	455,900	Mustard ..	doz. lb.	49,340
Principally Home-produced—			Herrings ..	doz. lb.	289,760*
Cotton, raw ..	lb.	15,900,000	Sild ..	doz.	847,560
Wool, greasy ..	lb.	50,200,000			
			Tobacco, leaf ..	4-oz. tins	18,321,340
Chemicals—			Principally Home-produced—		
Principally Imported—			Barley ..	bushel	5,185,260
Ammonium sulphate ..	ton	23,830	Maize ..	bushel	330,640
Potash, muriate ..	ton	4,055	Oats ..	bushel	15,713,240*
Potash, sulphate ..	ton	2,025	Rice ..	cwt.	339,246
Soda ash ..	ton	21,400	Wheat ..	bushel	41,880,980
Soda, nitrate ..	ton	1,100	Peas ..	bushel	675,980
Soda, nitrate—			Sugar ..	ton	352,682
Chilean ..	ton	3,600	Beef ..	100 lb.	7,352,520
Sulphur ..	ton	95,500	Lamb ..	lb.	87,245,740
Principally Home-produced—			Mutton ..	lb.	458,081,320
Arsenic ..	ton	1,531	Pork ..	lb.	49,923,380
Blood and bone ..	ton	34,431	Butter fat ..	lb.	204,156,640
Methylated spirits ..	gallon	2,374,000	Lard ..	lb.	1,497,840
Soda crystals ..	ton	4,986	Milk ..	gallon	167,838,800*
Superphosphate ..	ton	704,144	Currants ..	lb.	10,391,520
Sulphuric acid ..	ton	226,450	Sultanas ..	lb.	18,893,700
			Grapes ..	ton	98,668

(a) Includes weights transferred from deleted articles.

The percentage of the total aggregate value in 1956 contributed by each group was as follows:—Metals and coal, 18.37 per cent.; oils, fats and waxes, 8.95; textiles, 3.69; chemicals, 3.95; rubber and hides, 1.88; building materials, 11.14; foodstuffs and tobacco, 52.02. Goods principally imported comprised 26.29 per cent. of the total aggregate in 1956 and goods principally home-produced, 73.71 per cent.

4. **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 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
1929	100	102	83	98	77	98	98	107	101	103	103
1930	95	108	61	95	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	75	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	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	321	308	339	302	311
1957—											
January	324	227	383	283	232	490	326	304	347	300	311
February .. .	322	230	390	283	225	490	327	307	349	302	313
March	320	230	382	283	224	490	325	307	345	302	313
April	320	230	393	283	219	490	326	307	343	303	313
May	317	230	394	283	219	490	325	301	341	299	309
June	316	226	379	284	218	490	322	311	337	305	313
July	314	226	377	291	214	490	322	315	334	309	315
August	316	226	355	291	214	490	321	321	335	312	318
September ..	316	226	352	291	215	479	319	317	332	309	315
October	313	226	326	291	223	480	317	305	334	299	307
November .. .	313	226	319	285	224	479	315	298	337	292	303
December .. .	312	223	301	285	222	479	313	302	334	295	304

(a) During 1956 these indexes were reconstructed from July, 1936 by excluding potatoes and onions. See para. 3 on page 25. (b) Represents only such imported commodities as are included in the Wholesale Price Index and does not measure changes in price of all imports.

NOTE.—The figures given in this table are comparable in the vertical columns, but are not directly comparable horizontally.

§ 3. Melbourne Wholesale Price Index.

1. **General.**—An index of Melbourne wholesale prices was first computed in 1912. It relates 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 has been varied. Consequently, the index is outmoded for current use and is a measure of variations in wholesale prices based on the weighting originally determined. It has some historic significance as a measure of changes in the prices of its component items combined in the

proportions in which they were in common use about the year 1910. It is now published only on an annual basis and is used mainly as an approximate indication of long-term trends since the year 1861, for which it was first compiled. A description of the index and a list of the commodities included in it were published in Labour Report No. 38, 1949, pages 43-45.

2. Index Numbers.—1861 to 1953 (1911 base).—Index numbers for each group of commodities, as well as for all groups combined, are shown in the following table:—

MELBOURNE WHOLESALE PRICE INDEX NUMBERS.

(Base of each Group: Year 1911 = 1,000.)

Year.	Metals and Coal.	Wool, Cotton, Leather, etc.	Agricultural Produce, etc.	Dairy Produce.	Groceries.	Meat.	Building Materials.	Chemicals.	All Groups.
1861	1,438.	1,381	1,583	1,008.	1,963	..	1,070	2,030	1,538.
1871	1,096	1,257	1,236	864	1,586	..	1,044	1,409	1,229
1881	1,178	1,115	1,012	935	1,421.	..	1,091	1,587	1,121
1891	895	847	1,024	995	1,032	888	780	1,194	945
1901	1,061	774	928	1,029	1,048	1,345	841	917	974
1902	1,007	756	1,192	1,215	945	1,447	837	881	1,051
1903	923	834	1,209	1,059	936	1,443	875	921	1,049
1904	821	885	754	876	916	1,427	845	875	890
1905	772	850	894	980	942	1,209	809	859	910
1906	882	978	916	972	923	1,110	896	864	948
1907	1,037	1,017	973	1,020	948	1,294	968	961	1,021
1908	1,033	901	1,312	1,198	968	1,335	935	891	1,115
1909	1,014	907	1,000	1,119	978	1,088	911	815	993
1910	1,004	1,052	969	1,100	999	1,008	996	898	1,003
1911	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1912	1,021	991	1,370	1,206	1,052	1,357	1,057	978	1,170
1913	1,046	1,070	1,097	1,054	1,024	1,252	1,123	995	1,188
1914	1,099	1,032	1,207	1,137	1,021	1,507	1,081	1,253	1,149
1915	1,284	1,017	2,162	1,530	1,133	2,435	1,275	1,528	1,604
1916	1,695	1,423	1,208	1,485	1,322	2,515	1,491	1,760	1,504
1917	2,129	2,008	1,157	1,423	1,343	2,403	1,884	2,171	1,662
1918	2,416	2,360	1,444	1,454	1,422	2,385	2,686	3,225	1,934
1919	2,121	2,363	1,987	1,651	1,514	2,342	2,852	2,896	2,055
1920	2,302	2,625	2,460	2,213	1,920	3,279	3,226	2,834	2,483
1921	2,173	1,361	1,767	2,000	1,977	2,158	2,733	2,303	1,903
1922	1,941	1,681	1,628	1,648	1,869	1,787	2,005	1,965	1,758
1923	1,826	2,148	1,778	1,840	1,746	2,579	2,024	1,933	1,944
1924	1,835	2,418	1,647	1,655	1,721	2,223	1,814	1,806	1,885
1925	1,851	1,966	1,796	1,636	1,723	2,212	1,711	1,790	1,844
1926	1,938	1,582	2,001	1,784	1,730	1,931	1,664	1,816	1,832
1927	1,962	1,650	1,826	1,823	1,724	2,111	1,623	1,866	1,817
1928	1,912	1,781	1,726	1,751	1,707	2,015	1,744	1,923	1,792
1929	1,912	1,555	1,793	1,854	1,689	2,245	1,755	1,943	1,803
1930	1,867	1,127	1,484	1,627	1,666	2,024	1,875	1,982	1,596
1931	1,826	1,040	1,121	1,398	1,794	1,512	2,025	2,166	1,429
1932	1,736	998	1,230	1,304	1,766	1,351	2,043	2,127	1,411
1933	1,713	1,118	1,175	1,194	1,714	1,485	2,061	2,105	1,409
1934	1,660	1,261	1,288	1,274	1,735	1,540	2,015	2,017	1,471
1935	1,602	1,217	1,344	1,325	1,729	1,508	1,964	1,996	1,469
1936	1,566	1,330	1,480	1,351	1,731	1,684	1,969	1,997	1,543
1937	1,772	1,406	1,604	1,451	1,750	1,678	2,430	2,006	1,656
1938	1,746	1,051	1,789	1,549	1,747	1,871	2,238	2,059	1,662
1939	1,758	1,101	1,820	1,557	1,752	1,710	2,220	2,075	1,665
1940	1,854	1,361	1,567	1,567	1,784	1,882	2,890	2,298	1,713
1941	1,960	1,402	1,721	1,554	1,883	1,776	3,138	2,527	1,796
1942	2,146	1,507	1,900	1,665	1,938	2,312	3,409	2,437	1,977
1943	2,272	1,945	1,964	1,716	1,939	2,366	3,764	2,442	2,117
1944	2,278	1,967	2,052	1,721	1,949	2,470	3,768	2,442	2,159
1945	2,270	1,960	2,259	1,726	1,967	2,560	3,770	2,527	2,228
1946	2,262	2,062	1,951	1,722	1,977	2,589	3,772	2,614	2,162
1947	2,390	2,690	2,019	1,763	2,174	2,748	3,800	2,843	2,360
1948	2,829	3,619	2,383	2,104	2,435	2,976	4,631	3,180	2,824
1949	3,502	3,966	2,876	2,309	2,558	3,356	4,611	3,221	3,191
1950	3,902	5,464	3,155	2,459	2,829	4,616	(a) 5,567	3,263	3,816
1951	5,080	7,943	4,512	2,930	2,850	6,438	(a) 7,074	3,294	5,098
1952	6,481	7,365	5,038	4,024	3,455	6,289	(a) 9,338	3,723	5,647
1953	6,615	6,950	4,958	4,533	3,767	6,303	(a) 8,519	4,691	(b) 5,631

(a) The list of items and weighting of the original Building Materials group of this index are outmoded in respect of recent years. The movement shown here for this group between 1949 and 1953 has been calculated in accordance with the movement occurring in the Building Materials group of the Basic Materials and Foodstuffs Index. (b) The "All Groups" index numbers for the years 1954, 1955 and 1956 were 5,384, 5,548 and 5,916 respectively.

NOTE.—The figures given in this table are comparable in the vertical columns, but are not directly comparable horizontally.

§ 4. International Comparisons: Wholesale Price Index Numbers.

The following table gives index numbers of wholesale prices during the period 1950 to June, 1957 for Australia and other countries. Except where otherwise noted, the average prices in each country for the year 1953 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: 1953 = 100.)

Period.	AUSTRALIA.	BELGIUM.	BRAZIL.	CANADA.	DENMARK.	FRANCE.	GERMANY (Western).	INDIA (c)	INDONESIA (Jakarta) (d)	IRELAND.
1950	69	93	66	96	86	78	85	101	72	82
1951	85	113	79	109	109	100	100	110	99	95
1952	98	107	87	102	107	105	103	97	94	100
1953	100	100	100	100	100	100	100	-100	100	(c)100
1954	99	99	130	98	100	98	98	94	109	98
1955	102	101	147	99	103	98	101	87	145	101
1956	106	104	176	102	107	102	103	97	135	101
1956—										
March Qtr.	104	103	158	101	106	101	102	91	136	101
June	107	103	170	102	108	102	102	96	132	102
Sept.	108	103	183	103	108	102	102	100	134	101
Dec.	107	105	192	103	108	103	104	102	138	101
1957—										
March Qtr.	108	106	200	103	109	104	105	101	142	104
June	107	107	196	103	106	105	105	103	146	107

Period.	ITALY.	JAPAN (Tokyo).	NETHERLANDS.	NEW ZEALAND.	NORWAY.	PHILIPPINES (Manila).	SWEDEN.	UNION OF SOUTH AFRICA.	UNITED KINGDOM (d)	UNITED STATES OF AMERICA.
1950	93	70	87	78	76	98	76	76	95	94
1951	106	97	107	91	94	110	100	86	133	104
1952	100	100	104	101	-101	101	106	99	111	101
1953	100	100	100	100	100	100	100	100	100	100
1954	101	99	101	99	102	95	100	101	98	100
1955	101	98	102	100	104	92	104	104	105	101
1956	102	102	104	104	109	96	109	105	107	104
1956—										
March Qtr.	103	99	104	101	106	92	109	105	106	102
June	103	101	105	103	109	96	110	105	106	104
Sept.	101	102	104	106	110	97	109	105	107	104
Dec.	102	105	106	106	111	97	109	106	109	105
1957—										
March Qtr.	101	106	107	103	113	97	110	107	110	106
June	99	106	107	106	113	97	109	106	109	106

(a) Base: April-December, 1953 = 100. (b) Imported goods. (c) Home-produced goods only.
(d) Non-food industries only.

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 (change in scope, etc.) and therefore the index numbers are not comparable with each other even though they are shown on the same base period.