# CHAPTER II.—WHOLESALE PRICES AND PRICE INDEXES.

# § 1. Melbourne Wholesale Price Index.

1. General.—The data on which this chapter is based relate almost entirely to wholesale prices in Melbourne. An index of Sydney wholesale prices is compiled by the Government Statistician of New South Wales, and published in the Year Book and the Monthly Summary of Business Statistics of that State.

The index of Melbourne wholesale prices was first computed in 1912, and has been continued on the same lines since that year. The items included in the (old) Melbourne wholesale price index comprise chiefly basic materials which in the form of raw material, food, or as a source of power, enter into production for home consumption. The purpose of the index, therefore, is to measure the changes in the prices of these particular materials rather than the changes in prices generally. As Australia does not, to any extent, manufacture from imported raw materials commodities for export, the local consumption appears to give the most appropriate weighting. Any lack of uniformity in the variations of the index-numbers for these wholesale prices and for retail prices would indicate broadly changes in the relation of manufacturing and distributing charges to the cost of basic materials.

The scope of this wholesale price index can best be understood by an examination of the list of commodities included which is given on page 4I. This list is, to a large extent, comparable with that used in the compilation of the *Economist* and *Statist* index-numbers for Great Britain, but differs largely from that used for the wholesale price index-numbers of the United States (Bureau of Labour) or Canada (Department of Labour).

'2. The Grouping of the Commodities.—The commodities are divided into eight groups, as set out on page 41. The descriptions of the groups are given in the following tables with the proportional cost of each group for the year 1939. These proportions may be used with fair accuracy as "weights" to combine any group index-numbers at the present time, but would give unsatisfactory results if used for a time when prices were relatively much different.

Groups of Commodities.

Group.	Description.	Percentage of Aggregate Cost (1939).
ī.	"Metais and Coal"	15
II.	"Wool, Cotton", also jute, leather, &c.	11
III.	"Agricultural Produce"	31
IV.	"Dairy Produce"	9
<b>v.</b> .	"Groceries"	16
vi.	"Meat"	10
VII.	"Building materials" (mostly timber)	7
VIII.	" Chemicals " (excluding fertilizers)	r

It will be noticed that the group "Chemicals" is practically negligible.

The index relates chiefly to basic materials, but a certain proportion of Australian manufacturing costs enters into all groups. The amount is small in Meat (VI.), Agricultural Produce (III.), and Wool, Cotton (II.), and greater in others, but the difference is not sufficient to justify any inference as to different changes of the price-level for manufactured goods and farm products. The number and weight of manufactured commodities included are too small to warrant deductions of this nature from any possible grouping.

Many of the commodities included are affected by the tariff. Wool, Cotton (II.), Agricultural Produce (III.), and Meat (VI.), are little affected, and Dairy Produce (IV.) not greatly, but in the other groups the tariff is a dominating influence.

Melbourne Wholesale Price Index : Commodities included, Units of Measurement, and "Mass-Units",

Commodity.	Quality.	Unit.	Mass Unit,	Commodi	ity.	Quality.	Unit.	Mass Unit.			
	GROUP I. Metals and Co			GROUP II (Wool, Cotton, also Jute, Leather, &c.)							
Iron— Pig	Mixed Nos.	Ton	61	Branbags Cornsacks Woolpacks			Doz.	110 250			
Rod and Bar Angle Plate Hoop Galvanized	Stafford "" "" 26 gauge	17 14 11	31 31 3	Leather— Chrome Hide Rough Ta	Box		ft.	1,200			
Foncing Wire Finned Plates Zinc, sheet	No. 8 I.C. Coke	Ton Box Ton	6 60	—Split Sole Leath Factory Sides	her—		"	600			
Lead, sheet	::	"	1	Cotton Wool	••	Raw	**	24,000			
Copper, sheet		lb.	2,000	Twine	••	Resper and Binder	••	150			
Coal	Newcastle,	Ton	600	Tallow	• -	Mutton Prime	Ton	τ			

# Melbourne Wholesale Price Index: Commodities included, Units of Measurement, and "Mass-Units"—continued.

Commodity.	Quality.	Unit.	Mass Unit.	Commodity.	Quality.	Volt.	Mass Unit.					
· (Ag	Group III			GROUP V.—continued. (Groceries).								
Wheat Flour Bran Pollard Oate . Oatmeal Barley Maize Hay Chaff , Straw Peas Potatoes Malt Onlone	Milling Colonial English Cape Best Mngr. Prime Victorian	Bus. Ton	500 48 14 1,200 1,200 1,000 1,000 1,000 135 135 25 40 140 3	Starch Blue Matches Candles Tobacco Kerosene	Coleman's White Keen's Australian Safety Rangoon	lb. Gross Ib. Gall.	100 30 90 1,600 1,300 1,700					
	GROUP IV			Beef Mutton Lamb Yeal Pork	Average quality	too lb.	390 33,000 5,600 2,000 3,700					
Ham Bacon Cheese	::	lb.	800 3,200 1,500	(B	GROUP VII							
Butter Lard	Best Fresh Bulk Ordinary Bacchus Marsh	Dos. lb. Doz. lb.	9,500 200 1,800 600 40 160	Timber—	Flooring—6 x 1k 6 x 1k	rooft, lin.	30 30 30 30					
	GROUP V.			Cement . White Lead	Shelving Portland	Cask Ton	10 30					
Currants	(Groceries).	1ь.	1,400	Slates	Welsh 20 x 10	1,000	•					
Balsins Herrings Salmon Sardines Ten	Sultanas 1-lb. fresh 1-lb. tall Alaska Halves	Doz. 1-lb. tins " Doz. halves lb.	1,400 50 50 100 3,000		GBOUP VIII							
Coffee Cocoa Sugar Macaroni Tapicoa Rice Sait Mustard Mustard	Plantation McKenzie's No. 14 Australian fine Rock Coleman's	Ton lb. cwt. Ton " Doz."1-lb. tlas	200 100 22 200 7 2 7	Cream of Tartar Bi-Carbonate of Soda Saltpetre Sulphur Caustic Soda Alum Potassium Cyanide		Ib. Ton ;;; cwt. Ton Ib.	400 1 I-20 2 3 3 70					

3. Index Numbers.—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, 1861 to 1940.

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

Year	·.	I. Metals and Coal.	Wooi, Cotton, Leather, &c.	III. Agricul- tural Pro- duce, &c.	IV. Dairy Produce.	V. Grocer- ics.	VI. Meat.	VII. Bullding Materials.	VIII. Chemi- cais.	All Groupe
1861 1871 1881 1891 1901	::	1,438 1,096 1,178 895 1,061	1,381 1,257 1,115 847 774	1,583 1,236 1,012 1,024 928	1,008 864 935 995 1,029	1,963 1,586 1,421 1,032 1,048	 888 1.345	1,070 1,044 1,091 780 841	2,030 1,409 1,587 1,194 917	1,538 1,229 1,121 945 974
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	375	921	1,045
1904		821	885	754	876	916	1,427	845	875	890
1905		772	850	894	980	942	1,209	801	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	892	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	J,176
1913		1,046	1,070	1,097	1,054	1,024	1,252	1,128	995	1,088
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	7,403	1,884	2,171	1,669
1918		2,416	2,360	1,444	1,454	1,422	2,385	2,086	3,225	1,934
1919		2,125	2,363	1,985	1,651	1,516	2,348	2,851	2,898	2,055
1920		2,298	2,674	2,439	2,209	1,918	3,279	3,226	2,825	2,480
1921	:::::	2,173	1,362	1,767	2,000	1,976	2,158	2,733	2,303	1,963
1922		1,942	1,681	1,628	1,648	1,869	1,787	2,005	1,965	1,756
1923		1,826	2,148	1,778	1,837	1,746	2,579	2,025	1,933	1,944
1924		1,835	2,418	1,647	1,655	1,721	2,223	1,815	1,806	1,885
1925		1,852	1,967	1,797	1,636	1,723	2,212	1,711	1,790	1,844
1926 1927 1928 1929	:::::	, 1,938 1,962 1,912 1,912 1,866	1,582 1,650 1,781 1,556 1,127	2,001 1,826 1,726 1,792 1,484	1,784 1,823 1,751 1,853 1,627	1,731 1,724 1,707 1,690 1,666	1,931 2,111 2,015 2,746 2,025	1,665 1,624 1,744 1,754 1,875	1,816 1,866 1,923 1,942 1,982	1,832 1,817 1,792 1,803 1,596
1931 1932 1933 1934 1935	::::	1,826 1,736 1,713 1,660 1,602	1,039 1,000 1,118 1,261 1,217	1,121 1,230 1,175 1,288	1,399 1,303 1,195 1,274 1,325	1,794 1,767 1,714 1,735 1,739	1,508 1,348 1,487 1,540 1,508	2,025 2,043 2,061 2,015 1,964	2,16 6 2,127 2,106 2,018 1,996	1,426 1,411 1,405 1,471 1,469
1936 1937 1938 1939	::	1,566 1,772 1,746 1,758 1,854	1,331 1,406 1,051 1,101 1,386	1,480 2,601 1,789 1,820 1,568	1,351 1,451 1,549 1,557 1,567	1,731 1,750 1,747 1,752 1,784	1,684 1,678 1,871 1,710 1,832	1,969 2,430 2,238 2,220 2,890	1,997 2,006 2,059 2,075 2,298	1,543 1,656 1,662 1,665

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

4. Variations since 1914.—The variations in the index-numbers of the separate commodity groups for the years 1915 to 1940, are shown in the following table, taking July, 1914, as base (= 1,000) for each group:—

# Melbourne Wholesale Price Index-Numbers. (Base of each Group: July, 1914 = 1,000.)

	Period	ı.	I. Metals and Coal.	II. Wool, Cotton, Leather, &c.	JII. Agri- cultural Produce, &c.	IV. Dairy Pro- duce.	V. Gro- ceries.	VI. Meat,	VII. Building Materials	VIII. Chemi- cais.	All Groups
July.	1914		1.000	1,000	1,000	1.000	1.000	1,000	1,000	1,000	1,000
	1915		1,166	934	2,024	1,272	1,098	1,502	1.154	1,490	1.406
12	1916		1,539	1,307	1,130	1,235	1,266	1,551	1,361	1,716	1,318
10	1917		1,919	1,841	1,084	1,181	1,302	1,480	1,722	2,141	1,456
79	1918		2,197	2,324	1.351	1,210	1,378	1,469	2,448	3,085	1,695
14	1919		1,930	2,169	1.858	1,373	1,469	1,448	2,602	2,827	1,801
	1920	••	2,001	2,430	2,328	1,840	1,860	2,022	2,944	2,764	2,176
.,	1921		1,974	1,250	1,653	1,663	t,916	1,331	2,495	2,246	1,668
**	1922		1,763	1,543	1,523	1.370	1,811	1,102	1,830	1,017	1,541
H	1923	• •	1,658	1.972	1,664	1,527	1,693	1,590	1,848	1,885	1,704
10	1924		1,667	2.220	1,541	1.376	1,668	1,371	1,656	1,761	1,653
**	1925	• •	1,682	1,806	1,681	1,360	1,670	1,364	1,562	1,746	1,617
**	1926		1,760	1,453	1,873	1,483	1,677	1,191	1.519	1,771	1,606
**	1927	• •	1,782	1,515	1,709	1,516	1,671	1,302	1,482	1,820	1,593
11	1059	**	1,737	1,635	t,661	1,456	1,654	1,242	1,590	1,876	1,571
••	1929		1,737	1,428	1,677	1,540	1,638	1,385	1,601	1,895	1,581
	1930		1,695	1,035	1,489	1.353	1,614	1,249	1,712	1,933	1.390
	1931		1,659	954	1,049	1,163	1,738	930	1,849	2,112	1,252
	1932		1.577	918	1,152	1,083	1.712	168	1,865	2,074	1,237
•	1933	••	1,556	1,026	1,100	994	1,661	917	1,662	2,054	1,235
**	1934		1,508	1,158	1,205	1,059	1,682	950	1,839	1,968	1,290
**	1935	• •	1,456	1,116	1,258	1,100	1,677	931	1,792	1,946	1,288
	1036	••	1,422	1,222	1,485	1,123	1,678	1,038	1,708	1,948	1.353
10	1937	• •	1,600	1,201	1,503	1,206	1,696	1,035	2,210	1,957	1,451
11	1938	;	1,386	965	1,674	1,267	1,693	1,154	2,043	2,008	1,457
"	1939	••	1,597	1,011	1,704	1,295	1,698	1,054	2,026	2,024	1,460
	1940	• •	1,684	1.273	1,467	1,303	1,728	1,161	3,638	2,242	1,505

### § 2.—Basic Materials and Foodstuffs.

I. General.—As mentioned above, the Melbourne Wholesale Price Index was first computed in 1912. Neither the component items nor the weighting have been varied. Consequently the index is a measure of changes in wholesale price levels based on usages which have altered substantially since the period on which the weighting was determined. As such it is useful as an indication of long-term trends over the past 80 years which it covers, on the assumption that the relative importance of component items remained constant. But it no longer serves as a measure of price variations from month to month or from year to year of commodities weighted in accordance with present day consumption. Reference to the description of the index in § I above will indicate that animal fodders preponderate in the "Agricultural Produce" group, while "Building Materials" include little besides imported timber. In other groups, some principal items have increased in consumption while others have decreased. It was resolved, therefore, at the Conference of Statisticians at Brisbane in 1930 that the time had come to revise and extend the items included in order to bring the index into line with changed conditions. An investigation to that end was commenced, and in the course of the past few years, many new price-series have been collected on a monthly basis back to January,

1928. Some of these have been incorporated in a new index of the prices of basic materials and foodstuffs, preliminary index-numbers of which are currently published in the Monthly Review of Business Statistics. Others are being incorporated in a number of "special-purpose" indexes, which it is hoped to publish in the future. Their construction has been delayed in order to make use, for weighting purposes, of the larger amount of information which is now becoming available as the result of the collection of more extensive statistics of factory production. The price quotations have in the main been obtained directly from manufacturers and dealers, and, with a few important exceptions, from Melbourne sources. Apart from home-produced building materials, coal and one or two minor commodities, however, the price movements may be taken as representative of fluctuations in wholesale prices of basic materials in most Australian markets. The weighting system adopted is based on average annual consumption during the years 1928-29 to 1934-35 inclusive. In the meantime, however, the original index has been continued on existing lines, as set out in § I of this chapter.

2. Index Numbers.—Index-numbers for each group of commodities and for all groups combined for this new index of wholesale prices of basic materials and foodstuffs are given in the following table:—

Wholesale Price Index-Numbers—Basic Materials and Foodstuffs, 1928 to December, 1940.

(Base of each Group: Year 1928 = 1,000.)

Period.		Metals and Goal.	Oils, Fats and Waxes.	Tex- tiles.	Chemi- cals.	Rubber and Hides	Build- ing Ma- terials.	Food- stuffs and To- bacco,	Goods princ; pally Im- ported,	Goods princi- paily Home Pro- duced.	All Groups.
1928	,	1,000	1,000	1,000	1,000	1,000	000,1	1,000	1,000	-1,000	1,000
1929	٠.	1,000	1,019	831	977	769	980	1,070	1,011	1,033	1,028
1930 ,		954	1,082	612	955	548	998	951 812	1,053	917	951
1931	٠.	890	1.116	575	979	185	1,012		1,119	791	951 873
1932 .		827	1,069	539	981	530	984	792	1,082	762	842
1933	٠,	818	882	621	949 885	504	995	778	1,009	746	812
1934	•	785	816	664	885	109	979	308	989	752	811
1935		740	877	620	817	593	971	849	1.025	761	827
1936		725	909	761	815	724	984	906	1,045	807	867
1937		791	952	872	817	880	1,102	920	1,126	843	914
1938	.,	801	949	607	831	664	1,041	900	1,094	852	011
1939		814	972	650	835	779	1,047	948	1,112	852	910
1940	٠.	836	1,229	776	969	934	1,269	984	1,331	894	1,001
1938		-5-	, , _ ,,	***		,,,		_ ` `			
January		803	955	665	822	708	1,078	895	1,108	813	885
February		799	954	644	831	646	1,071	904	1.102	816	886
March		800	952	625	831	637	1,065	921	1,098	827	893
A pril		800	950	612	831	620	1,065	941	1,097	840	903
May		798	949	613	831	600	1,053	960	1,090	853	911
June		796	947	587	831	594 :	1,055	995	1.003	874	928
July		800	948	606	831	651	1,013	1.021	1.084	894	941
August		8or	947	599	831	670	1,017	1,046	1,105	906	955
September		802	946	577	831	670	1,010	1,005	1,094	88o	932
October		805	946	587	832	735	1,022	977	1,085	868	921
November	• •	805	946	595	832	729	1.022	930	1,082	836	896
December	• •	802	945	574	\$32	702	1,022	919	1,085	825	889
1939— January		018		***	833		1,022	950	ا ا	843	
February			944	577 587	834	713 705	1,022		1,103 1,077		906
March	٠,	794 813	947		835	705	1,022	971	L077	,803	915
April	٠.	813	947	577	835	697	1,015	1,032	1.075	910 890	950
May	• •	013	948	574	835				1.075	890	935
June		813 813	949 950	578 597	835	702 710	1,016	929	1,078	837 837	896 896
July	• •	814		613	835	699	1,007	918	1,075	831	891
August		815	949 947	610	835	727	1,007	907	1,075	824	886
September	٠.	815	951	728	835	797	1,007	921	1,121	836	906
October	•	815	996	786	835	886	1,092	948	1,158	855	930
November	•	828	1,042	791	835	977	5,127	938	1,200	853	930
December	• •	828	1.090	779		1,011	1.133	934	1,236	847	943

# Wholesale Price Index-Numbers---Basic Materials and Foodstuffs, 1928 to December, 1940---continued.

I Race of	each Groun		Vear 1	028 =	1.000.1
(Date of	cach aroug	, .	T cm. T.	920 —	1,000,

Period.	Metals and Conl	Oils, Fats and Waxes.	Tex- tiles.	Chemi- cats.	Rubber and Hates	Bulld- ing Ma- terials.	Food- stulis and To- bacco.	Goods princi- pally Im- ported.	Goods princi- pally Home Pro- duced,	All Groups
January February March April May June July August September October November	 828 829 848 834 834 834 834 840 840	1,099 1,100 1,143 1,155 1,278 1,283 1,284 1,279 1,276 1,286 1,286 1,286	781 755 771 780 775 773 773 775 784 788	922 923 924 924 924 1,006 1,014 1,012 1,019	939 953 945 923 941 923 913 911 912 919 965	1,132 1,194 1,194 1,194 1,279 1,279 1,351 1,351 1,351 1,351	941 949 986 986 1,002 985 1,001 1,008 1,008 1,009 976	1,232 1,247 1,263 1,272 1,326 1,349 1,358 1,370 1,365 1,395 1,395	857 864 878 895 906 898 911 916 911 893 899	949 958 972 988 1,009 1,010 1,023 1,026 1,030 1,014 1,023

# § 3. International Comparisons: Wholesale Price Index-Numbers.

The following table gives index-numbers of wholesale prices in the years 1933 to 1940 for Australia and other countries, the prices in each country for the year 1929 being taken as base (= 100). The figures, which have been taken chiefly from the Monthly Bulletin of Statistics published by the League of Nations, show merely the fluctuations in prices in each country, and are obviously not comparable horizontally.

### Wholesale Price Index-Numbers: Principal Countries.

(Base: Year 1929 = 100.)

	F	datinu Voderi	ł.	Belaton.	BRITISH INDIA (CALCUTTA).	CHINA (SHANGHAI).	Denmark.	Dutch East Indies,	E6TPT (CAIRO).	FINTAND.	FRANCE.	GERMANT.
Period	Board of Trade.	". Statist,"	"Economist,"	Officia)	Official.	National Tarlif Commission.	Official,	Officia)	Official,	Official.	Official.	Official.
1933 1934 1935 1936 1937 1938	75 77 78 83 95 89	70 72 74 78 90 80 81	68 71 74 79 89 78 80	59 56 63 69 80 74 76	62 63 65 65 72 68 76	99 93 92 104 124 146 232	93 90 93 95 110 104	49 46 45 46 61 57	61 75 82 73 76 79 76	91 92 93 96 113 105	64 60 54 66 93 104	68 72 74 76 77 77 77
1939 VI VII	86 86 86 92 97 104 107 110 113	79 78 79 87 93 98 105 109 109	76 75 76 83 90 94 99 91	70 70 70 83 86 90 93 97 99	72 71 71 81 84 93 97 92 89	191 196 253 304 318 320 355 375 432 417	102 103 103 118 122 128 132 143 150	56 56 50 66 70 70	72 72 76 78 78 78 84 83 82	107	109 108 107	78 78 78 78 78 78 78 79 79

# Wholesale Price Index-Numbers: Principal Countries-continued.

(Base: Year 1929 = 100.)

Period.	IPALT.	JAPAN.	NETHER- LANDS.	NORWAY.	Poland.	Sweden.	SWITZER- LAND.	United States.	AUSTRALIA.	CANADA.	NEW Zealand.	UNION OF SOUTH AFRICA.
	National Index.	Bank of Japan.	Official.	Officjal.	Official.	Official.	Official.	Bureau of Labour Statistics.	Official.	Official.	Official	Official.
1933 1934 1935 1936 1937 1938 1939 VI VIII XI XI XI XII 1940 I III III	67 65 7 80 93 100 103	82 81 84 90 108 114 126 123 124 131 133 143 144 144	63 63 62 64 76 77 70 70 71 76 81 85 88 88 88 88	82 83 85 90 105 103 101 101 103 122 128 128 134	618 58 556 562 58 59 59	(d) 100 114 111 115 109 111 118 124 128 136 138 140	65 64 64 68 79 76 75 75 75 83 85 89 92 94	69 79 84 85 91 82 81 79 83 83 83 83 83 82 82	79 79 80 84 89 89 87 86 88 91 92 93 95	70 75 75 75 88 79 77 66 83 84 85 87 76 87 77	91 92 95 96 103 105 108 110 110 110 112 113 113	80 88 82 85 87 90 89 91 93 94 95

(a) Base: Year 1935 = 100.

(b) Basic Materials and Foodstuffs Index.

# CHAPTER III.—WAGES.

# § 1. Operations Under Arbitration and Wages Board Acts and Industrial Legislation.

- 1. General.—Particulars regarding operations under the Commonwealth and State Acts for the regulation of wages and hours and conditions of labour were first compiled for the year 1913, and reviews to the end of each annual period appear in previous issues of the Labour Report and in the Quarterly Summaries of Australian Statistics.
- 2. Acts Regulating Industrial Matters.—The Acts in force regulating rates of wage, hours of labour, and working conditions generally in both Commonwealth and State jurisdictions are as follows:-

### COMMONWEALTH.

Commonwealth Conciliation and Arbitration Act 1904-1934. National Security (Industrial Peace) Regulations-Statutory Rules 1940, No. 290.

Arbitration (Public Service) Act 1920-1934.

Industrial Board Ordinance, 1936-1940 (Australian Capital Territory).

.. Industrial Arbitration Act 1940. New South Wales Victoria Factories and Shops Act 1928-1939.

Queensland ... .. Industrial Conciliation and Arbitration Act

1932-1938.

South Australia The Industrial Code 1920-1937.

Western Australia .. Industrial Arbitration Act 1912-1937. Tasmania ...

Wages Board Act 1920-1938.