

## 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.

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 44. 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 44. The descriptions of the groups are given in the following tables with the proportional cost of each group for the year 1948. These proportions cannot be used to combine "group" index-numbers owing to the possible wide differences in the proportions compared with those for the *base period*. In this connexion, see paragraph following table on page 16.

Groups of Commodities.

Group.	Description.	Percentage of Aggregate Cost (1948).
I.	"Metals and Coal" .. .. .	14
II.	"Wool, Cotton", also jute, leather, &c. .. .. .	22
III.	"Agricultural Produce" .. .. .	24
IV.	"Dairy Produce" .. .. .	7
V.	"Groceries" .. .. .	13
VI.	"Meat" .. .. .	10
VII.	"Building Materials" (mostly timber) .. .. .	9
VIII.	"Chemicals" (excluding fertilizers) .. .. .	1
		100

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.



3. Index-Numbers.—(i) 1861 to 1948 (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, 1861 to 1948.

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

Year.	I. Metals and Coal.	II. Wool, Cotton, Leather, &c.	III. Agricul- tural Pro- duce, &c.	IV. Dairy Produce.	V. Grocer- ies.	VI. Meat.	VII. Building Materials.	VIII. Chem- icals.	All Group-
1861 ..	1,438	1,381	1,583	1,008	1,963	..	1,070	2,050	1,588
1871 ..	1,096	1,257	1,236	864	1,586	..	1,044	1,409	1,229
1881 ..	1,178	1,115	1,012	933	1,421	..	1,091	1,587	1,121
1891 ..	895	847	1,024	895	1,030	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	976	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	942	1,008	996	808	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	1,128	995	1,188
1914 ..	1,099	1,032	1,207	1,137	1,021	1,507	1,081	1,255	1,149
1915 ..	1,184	1,017	1,162	1,539	1,133	2,435	1,275	1,528	1,604
1916 ..	1,605	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	2,493	1,884	2,172	1,882
1918 ..	2,416	2,360	1,444	1,454	1,422	2,385	2,686	2,175	1,934
1919 ..	2,121	2,363	1,987	1,651	1,514	2,522	2,852	2,866	2,058
1920 ..	2,302	2,625	2,460	2,213	1,920	3,279	3,216	3,034	2,483
1921 ..	2,175	1,361	1,767	2,000	1,977	2,158	2,733	3,593	1,803
1922 ..	1,941	1,681	1,628	1,648	1,869	1,787	2,095	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 ..	1,928	1,582	2,001	1,784	1,730	1,931	1,664	1,816	1,832
1927 ..	1,962	1,650	1,826	1,821	1,724	2,111	1,623	1,866	1,817
1928 ..	1,972	1,781	1,726	1,757	1,707	2,025	1,744	1,923	1,782
1929 ..	1,913	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	2,022	1,875	1,982	1,586
1931 ..	1,826	1,040	1,721	1,598	1,794	1,512	2,025	2,166	1,429
1932 ..	1,736	998	1,230	1,304	1,766	1,551	2,043	2,127	1,411
1933 ..	1,715	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	1,907	1,549
1937 ..	1,772	1,406	1,604	1,451	1,750	1,678	2,430	2,006	1,858
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	3,613	2,383	2,104	2,435	2,976	4,631	3,180	2,824

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

(ii) 1915 to 1948 (July, 1914, base)—The variations in the index-numbers of the separate commodity groups for the years 1915 to 1948, 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.	I. Metals and Coal.	II. Wool, Cotton, Leather, &c.	III. Agricultural Produce, &c.	IV. Dairy Produce.	V. Gro- ceries.	VI. Meat.	VII. Building Materials	VIII. Chemicals.	All Groups
July, 1914 ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Year 1915 ..	1,165	932	2,011	1,273	1,098	1,503	1,154	1,489	1,402
" 1916 ..	1,539	1,306	1,131	1,234	1,268	1,530	1,361	1,729	1,318
" 1917 ..	1,919	1,842	1,084	1,181	1,303	1,480	1,772	2,141	1,453
" 1918 ..	2,197	2,374	1,351	1,210	1,377	1,469	2,448	3,151	1,695
" 1919 ..	1,926	2,175	1,860	1,372	1,467	1,444	2,604	2,824	1,860
" 1920 ..	2,091	2,413	2,288	1,840	1,860	2,021	2,944	2,764	2,177
" 1921 ..	1,974	1,750	1,654	1,663	1,916	1,331	2,493	2,446	1,668
" 1922 ..	1,793	1,544	1,524	1,370	1,811	1,102	1,831	1,917	1,341
" 1923 ..	1,638	1,972	1,664	1,528	1,692	1,591	1,848	1,885	1,704
" 1924 ..	1,667	2,220	1,541	1,376	1,668	1,371	1,656	1,761	1,652
" 1925 ..	1,682	1,806	1,682	1,360	1,670	1,364	1,561	1,746	1,616
" 1926 ..	1,760	1,433	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
" 1928 ..	1,737	1,633	1,616	1,456	1,654	1,242	1,592	1,876	1,371
" 1929 ..	1,737	1,428	1,678	1,541	1,697	1,384	1,602	1,895	1,581
" 1930 ..	1,695	1,035	1,389	1,335	1,614	1,248	1,712	1,933	1,399
" 1931 ..	1,639	955	1,049	1,162	1,739	952	1,848	2,115	1,435
" 1932 ..	1,577	916	1,151	1,084	1,712	833	1,866	2,075	1,337
" 1933 ..	1,556	1,026	1,099	993	1,661	916	1,882	2,053	1,233
" 1934 ..	1,308	1,158	1,205	1,059	1,683	950	1,839	1,967	1,290
" 1935 ..	1,435	1,117	1,258	1,102	1,675	950	1,792	1,946	1,288
" 1936 ..	1,422	1,221	1,385	1,123	1,678	1,038	1,797	1,948	1,353
" 1937 ..	1,609	1,291	1,502	1,206	1,696	1,035	2,219	1,957	1,452
" 1938 ..	1,585	965	1,674	1,287	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	1,250	1,467	1,303	1,728	1,161	2,038	2,241	1,501
" 1941 ..	1,780	1,287	1,611	1,292	1,825	1,124	2,864	2,465	1,574
" 1942 ..	1,949	1,384	1,778	1,384	1,878	1,426	3,111	2,377	1,733
" 1943 ..	2,004	1,786	1,838	1,427	1,879	1,459	3,436	2,382	1,856
" 1944 ..	2,069	1,806	1,920	1,430	1,888	1,523	3,439	2,382	1,893
" 1945 ..	2,061	1,799	2,114	1,435	1,906	1,579	3,441	2,465	1,953
" 1946 ..	2,055	1,893	1,826	1,432	1,915	1,597	3,444	2,549	1,896
" 1947 ..	2,171	2,470	1,890	1,466	2,106	1,695	3,460	2,773	2,060
" 1948 ..	2,570	3,322	2,231	1,749	2,359	1,836	4,227	3,102	2,476

**§ 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 87 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 § 1 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, 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 merchants, 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.

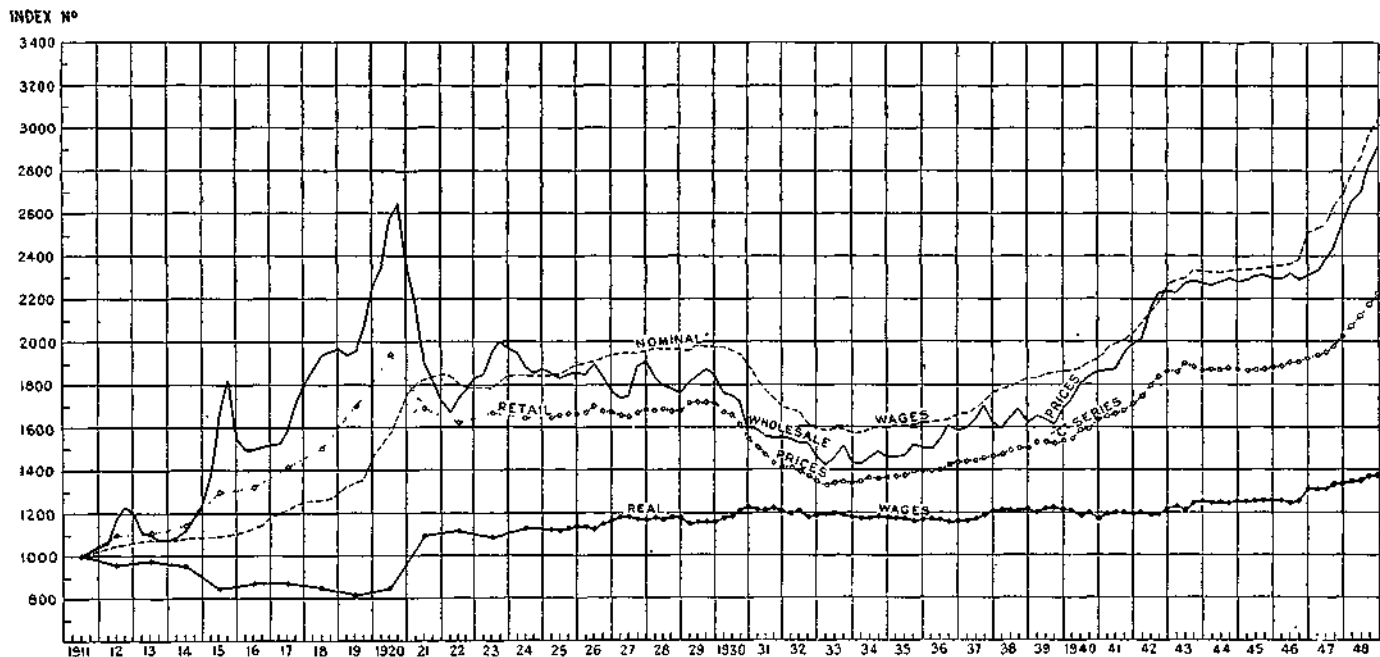
2. **Index-Numbers.**—Index-numbers for each group of commodities and for all groups combined for this new index of wholesale prices of basic materials and foodstuffs are given in the following table:—

**Wholesale Price Index-Numbers—Basic Materials and Foodstuffs, 1928 to December, 1948.**

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

Period.	Metals and Coal	Oils, Fats and Waxes.	Textiles	Chemicals.	Rubber and Hides	Building Materials.	Foodstuffs and Tobacco	Goods principally Imported.	Goods principally Home Produced.	All Groups.
1928 .. ..	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1929 .. ..	1,000	1,019	830	977	769	981	1,070	1,011	1,033	1,027
1930 .. ..	954	1,082	912	955	548	998	951	1,053	918	952
1931 .. ..	880	1,092	574	979	582	1,012	812	1,107	791	870
1932 .. ..	827	1,069	539	981	530	984	792	1,082	763	843
1933 .. ..	818	882	620	949	564	995	778	1,009	746	811
1934 .. ..	785	817	664	855	601	980	808	989	752	812
1935 .. ..	740	877	620	817	593	971	849	1,025	761	827
1936 .. ..	725	909	761	815	724	985	906	1,046	807	867
1937 .. ..	791	951	871	817	889	1,102	929	1,127	843	914
1938 .. ..	801	949	607	831	664	1,041	957	1,094	852	911
1939 .. ..	814	972	650	835	764	1,047	954	1,111	856	918
1940 .. ..	836	1,230	776	909	934	1,269	998	1,338	901	1,008
1941 .. ..	880	1,342	820	1,061	982	1,368	1,044	1,562	908	1,069
1942 .. ..	968	1,509	934	1,163	1,037	1,540	1,187	1,804	1,007	1,402
1943 .. ..	1,031	1,596	1,098	1,178	1,057	1,809	1,208	1,988	1,026	1,262
1944 .. ..	1,030	1,599	1,082	1,178	1,057	1,832	1,223	1,997	1,035	1,271
1945 .. ..	1,027	1,525	1,083	1,169	1,057	1,839	1,267	1,976	1,056	1,282
1946 .. ..	1,023	1,417	1,187	1,164	1,043	1,867	1,281	1,936	1,072	1,284
1947 .. ..	1,072	1,421	1,650	1,161	938	1,936	1,366	2,015	1,138	1,353
1948 .. ..	1,280	1,591	2,340	1,275	1,000	2,040	1,557	2,170	1,348	1,549
1948—										
January ..	1,191	1,524	2,174	1,259	988	2,008	1,486	2,113	1,272	1,478
February ..	1,191	1,524	2,213	1,259	994	2,017	1,508	2,119	1,289	1,492
March .. ..	1,192	1,559	2,148	1,259	957	2,012	1,508	2,137	1,284	1,493
April .. ..	1,192	1,564	2,157	1,262	956	2,016	1,509	2,139	1,285	1,494
May .. ..	1,237	1,564	2,297	1,262	997	2,029	1,508	2,147	1,301	1,508
June .. ..	1,237	1,564	2,414	1,263	1,017	2,039	1,509	2,148	1,309	1,515
July .. ..	1,300	1,625	2,386	1,263	1,029	2,043	1,531	2,192	1,334	1,544
August .. .	1,300	1,625	2,390	1,266	1,018	2,048	1,611	2,219	1,381	1,586
September ..	1,336	1,634	2,421	1,267	1,018	2,060	1,602	2,211	1,390	1,591
October .. .	1,336	1,635	2,506	1,312	1,018	2,060	1,601	2,208	1,387	1,588
November ..	1,477	1,635	2,502	1,311	1,020	2,062	1,645	2,201	1,462	1,643
December ..	1,477	1,635	2,621	1,314	992	2,082	1,670	2,203	1,485	1,661

## Wholesale and Retail Prices, Nominal and Effective or Real Wage Index-Numbers.—Australia, 1911 to 1948.



EXPLANATION.—The index-numbers in the graph above are for the Six Capital Cities as a whole, with the exception of those for Wholesale Prices up to the fourth quarter of 1927, which are for Melbourne. They are all calculated to the common base 1911 = 1,000, the scale for which appears on the left of the graph. The wholesale prices graph shows the trend of prices according to the "old" Melbourne Index up to the fourth quarter of 1927, but thereafter, this index having been "spliced" with the Basic Materials and Foodstuffs Index, the curve line moves in accordance with the variations of the latter. The price quotations for this index are, in the main, obtained from Melbourne sources, but their movements may be taken as representative of fluctuations in most Australian markets. Points in this graph are plotted quarterly from 1912 onward. The "C" Series Retail Price index-numbers (food, groceries, rent of 4 and 5-roomed houses, clothing and miscellaneous household expenditure) are shown quarterly from 1925. For the period 1911-1914 the "C" Series index-numbers are taken back from the true base (November, 1914 = 1,000) by means of the "A" Series Index (Food and Rent of All Houses). Nominal Wages are shown quarterly from 1914, and Real Wages quarterly from 1925. Real wages are computed on the basis of the "C" Series Retail Price Index.

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

The following table gives index-numbers of wholesale prices for the period 1937 to December, 1948 for Australia and other countries, the average prices in each country for the year 1937 being taken as base (= 100). The figures, which have been taken chiefly from the *Monthly Bulletin of Statistics* published by the Statistical Office of the United Nations, are official except where indicated otherwise and show merely the fluctuations in prices in each country. They are obviously not comparable horizontally.

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

(Base : 1937 = 100.)

Period.	AUSTRALIA.	UNITED KINGDOM.		CANADA.	INDIA.	IRELAND. (c)	NEW ZEALAND.	SOUTH AFRICA.	ARGENTINE (BUENOS AIRES).	CHILE.	CZECHOSLOVAKIA.
		Board of Trade.	Economist.								
1937 .. ..	100	100	100	100	100	..	100	100	100	100	100
1938 .. ..	100	93	87	93	90	..	101	103	94	95	99
1939 .. ..	100	95	90	89	95	105	105	101	96	93	113
1940 .. ..	110	126	117	98	113	132	117	112	110	102	137
1941 .. ..	117	140	128	106	122	148	128	123	129	119	147
1942 .. ..	132	147	135	113	149	170	139	138	107	162	150
1943 .. ..	138	150	138	118	215	189	148	150	180	179	152
1944 .. ..	139	153	142	121	227	198	152	155	188	184	153
1945 .. ..	140	155	145	122	231	198	155	158	193	196	170
1946 .. ..	140	161	154	128	252	198	155	161	208	227	297
1947 .. ..	148	176	178	153	297 <sup>b</sup>	219	161	160	222	292	312
1948 .. ..	169	202	197	181	367	232	180	181	..	348	326
1948—											
March Qtr. ..	163	198	193	174	337	233	177	175	230	325	319
June .. ..	164	203	197	178	366	233	181	178	241	342	321
Sept. .. ..	172	203	197	185	385	231	183	185	250	356	331
Dec. .. ..	179	203	199	188	382	230	180	185	..	368	332

Period.	DENMARK.	EGYPT.	FINLAND.	FRANCE. (c)	MEXICO (MEXICO CITY). (d)	NETHERLANDS.	NORWAY.	PERU (LIMA).	SWEDEN.	SWITZERLAND.	UNITED STATES.
1937 .. ..	100	100	100	..	100	100	100	100	100	100	100
1938 .. ..	94	99	93	100	106	94	98	101	97	96	91
1939 .. ..	99	100	98	105	84	97	100	105	101	100	89
1940 .. ..	145	124	132	139	86	120	131	119	128	129	91
1941 .. ..	171	156	161	171	92	138	160	140	151	165	101
1942 .. ..	179	200	199	201	102	145	170	175	166	188	114
1943 .. ..	180	254	226	234	123	148	172	201	172	196	119
1944 .. ..	182	300	250	265	150	151	174	208	172	200	121
1945 .. ..	179	318	339	375	167	167	174	218	170	198	123
1946 .. ..	176	308	562	648	192	232	166	234	163	193	140
1947 .. ..	195	292	676	989	203	250	172	315	175	201	176
1948 .. ..	213	316	893	1,712	218	259	178	395	188	209	191
1948—											
March Qtr. ..	204	314	856	1,512	208	257	177	373	183	211	188
June .. ..	212	323	893	1,633	215	257	178	388	188	210	191
Sept. .. ..	218	318	917	1,757	223	257	178	400	190	208	195
Dec. .. ..	219	309	907	1,945	227	266	179	420	190	208	190

(a) Base October, 1938 = 100.

= 100.

(c) Base : 1938 = 100.

(b) New Series Base : September, 1938, to August, 1939

(d) Converted from original Base : 1939 = 100.