Index-Numbers of Retail Prices in Various Countries-miminued.

$$
(\text { Buse: } 1937 \Rightarrow 100 .)
$$

(i) PRICES OF FOODSTUFPS-continued.


[^0]
## CHAPTER II.-WHOLESALE PRICES AND PRICE INDEXES.

## § 1. Melbourne Wholesale Price Index

I. General.-Tbe data on which this chapter is based relate almost entirely to wholesale prices in Melbourne.

The index of Melbourne wholessle 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 weightiag. 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 wholessle price index can best be underatood by an eramination of the list of commodities included which is given on page 45. 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 below. The descriptions of the groups are given in the following table with the proportional cost of each group for the year 1949. These proportions cannot be used to combine "group" index-numbers owing to the possible wide differences in the proportiono compared with those for the base period. In this connexion, see paragraph following table on page 16 .

Groaps of Commodities.

| Group. | Descrtption. |  | Percentagn of Aggregate Cost (1949). |
| :---: | :---: | :---: | :---: |
| I | "Motals and Coal" |  |  |
| II. | "Weasis and Coal ${ }^{\text {W }}$ " ${ }^{\text {a }}$ |  | 15 |
| III. | "Agricultural Produce" . ${ }^{\text {a }}$. |  | 21 25 |
| IV. | "Dairy Produce" |  | 7 |
| V. | "Groceries " . |  | 12 |
| VI. | "Mest" ${ }^{\text {" }}$ " ${ }^{\text {a }}$ |  | 11 |
| VII. | "Building Materials" (mostly timber) |  | 8 |
| VIII. | "Chomicals" (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 anfficient to justify any inference as to different changes of the price level for manufactured gooda 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 tarifi is a dominating influence.

Molbourne Wholesale Price Inder : Commodities incladed, Unita of Measurement, and "Mass Units".


GROUP III.
(Agricaltaral Produce).

| Whess Flout | -* |  | bun. ton | 500 48 |
| :---: | :---: | :---: | :---: | :---: |
| Bran | . |  | " | 14 |
| Pollard | . |  |  | 14 |
| Oats | . | milling.. | buas. | 1,200 |
| Oatmeal | . | Colobial | ton | $1 \frac{1}{1}$ |
| Batley | . | English | bus. | 150 |
| Mälzo. . | $\because$ | Cape . | * | 100 |
| Hay .. | ** |  | tob | 1,000 |
| Chaf ${ }^{\text {- }}$ | $\cdots$ | Prlme | ton | 135 |
| Gtraw | $\cdots$ | Victorian | " | 135 |
| Peas .. | -. |  | bats. | 25 |
| Potatons | . |  | ton | 55 |
| Malt .. | . | Vietorian | but. | 140 |
| Ontons | $\because$ | + | ton | , |

GBoer IV,
(Dairy Prodace),

3. Index-Numbers.-(i) I86I to 1949 (IgII base)-Index-numbers for each group of commodities, as well as for all groups combined, are shown in the following table :-

Melbontne Wholesale Price Inder-Numbers, 1861 to 1949.
(Base of eath Group : Year $1911=1,000$.)


NOTE,-The figures given in this table are comparable in the vertical columns, but are not directly comparable horizoutally.
(ii) 1915 to 1949 (July, 1914, base) -..The variations in the index-numbers of the separate commodity groups for the years IgI5 to 1949 are shown in the following table, taking July, 1914, as base ( $=1, \infty)$ for cach group :-

Melborrne Wholesale Price Inder-Numbers.
(Base of each Group : July, $1914=1,000$.)

|  | Period. |  | I. <br> Metaja and Coal. | II. <br> Wool, Cotton. Leather, \&c. | III. Agricultural Produce, \& 0. | IV. <br> Jaify Produac. | $\mathbf{V} .$ <br> Grocerles. | v. <br> Beat. | VII. <br> Bullding <br> Materiale | 7111. <br> Chemitala. | $\underset{\text { Groups. }}{\text { Alt }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| July, | 1914 | $\cdots$ | 1,000 | t,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,090 | 1,000 | 1,008 |
| Yens | 1915 | . | 1.165 | 932 | 2,011 | 1,273 | 1,099 | 1,503 | 1,154 | 1,489 | 1,403 |
| - | 1916 | *. | 1,539 | t. 306 | 1,181 | 1,234 | 1,268 | 1,550 | 1,361 | 1,729 | 1,318 |
| - | 191\% | . | 1,919 | 1,842 | t,084 | 5, Fsf | 1,503 | 1.480 | 1,732 | 2,141 | 1,453 |
| - | 1917 | . | 2,197 | 2,324 | 1.351 | 1,210 | 1.377 | 1,469 | 2,44 ${ }^{6}$ | 3,151 | 1,695 |
| $\cdots$ | 1919 |  | 1,926 | *.173 | 1,860 | 1,572 | 1,467 | 1.444 | 2,604 | 3,82.4 | 1,802 |
| $\cdots$ | 1920 | . | 2,001 | 2,413 | 2,288 | 1,840 | 1,860 | 2,021 | 2,944 | 2,764 | 2,177 |
| $\cdots$ | 1921 | ** | 1,974 | 1,250 | $\underline{5.654}$ | 1,663 | 1,916 | 1,331 | 2,495 | 3,246 | 1.668 |
| $\cdots$ | 1922 | . | 1,763 | 1,544 | 1,524 | 1,374 | 3.813 | 1,102 | $1,83 \mathrm{I}$ | 1.917 | 1,541 |
| $\stackrel{+}{*}$ | 1923 | . | 1,658 | 1.972 | x,664 | 1,548 | 1,692 | 1,591 |  | 1.885 | 1.704 |
| * | 1974 |  | 8.667 | 2.220 | 1.541 | 1,376 | 1,665 | 1,371 | 1,636 | 1,76t | 1.652 |
| " | 1925 | - | 1.681 | 1,806 | x,682 | 1,360 | 1.670 | 1,364 | 1,36t | 1,746 | 1,636 |
| * | 5926 | .- | 1.760 | 1,459 | $\underline{1.573}$ | 1,483 | 1,677 | 1,191 | 1, 519 | 1,775 | 1,606 |
| * | 1927 | .. | 1,782 | t,515 | 1,799 | 5,516 | 1,671 | 1.307 | 1,482 | 1,830 | 3,593 |
| * | 1936 | . | 1,737 | 1,6135 | 1.616 | 1,436 | 1,6\$4 | 1,24才 | 1,592 | 1,876 | 1,971 |
| 4 | 1929 | * | 1,737 | 1,428 | 1,678 | 2.541 | - 1,637 | $\mathrm{t}_{4} \mathrm{~B}_{4}$ | t. 602 | 1,895 | 1.381 |
| $\because$ | 1930 | . | 1,605 | 1,035 | 1,369 | 1,353 | 2,554 | 1,248 | 1,712 | 4.939 | 1,390 |
| * | 1931 | . | 1,659 | 955 | 5,049 | 1,162 | 1,739 | 992 | 1,848 | 4,113 | 1,215 |
| " | $193 \pm$ | $\cdots$ | 2.577 | 916 | 1,151 | 1,084 | 1,712 | 633 | 1,966 | 1,075 | 2.237 |
| " | 1931 | . | 1,556 | :,026 | 1,099 | 993 | 1,66t | 416 | 1,08] | 2,053 | 1,235 |
| ${ }^{\prime \prime}$ | 1934 |  | 1.50\% | I.15* | 1,205 | 7,059 | f,682 | 950 | 5,039 | 1,967 | t,290 |
| - | 1935 | . | 1.455 | 1,117 | 1,458 | 1,102 | 1,675 | 930 | +,792 | 1,946 | 7,288 |
| ", | 2930 | . | 1,422 | 1,221 | 1.385 | 1,123 | 1.675 | 1,038 | 1,797 | 1.94 \% | 1,333 |
| * | 1937 |  | 1.609 | 1.29 t | t,502 | 5,206 | 1.696 | t.035 | 2,219 | 1,957 | 1,45: |
| $\checkmark$ | 1938 | . | 1,5 ${ }^{5}$ | 965 | 1,674 | 1.287 | 1,693 | 1,154 | 2,043 | 1,006 | 1.437 |
| " | 1939 | ** | 1,507 | 1,011 | 1 704 | 1,205 | $\pm .698$ | 1,054 | 2.026 | 2.024 | 1,460 |
| " | 1910 | . | 1,684 | 1,290 | 1.467 | 1,303 | 1,728 | 1,161 | $2.63{ }^{8}$ | 2,2,1 | 2,501 |
| " | 1941 | :. | 5,790 | 1,287 | 1,611 | [,292 | 1,825 | 1,124 | 2,864 | 2,465 | 1,574 |
| .. | 1942 | + | 1.949 | 1,384 | 1,778 | t.384 | 1, $877^{8}$ | 1,426 | 3,1tt | 2.377 | 1,733 |
| . | 1913 |  | 2.064 | 1,786 | 1838 | 1,427 | 1,879 | 1,459 | 3.436 | $23^{382}$ | 1.856 |
|  | 1944 | * | 2,069 | 1,806 | 5,920 | 2,430 | 1,889 | 1,523 | 3,439 | 2.382 | 1,893 |
| , | 1943 | . | 2.061 | 1.709 | 2,174 | 1,435 | 1,906 | - 1.579 | 3,411 | $\pm .465$ | t,953 |
| '* | 1946 | . | 2,055 | 1,893 | 1,926 | 1,4,32 | 1.915 | 1.597 | 3.444 | 2.549 | [,896 |
| $\cdots$ | 10.7 7 | $\cdots$ | 2,175 | 2,170 | 1,890 | 1.466 | 2,106 | 4,695 | 3.469 | 2,7\%3 | 2,060 |
| " | 1948 | $\cdots$ | 2.570 | 3,322 | 2,231 | :,749 | 2.359 | 1,836 | 4.227 | 3.102 | 2.476 |
| $\therefore$, | 194.8 | . | 314. | $33_{12}$ | 2.0.0. | 1.015 | 2.179 | 2.069 | 4,200 | 3.111 | -,797 |

## § 2.-Basic Materials and Foodstuffs.

1. General.-As mentioned above, the Melbourne Wholesale Prioe Index was first computed in 1gr2. Neither the component items nor the weighting have been varied. Consequently the index is a masure of changes in wholesale price levels based on usages which have altered bubatantially since the period on which the weighting was determined. As such it is useful as an indication of long-term trends over the past 88 yeara which it covers, on the assumption that the relative importance of component items remained constant. But, it no ionger serves as a measure of price variations from month to month or from year to vear of comnodities weighted in accordance with present day consumption. Reference to the deseription of the index in § I above will indicate that animal fodders preponderate in the "Agricultural Produce" group, while "Building Materials" include litfle 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 itema included in order to bring the index into line with changed conditions. An investigation to that ond was conmenced, and over a period of 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. It is intended to incorporate these in a number of "special-purpose" indexes, which it is boped 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 2. few important exceptions, from Melbourne sources. Apart from home-produced building materials, coal and one or two minor commodities, bowevar, 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:-

## Wholeasle Price Index-Numbers-Basic Materisls and Foodstuff 1028 to December, 1949.

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

| Period. |  |  | Basic Materials. |  |  |  |  |  |  | Foodstutis and Tobacco | Basic Materials and Foodstulis. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { Mfetals } \\ & \text { and } \\ & \text { Coal. } \end{aligned}$ | $\left\lvert\, \begin{gathered} \text { Dils, } \\ \text { Fats } \\ \text { and } \\ \text { Waxes. } \end{gathered}\right.$ | Textites. | Chemr | $\begin{aligned} & \text { Rub, } \\ & \text { bard } \\ & \text { nind } \\ & \text { Hides. } \end{aligned}$ | $\begin{gathered} \text { Buld. } \\ \text { ing } \\ \text { mat. } \\ \text { erials. } \end{gathered}$ | Totat. |  | Goods prinet pally 120. ported. | $\left\lvert\, \begin{gathered} \text { Guode } \\ \text { prlnci- } \\ \text { pally } \\ \text { Hoper } \\ \text { Pro- } \\ \text { ducod. } \end{gathered}\right.$ | All |
| 1928 |  |  | 1,000 | 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 | 760 | 981 | 977 | 1,070 | 1,011 | 1,033 | 1,627 |
| 1930 |  |  | 954 | 1,082 | 612 | 955 | 548 | 998 | 933 | 951 | 2,053 | 918 | 952 |
| 1931 |  |  | 889 | 1,092 | 574 | 979 | 582 | 1,012 | 986 | 812 | 1,107 | 791 | 870 |
| 1932 |  |  | 827 888 | 1,069 | 539 620 | 981 | 530 564 | 984 <br> 995 | ${ }_{832}^{885}$ | 792 | $\xrightarrow[\substack{1,082 \\ 1,009}]{\text {, }}$ | 763 746 | ${ }_{841}^{84}$ |
| 1933 | + |  | 8.8 |  | 620 | 949 | 564 | 995 | ${ }^{83}$ | 778 | 1,009 | 746 | $8 \pm 1$ |
| 1934 |  |  | 785 | ${ }_{8}^{887}$ | 664 | ${ }_{8}^{885}$ |  | 980 | 799 | 808 | 989 | 752 | 812 |
| 1935 |  |  | 740 | 877 | 620 | 817 | 593 | 971 | 785 | 849 | 1,025 | 761 | ${ }^{827}$ |
| 1936 |  |  | 725 | 909 | ${ }^{761}$ | 815 | 724 | 985 | 823 | 906 | 1,046 | 807 | 867 |
| 1937 |  |  | ${ }_{\text {Bor }}$ | 952 949 | 871 607 | 817 831 83 | 889 664 | T,102 | ${ }_{87}^{97}$ | 929 957 | 1,127 | 843 852 85 | 914 |
| 1938 |  |  |  | 949 | 607 | 83 |  | T, 0,4 |  | 957 | 1,094 |  | 911 |
| 1939 |  |  | 814 | 972 | 650 | 835 | 764 | 1,047 | 897 | 954 | 1,117 | 856 | 988 |
| 1940 |  | $\because$ | 836 | 1,230 | 776 | 969 | 934 | 1,269 | 1,040 | 998 | 1,338 | 901 | 1,008 |
| 1941 |  |  | 880 | 1,342 | 820 | 1,061 | 982 | 1,368 | 1,118 | 1,044 | 1,562 | 908 | 1,069 |
| 1942 |  |  | 968 | 1,509 | 934 | 1,163 | 1,037 | I,540 | 1,243 | 1,187 | 1,804 | 1,007 | T,202 |
| 1943 |  |  | 1,031. | 1,596 | 1,098 | 1,178 | 1,057 | 1,809 | 1,347 | t,208 | 1.988 | 1,026 | 1,26z |
| J944 |  |  | 1,030 | 1,599 | 1,082 | 1,178 | 1,057 | 1,832 | 1,350 | 1,223 | 1,997 | 1,035 | 1,271 |
| 1945 | $\cdots$ |  | 1,027 | 1,525 | 1,083 | 1,169 | 1,057 | T,839 | 1,329 | 1,262 | 1,976 | 1,056 | 1,282 |
| 1946 |  |  | 1,023 | 1,417 | 1,187 | 1,164 | 1,043 | 1,867 | 1,309 | 1,281 | 1,936 | 1,072 | 1,284 |
| 1947 |  |  | 1,072 | 1,42t | 1,650 | 1,162 | 938 | 2,936 | 1,366 | t,366 | 2,915 | t,138 | 1,353 |
| $19+8$ | . |  | 1,289 | 1,591 | 2,340 | 1.275 | 1,000 | 2,040 | 1,572 | 1,557 | 2,170 | 1,348 | 1,549 |
| 1949 | . |  | 1,597 | 1,664 | 2,542 | 1,383 | 957 | 2,134 | 5,745 | 1,749 | 2,252 | 1,561 | 1,730 |
| 1949- |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | nary |  | 1,524 | 1,641 | 2,672 | 1,337 | 959 | 2,083 | 1,709 | 1,708 | 2,210 | 1,504 | 1,673 |
|  |  |  | 1,547 | 1,641 | 2,672 | 1,337 | 945 | 2,100 | 1,718 | 1,705 | 2,192 | 1,534 | r,695 |
|  | . |  | 1,548 | 1,644 | 2,296 | 1,337 | 956 | 2,100 | 1,694 | 1,712 | 2,197 | 1,522 | 1,687 |
|  | . |  | 1,548 | 1,646 | 2,295 | 1,337 | 945 | 2,116 | 1,696 | 1,716 | 2,194 | 1,527 | 1,600 |
|  |  |  | 1,548 | 1,646 1,645 | 2,298 |  | 889 | 2,120 2,120 | ${ }_{\text {1, }}^{1,698}$ | 1,712 | 3182 | 1,529 | x,689 |
|  |  |  | t, 645 <br> 1,645 | 1,645 | 2,379 2,431 | [1,338 |  | 2,120 | ${ }_{\substack{1,737 \\ 1,748}}$ | 1,769 1,763 | 2,255 2,264 | [1,569 | r,737 r,739 |
|  | cmber |  | 2,646 | 1,627 | 2,389 | T, 338 | 93 r | 2,281 | I, 745 | 1,759 | 2,264 2,236 | 1,573 | 1,739 1,735 |
|  | ber |  | 1,648 | 1,627 | 2,632 | 1,485 | 944 | 2,182 | 1+777 | 1,789 | 2,286 | 1,592 | 1,762 |
|  | ember |  | 1,648 | 1,780 | 2,775. | 1,48I | 1,015 | 2,183 | 1,832 | 1,818 | 2,379 | ${ }_{1}{ }^{1}$,622 | 1,807 |
|  | mber |  | 1,688 | 1,780 | 3,044 | 1,595 | 1,071 | 2,183 | 1,880 | 1,871 | 2.420 | 1,675 | 1,857 |

Wholesale and Retail Prices; Nominal, and Effective or Real Wages-Index-Numbers, Australia, 1811 to 1949.


Explonatios --The index-numbers in the graph atowe are for the Six Gapital cities as a whole, with the exreption of those for wholesale Prices up to the fourth quarter




 Houses). Nominal Wages are shown guarterly from igit, and Real Wiages guarierly frour rg2s. 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, 1949 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 borizontally.

Wholesale Price Index-Nombers: Principal Countries.
(Base: $1937=100$.)



[^1]
[^0]:    (a) Diaso: Augist, $1939=100$.
    (b) Average of less than twelve months.
    (c) Constimers (Rntail) Price Index lituked in former seriez. (d) Iuls-December. New sernes. Base: 17 th June, $1947=100$.

[^1]:    (a) Base: $1938=100$.

    1938 , to A19\%6st, $3039=100$.
    (b) Tase: October, $1938=200$. $1930=100$ (f) Octor. (d) New series Finused to old
    (c) New Series. 3ame: September, $1939=100 . \quad(f)$ October.
    (g) New interin series linked to old.

