

CHAPTER I.—RETAIL PRICES AND PRICE INDEXES.

SPECIAL NOTE.—On 12th August, 1960, a new retail price index, entitled the Consumer Price Index, was published for the first time. The contents of the statistical bulletin introducing the new index are reproduced as Appendix Section III on page 148 of this Labour Report. The Interim Retail Price Index, first published in 1954, has been discontinued as from March Quarter, 1960, and replaced by the Consumer Price Index. The "C" Series Retail Price Index will continue to be compiled for those industrial tribunals and authorities who desire to use it. At this transitional stage, this chapter of the Labour Report contains abbreviated material adjusted in minor ways to current circumstances. The subject will be treated more comprehensively in the ensuing Labour Report for 1960.

§ 1. Collection of Information as to Retail Prices.

Retail prices of food and groceries and average rentals of houses for years extending back to the year 1901 were collected by the Commonwealth Statistician, and in some cases have been recorded by the Statisticians of various States for earlier years.

Retail prices of a more extensive range of commodities (including clothing) and certain services in common demand have been ascertained at frequent and regular intervals since 1923 for each of the six capital cities and for 27 of the more important towns of Australia. Comparable information is available for the month of November in each year from 1914 to 1922 for each of the six capital cities.

The range of items for which retail price data is obtained was considerably extended in 1948 and in later years.

The retail prices of food and groceries in approximately 200 towns throughout Australia were collected as at November of each year from 1913 to 1942, when collection was discontinued.

The manner in which the main body of commodity prices used in the retail price indexes are ascertained and certain methods adopted to ensure their accuracy and comparability from period to period are briefly as follows:—

- (i) Representative and reputable retailers are selected for each city and town covered by the indexes and are required to furnish information as to prices (monthly in respect of food and groceries and quarterly in respect of other items). Prices for each item are obtained where practicable from ten or more retailers in each of the capital cities, and from five or more retailers in each of the provincial towns. Whenever necessary, supplementary information is obtained from other retailers.
- (ii) Information is collected under authority of the Census and Statistics Act 1905-1949, which requires that information be supplied accurately and promptly and ensures that particulars supplied by individual retailers will not be divulged to any other person or Government authority. Penalties are provided against failure to supply information, against supplying false information and against failure to answer truthfully any question asked by an authorized officer in respect of the contents of any return.
- (iii) The actual collection of information is carried out by qualified Field Officers of the Commonwealth Bureau of Census and Statistics working under the supervision of the Statisticians of the respective States. These Field Officers have very wide powers of investigation, including entry of premises and inspection of goods, records, etc.

- (iv) The Field Officers not only receive and check returns but visit the retail shops concerned, whenever necessary, to obtain requisite information. In respect of some articles, where variation of quality may be considerable, Field Officers are equipped with samples of the goods used for price comparisons. In such cases the Field Officers visit every retail informant at each quarterly collection and personally inspect the relevant goods and prices thereof.
- (v) Before each quarterly collection Supervising Field Officers review the standards of the whole of the items for which prices are collected, after making extensive inquiries among manufacturers, wholesalers and retailers. These Supervising Field Officers periodically accompany Field Officers at their price collections and check their work. This not only ensures accuracy and assiduity but also that all Field Officers work on uniform lines and that, as far as care and effort can make it possible, prices are recorded for representative goods of constant quality.
- (vi) The lists of items and the standards thereof are revised from time to time to keep them in harmony with changing conditions. Where such changes become necessary, suitable adjustments are made in computing the retail price indexes to ensure that they reflect changes in price with due precision and that they are not vitiated by the influence of other changes. Because of rapidly changing conditions since 1948, prices have been ascertained for an extended list of items. The purpose of this is to ensure that the indexes are kept representative and reliable within their definitions.
- (vii) Returns of rents for unfurnished houses of four and five rooms are made at the middle of each quarter by a representative number (ranging up to 30) of house agents in each city and town covered by the indexes. In addition, in the capital cities, particulars have been obtained as to costs of building new houses, rates and other charges for local government services including water supply and sewerage, prices of materials for repairs and maintenance, and weekly payments for houses let by State Housing authorities. These have been used together with rents of privately owned houses to provide a broadly based housing component in the Consumer Price Index.

§ 2. Nature of Retail Price Indexes.

1. **General.**—The basic principle of a retail price index is relatively simple. It is to select commodities representative of the field to be covered and to combine their prices at regular intervals in accordance with their relative importance in that field. The aim is to measure the degree of change in prices for the selected field taken as a whole.

In practice the application of this principle over a term of years presents great difficulty by reason of the numerous changes which occur in the type, grade and relative quantities of many of the items commonly used.

In compiling the retail price indexes the price of each item is multiplied by its "weight". The sum of these products for all items at any given date represents an "aggregate expenditure". The "aggregate expenditures" for successive periods are converted into an index by representing the aggregate of a selected or "base" period by an appropriate number (e.g., 100 or 1,000), and calculating index numbers to that base by the proportion which the aggregate of each period bears to the aggregate of the base period.

2. **Essential Features.**—Apart from clear thinking, common sense and sound arithmetic, the prime essentials in compiling a retail price index are—

- (a) that prices be accurately ascertained at regular intervals for goods of constant grade and quality;
- (b) that the list of items be as representative as possible of the field to be covered;
- (c) that the weights be in approximate proportion to quantities actually used in the selected field.

3. **The List of Items.**—The list of items must be a selected list because it is impossible in practice to ascertain at regular intervals prices of every item of goods and services entering into household expenditure. Some items which it would be desirable to include must be excluded because comparative prices cannot be accurately ascertained for them at different times. It is deemed better to limit the list to items for which price variations can be ascertained with reasonable accuracy than to distend it by including items for which price comparisons are necessarily inaccurate. Similarly, many items of small aggregate or individual importance are excluded. The list therefore is not (as is sometimes erroneously supposed) a basic wage regimen, nor is it a full list of component items in a standard of living. It does not imply that any particular goods or any selected grades or quantities of these goods should enter into determination of a basic or living wage. The lists used are simply selected items combined in certain proportions for the purpose of measuring price variations. The items are representative of the fields covered, and the proportions approximate to those in average consumption so far as can be ascertained.

4. **Effects of Changing Conditions on Indexes.**—Technological development and changes in fashion render it necessary to substitute new grades, qualities or types of articles for those formerly used as indicators of changes in price. Such substitutions help to keep the indexes representative of current conditions and are not injurious to an index provided the transitional difficulties can be solved as they arise. No change in principle is involved. The indexes continue to measure, as nearly as may be, price variations, and price variations only. Those differences in prices which are solely due to substitution of a new item for one which has ceased to be available or in common use are neutralized by taking the price of the old item as typical of price variation in its class up to the time of substitution, and the prices of the new items as typical of such changes in price thereafter.

The problem of maintaining an index adequately representative of current usage has intensified since 1950 because of major changes in the pattern of household expenditure and in modes of living. In this period home-owning has largely replaced house-renting, the use of the motor car has greatly increased and partly replaced use of public transport, and various items of electrical household equipment and television have come into widespread use. The impact of this sequence of changes in usage upon the pattern of household expenditure was heightened by disparate movements in prices. Together, they rendered nugatory the attempt to meet the situation by devising a single Interim Retail Price Index because its list of items and item weights became outmoded. In consequence the Consumer Price Index was devised as a chain of linked indexes with the June quarters of 1952 and 1956 and the March quarter of 1960 chosen as the linking dates. (See paragraphs 5 and 13 of Appendix Section III. on page 148). The fixed-weight aggregative formula continued to be used in all these indexes. The description of the Consumer Price Index given in Section III. of the Appendix (pages 148 to 156) will be amplified in a later bulletin.

§ 3. Purpose of Retail Price Indexes.

1. **General.**—Retail price indexes are designed to measure the extent of changes in price levels only. While they may be used as indicating proportionate variations in cost of a *constant* standard of living, they do not measure the absolute cost of any standard of living, nor the absolute cost of changes in the standard of living. Strictly speaking they measure, as nearly as may be, the proportionate change in the aggregate cost of specified quantities and qualities of the selected list of items included in the index. In a broad sense, they measure proportionate change in retail price levels within the field they represent. The list of items in the "C" Series Retail Price Index is representative of a high proportion of the expenditure of wage earner households as current in pre-war years. That of the Consumer Price Index is similarly representative for post-war years as from 1950.

2. **Price Indexes for Individual Cities.**—Retail price indexes measure average variations in prices for specified cities individually. They measure proportionate changes from one time to another and not differences in price levels as between cities nor comparative costs of living in different cities. The problems of measuring comparative retail price levels and comparative living costs between cities at any point of time are matters for separate consideration apart from retail price indexes.

3. **Price Indexes and Purchasing Power.**—Retail price indexes are sometimes used as a measure of change in the "purchasing power of money". Strictly speaking, such a measure relates only to purchasing power over the list of items of the index combined in their specified proportions. The validity of its use in any broader sense or in dealing with a particular problem is a question for judgment by prospective users, on the facts of the case, and in the light of the definition of the index. It is impossible to compile a single general measure that will show, for all purposes and in all classes of transactions, the change in the value of money from one time to another.

4. **Use of Price Indexes by Industrial Tribunals.**—Retail price indexes are sometimes used by industrial tribunals and other authorities for the adjustment of wages. These authorities themselves decide, however, what use (if any) they make of available indexes or whether they desire the Statistician to compile a special index or adapt an existing index to suit their purposes. It is not the practice for the Statistician to express any view as to whether such tribunals should use retail price indexes in their deliberations. In the normal course of his duties the Statistician compiles and publishes various price indexes, states what they measure, explains how they are constructed, and gives evidence or public information when required. His function in this regard is frequently misunderstood. It is sometimes erroneously supposed that certain basic wages are determined by ascertaining the aggregate cost of the list of items included by the Statistician in a retail price index, or by calculating separate components of the wage from the aggregate cost of the items in separate groups of such an index. The actual position is briefly as follows:—

- (i) Tribunals determine a basic wage in the light of relevant evidence, presented by the parties, usually covering a wide range of economic conditions. This may or may not include evidence on changes in price levels.
- (ii) In some cases it may be provided by statute or by judgment of the tribunal that the total wage thus determined shall be automatically adjusted for price change as shown by overall quarterly movement in a specified retail price index.

The practices followed in the past and at present in Commonwealth jurisdiction and in the various States are described in Chapter III.

§ 4. Previous Retail Price Indexes.

1. General.—Five series of retail price indexes have been compiled at various times for Australia by the Commonwealth Statistician prior to 1960. Each of these was continued until changed conditions required the compilation of indexes more directly relevant to current conditions. The respective indexes were:—

- (i) *The "A" Series Index* (covering food, groceries and house rents) was first compiled in 1912 with the year 1911 as base=1,000. It was discontinued in June, 1938. From 1913 to May, 1933 this index was used for wage adjustment purposes by the Commonwealth Court of Conciliation and Arbitration. Some other tribunals continued to use it until 1938 in certain localities.
- (ii) *The "B" Series Index* (covering food, groceries and rent of 4 and 5 roomed houses) was first compiled in 1925 and continued until the December Quarter, 1953. It was the food and rent constituent of the "C" Series Index and was designed to replace the "A" Series Index for general statistical purposes. The "B" Series Index was not used by industrial tribunals in connexion with the adjustment of wages. Its publication was discontinued as from the December Quarter, 1953.
- (iii) *The "C" Series Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking and some other miscellaneous items) was first compiled in 1921. It was used by the Commonwealth Court of Conciliation and Arbitration for purposes of quarterly wage adjustments from May, 1934 to August, 1953. Some State tribunals use or consider it in their proceedings. It will continue to be available for industrial tribunals who desire it. The table in Appendix Section IV. on page 157 shows the "C" Series Index for the period from 1914 to December Quarter, 1959 (linked to the "A" Series for the years 1911-14).
- (iv) *The "D" Series Index*, derived by combining the "A" and "C" Series Indexes, was used by the Commonwealth Court of Conciliation and Arbitration from May, 1933 to May, 1934 and then discontinued.
- (v) *The Interim Index* (covering food and groceries, rent of 4 and 5 roomed houses, clothing, household drapery, household utensils, fuel, lighting, fares, smoking, certain services and some other miscellaneous items) was first compiled in 1954 with the year 1952-53 as base = 100. It replaced the "C" Series Index for general statistical purposes, and was constructed as a transitional index. Its compilation was discontinued following its replacement by the Consumer Price Index (see Appendix Section III. on page 148).

2. *The "Court" Index*.—In 1937 the Commonwealth Court of Conciliation and Arbitration introduced a "Court" Index for the purpose of its system of making automatic quarterly adjustments to the basic wage within its jurisdiction. A "Court" Index (Second Series) was created by the Court in 1946 and a "Court" Index (Third Series) in November, 1950, to provide for automatic adjustment of the increased amounts of adjustable basic wage then determined by the Court at those dates. By decision of the Court the "Court" Index ceased to be issued by the Industrial Registrar as at the December Quarter, 1953. These "Court" Indexes were an arithmetical conversion of the "C" Series Retail Price Index.

§ 5. International Comparisons: Retail Price Index Numbers.

The following tables give index numbers of consumer (retail) prices for various countries. Except where otherwise noted, the average prices for the year 1953 are taken as base (= 100). The figures, which have been taken from the *Monthly Bulletin of Statistics* of 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 CONSUMER (RETAIL) PRICES IN VARIOUS COUNTRIES.

(Source: *Monthly Bulletin of Statistics* of the Statistical Office of the United Nations.)

(Base: 1953 = 100.)

ALL GROUPS INDEXES.

Period.	ARGENTINA (Buenos Aires).	AUSTRALIA.(a)	BELGIUM.(b)	BRAZIL (Sao Paulo).	CANADA.	FINLAND.	FRANCE (Paris).	GERMANY (Western).	INDIA.(b)	IRELAND.	ITALY.
1951	69	82	99	67	98	94	91	100	98	87	94
1952	96	96	100	82	101	98	101	102	97	95	98
1953	100	100	-100-	100	100	100	100	100	100	-100-	-100-
1954	104	101	101	118	101	100	100	100	95	100	103
1955	117	103	101	142	101	97	101	102	90	103	105
1956	132	109	104	173	102	108	103	105	99	107	109
1957	165	112	107	206	106	-120-	-106-	106	104	112	110
1958	217	113	108	237	108	128	121	110	109	117	113
1959	464	116	110	326	110	130	129	112	114	117	113
1959—											
March Qtr. ..	352	115	109	291	109	129	128	110	111	118	112
June	449	115	109	311	109	129	128	110	112	118	112
Sept.	513	116	110	334	110	129	129	112	117	116	112
Dec.	541	116	111	368	111	131	131	114	118	115	114

Period.	JAPAN.	NETHERLANDS.	NEW ZEALAND.	NORWAY.	PAKISTAN (Karachi).	PHILIPPINES (Manila).	SWEDEN.	SWITZERLAND.	UNION OF SOUTH AFRICA.(d)	UNITED KINGDOM.	UNITED STATES OF AMERICA.
1951	89	100	89	90	88	111	92	98	89	89	97
1952	94	100	96	98	90	104	99	101	97	-97-	99
1953	100	100	100	100	100	100	100	100	100	100	-100-
1954	106	104	105	104	98	99	101-	101	102	102	100
1955	-105-	106	-107-	105	94	98	104	102	105	105	106
1956	106	108	111	109	97	100	109	103	107	e-112-	102
1957	109	115	113	112	106	102	113	105	110	116	105
1958	108	117	118	118	110	105	119	107	-114-	119	108
1959	110	119	123	120	106	104	120	106	115	120	109
1959—											
March Qtr. ..	109	117	122	120	102	104	119	107	115	121	108
June	109	116	122	120	104	102	119	106	115	120	108
Sept.	110	120	124	121	108	105	120	106	115	119	109
Dec.	111	121	123	121	107	107	121	107	116	120	110

(a) Consumer Price Index as converted to base 1953 = 100 by Commonwealth Statistician.
 (b) Rent is not included. (c) July-December. (d) Index for Europeans only. (e) Linked at January, 1956.

NOTE.—Symbol - on each side of an index number (e.g., -95-) indicates that two series have been linked at that period. 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 though they are shown on the same base period.

INDEX NUMBERS OF CONSUMER (RETAIL) PRICES IN VARIOUS COUNTRIES—*continued.*

(Base: 1953 = 100.)

FOOD GROUP INDEXES.

Period.	ARGENTINA (Buenos Aires).	AUSTRALIA.(g)	BELGIUM.	BRAZIL (Sao Paulo).	CANADA.	FINLAND.	FRANCE (Paris).	GERMANY (Westert).	INDIA.	INDONESIA (Djakarta).	IRELAND.(b)
1951	67	77	96	57	104	92	93	97	96	89	90
1952	97	95	99	74	104	99	102	102	94	94	100
1953	100	100	-100-	100	100	100	100	100	100	100	5100
1954	99	101	103	119	100	98	98	102	93	106	100
1955	110	105	102	142	100	94	99	104	85	141	104
1956	125	113	104	175	101	108	101	106	97	161	105
1957	167	111	107	196	103	-122-	-102-	109	103	177	109
1958	230	112	108	220	108	128	121	112	108	258	119
1959	537	115	109	317	108	130	125	114	115	312	118
1959—											
March Qtr. ..	412	114	109	269	108	129	124	112	109	306	122
June	524	115	109	296	106	128	122	112	112	300	121
Sept.	592	115	110	322	107	130	124	114	119	321	116
Dec.	620	116	111	380	110	132	127	118	119	319	114

Period.	ITALY.	JAPAN.	NETHERLANDS.	NEW ZEALAND.	NORWAY.	PAKISTAN (Karachi)	PHILIPPINES (Manila).	SWEDEN.	UNION OF SOUTH AFRICA.(g)	UNITED KINGDOM.(e)	UNITED STATES OF AMERICA.
1951	94	91	96	86	87	89	111	87	81	126	100
1952	98	94	99	94	99	93	106	98	95	95	102
1953	-100-	100	100	100	100	100	100	100	100	100	-100-
1954	104	108	104	105	108	98	99	100-	101	103	100
1955	106	-105-	106	-108-	108	95	98	105	104	110	98
1956	111	104	110	114	113	100	101	113	106	102	99
1957	111	108	116	113	113	113	105	115	110	105	102
1958	115	106	116	115	122	117	111	119	-114-	107	107
1959	112	107	118	116	125	113	107	121	114	108	105
1959—											
March Qtr. ..	112	106	115	116	126	106	106	119	114	109	105
June	112	106	114	115	124	110	102	119	114	108	105
Sept.	112	108	122	116	125	116	107	121	114	107	105
Dec.	114	108	121	117	125	119	111	124	115	108	105

(a) Consumer Price Index (Food Group) as converted to base 1953 = 100 by Commonwealth Statistician. (b) Base: August, 1953 = 100. (c) July-December. (d) Index for Europeans only. (e) Prior to 1952, base: 1948 = 100; beginning 1956, base: January, 1956 = 100.

NOTE.—Symbol — on each side of an index number (e.g., -95-) indicates that two series have been linked at that period. 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 though they are shown on the same base period.