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POST-WAR PRICE RELATIONS IN TRADE BETWEEN UNDER-DEVELOPED AND INDUSTRIALIZED COUNTRIES

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I. INTRODUCTION

The report of the first session of the Sub-Commission on Economic Development, in considering problems of economic development of under-developed countries, contained the following comment:

"Part VI. International Action in the Field of Economic Development:

B. Capital Goods and Export Prices

"17. The objective of foreign borrowings is to obtain foreign commodities essential for economic development, primarily capital goods. This purpose will be defeated unless the lending countries assume the special responsibility and take measures to the end that goods are available for export and that they are available at reasonable and fair prices...

"18. The recent rise in the prices of capital goods and transport services has made the task of economic development particularly difficult in the case of the under-developed and the least developed countries. The Sub-Commission therefore considers it important that a careful study be made of the prices of capital goods and of the relative trends of such prices and of prices of primary products, so that it may be in a position to make appropriate recommendations concerning the problem."

In considering short-term problems, the report listed, "among the more important of these problems":

"(vii) High prices of goods imported by the under-developed countries, and especially of machinery and equipment".

This study was undertaken in response to the above observations. It is concerned principally with the post-war appreciation of the price of goods imported by under-developed countries -- especially capital goods and of machinery and equipment -- relative to the post-war price appreciation of the exports of under-developed countries, predominantly primary products. The present study is also concerned with the post-war rise in the price of goods imported by under-developed countries, to the extent that they may have been paid for out of accumulations of foreign exchange assets rather than the proceeds of current exports. The present study is concerned with these matters as they relate particularly to problems or difficulties encountered by under-developed countries in carrying forward plans for economic development.

Relations between prices of primary and manufactured goods are considered in broad historical perspective in section III of this report;

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the varied impact of price changes on the terms of trade of a number of under-developed countries and territories is considered in section V.

In preparing this report, it has been necessary to keep in mind certain considerations. For example, a number of under-developed countries which expanded their foreign exchange assets during the war, consequent upon war-imposed export surpluses, shifted to an early post-war import balance, or desired to do so, in order to satisfy the deferred needs of their people and to further the economic development of the country. In such cases, post-war import balances represent goods procured at post-war prices and paid for in goods delivered at war-time prices. Again, some under-developed countries have been able to finance a current import surplus by foreign borrowings and a number desire to do so; in such cases assurance of the adequacy of the prospective prices, rather than the recent or the current prices of primary goods, may be of major concern. A country's programme for economic development, to the extent that it relies upon capital installations, requires continuity of such installations over a period of years; even the completion of individual projects frequently takes several years. On this score, also, the assurance of continuing satisfactory price relations in the current exchange of primary goods for capital goods is important to the under-developed countries.

The study has been conducted in order to provide a factual basis for considering international action that may be taken to provide practical aids for the economic development of under-developed and less developed countries.

The report of the second session of the Sub-Commission on Economic Development, which again considered the study of price trends, stated "That since the object of the study is to examine the problem relating to the supply of capital goods, it will be necessary to include in this study the factors affecting their availability for export to under-developed countries."

A study of capital goods exports, covering comparisons of the post-war and pre-war volume and value of capital goods exports and an analysis of the factors accounting for the changes, with special reference to export policies and export controls, has accordingly, been initiated.

Factual Basis for Analysis of Price Trends

The factual basis for the study is necessarily statistical. The post-war rise in the prices of imports of under-developed countries may be measured by one of two types of statistical data. Given actual market price quotations for commodities imported by the under-developed countries,

/the price change

the price change over a period of time may be measured for each commodity and expressed as a price ratio; the price change for the aggregate of all such commodities, i.e. the change in the average price, appropriately weighted, could also be expressed as a price index. Or, given statistical foreign trade data on the value and quantity of given commodities imported by under-developed countries, corresponding indices may be constructed on the basis of unit values.

A change in the terms of trade is the change in export prices relative to the change in import prices; it may be measured statistically by a price index, or unit value index, of exports divided by the corresponding index for imports. The relative trend in prices of primary products and in prices of capital goods can similarly be measured.

Indices of the terms of trade in the aggregate are reported regularly by the United Kingdom and the United States. These indices are derived from foreign trade statistics and are accordingly based upon unit value computations. Both countries also regularly report unit value indices for major groups of the exports and imports composing the aggregate. No such indices have, however, been regularly reported for the trade of these countries with particular countries or geographic regions.

Terms of trade indices have also been reported, in some cases with a breakdown of data for major groups or commodities exported or imported, for several under-developed countries. These indices, however, are derived in different ways for different countries and they are too few to provide comprehensive coverage.

In general, therefore, it has been necessary to undertake special analyses with the purpose of constructing indices on a uniform basis for the purpose of this study. The indices so constructed are based upon trade statistics and are therefore unit value indices. Market price data were resorted to primarily for consideration of the validity and interpretation of unit value indices. They have also been used, in section III of this report, to illustrate the disparity in the post-war price rise of foods and primary materials generally, and the diversity of post-war price changes in both classes of primary goods.

Comprehensive trade statistics from which to derive unit values have been available only to the end of 1947. This is therefore the most recent period for which uniform data have been prepared. In order to take cognizance of more recent shifts, an effort has been made so far as feasible to add available data for 1948 and for different periods of 1947. In addition to the overall data regularly reported for the United Kingdom, the United States and several under-developed countries,

/the statistical

the statistical data prepared for analysis consist primarily of the following:

(a) Overall indices of the terms of trade and of the unit value of exports and imports of specified groups of goods, including primary product imports and capital goods exports for France, Switzerland, the United Kingdom and the United States;

(b) Unit value indices of the aggregate of goods imported and exported, of specified groups of goods and of selected commodities, including primary product imports and capital goods exports, of the United Kingdom and the United States in their trade with selected under-developed countries, including non-self-governing territories; and

(c) Overall indices of the terms of trade and of the unit value of exports and imports of specified groups of goods and of selected commodities, for selected under-developed countries, including non-self-governing territories.

A number of reservations must be made concerning the accuracy and reliability of the statistical indices, and caution must be used in interpreting them. It may generally be stated that no significance can be attached to comparisons involving relatively small statistical differences. Technical considerations and reservations in appraising the statistical data are presented separately in appendix B on statistical methodology.

A report on changing price relations at the present juncture cannot be expected to produce a fully coherent picture of international prices for given commodities or for given sources of supply. "Few currencies are freely convertible at present, and there is frequently no common price level for the same type of commodity derived from different sources of supply."[1/] Prices in "soft" currency areas may be above prices in the "hard" currency areas, and different currencies may be "hard" or "soft" to different countries.

This report is concerned with a particular aspect of the economic problems which confront under-developed countries, viz. changing price relations in international trade. While such changes have an important impact, both because of their magnitude over the period studied and because of the general importance of foreign trade transactions to

1/ United Nations Department of Economic Affairs, Major Economic Changes in 1948 (Lake Success, New York, January 1949), page 21.

under-developed countries, changing price relations of exports and imports are obviously only a part of the broad problem of economic development. In appendix A, attention is drawn to limitations in the significance of the aspects of the problems studied and the results obtained.

/II. SUMMARY

II. SUMMARY OF FINDINGS

Exports of the under-developed - particularly the least developed - countries are entirely, or almost entirely composed of primary commodities and a minimum of processing is done in the exporting country. Although a number of these countries have to import substantial quantities of food for the basic diet of their populations, imports of manufactured goods generally predominate, particularly among imports from industrially developed countries. The food imports from industrialized countries are generally in processed form, and imports of capital goods are almost wholly from industrially developed countries. In the trade between an under-developed and an industrialized country, special conditions may intervene to affect the prices at which the under-developed country disposes of its primary products or which it pays for imported manufactures. Changes in the terms of trade of under-developed countries are, however, largely determined by the general trend of prices in international trade of the primary products exported, relative to the prices of imported manufactured goods.

Such general statistical data as are available indicate that from the latter part of the nineteenth century to the eve of the second World War, a period of well over half a century, there was a secular downward trend in the prices of primary goods relative to the prices of manufactured goods. On an average, a given quantity of primary goods exported would pay, at the end of this period, for only 60 per cent of the quantity of manufactured goods which it could buy at the beginning of the period.

This decline in the purchasing power of primary goods in international trade was of course not uninterrupted. Prices of primary goods fluctuate more widely over the duration of a business cycle than the prices of manufactured goods. Thus, in 1938, the purchasing power of primary goods was lower than in 1937. But even in 1938, it was considerably higher than at the low point of the depression of the early 1930's.

The statistics analysed in this report consist largely of comparisons of prices during the period following the second World War, with prices in 1938 and 1937; that is, the post-war prices are expressed as a ratio of 1938 or 1937 equal to 100. The post-war price indices for primary goods relative to manufactured goods and, therefore, for export prices of under-developed countries relative to their import prices, would generally be much higher, and more favourable to under-developed countries, by comparison with 1932 or 1933, because of the price pressure on primary goods

/in the

in the depression years and the marked recovery even before the war. On the other hand, the post-war indices would generally be lower, i.e. less favourable, for primary goods relative to manufactured goods, on the basis of prices in the 1920's than on the basis of 1938 or 1937; on a base of 1913, the indices appear very much lower and even less favourable for primary goods and for the under-developed countries.

Primary Goods and Capital Goods

Compared with 1938, prices of primary goods, in general, have increased substantially more than the prices of capital goods. This is reflected in the trade statistics of the under-developed countries analysed for this study, which cover either their entire trade or their trade with the United Kingdom or the United States. Comparison of United Kingdom and United States price indices for exports of classes of goods that are broadly representative of capital goods, with the price indices for their imports of primary goods, is indicative of the general situation.

Price Indices (Unit Values)

	1947		First half of 1948	
	1938 = 100	1937 = 100[a]	1938 = 100	1937 = 100
United States:				
Primary goods imported[b]	235	195	259	212
Capital goods exported	179	177	..	..
Finished manufactures exported	182	180	193	191
United Kingdom:				
Primary goods imported[c]	251	238	281	267
Capital goods exported	210	216	225	232

a/ The figures have been transposed to a 1937 base by assuming that the price movements of finished manufactures between 1937 and 1938 are also applicable to capital goods.

b/ Metals and manufactures, machinery and chemicals for 1947.

c/ Metal goods, wholly or mainly manufactured.

.. Not available.

/It may be

It may be observed that the price relation of primary goods in general, including both foodstuffs and primary materials, to capital goods is now substantially more favourable than in 1938, and also more favourable than in 1937. The price index for primary goods imported by the United States relative to that of capital goods exported by the United States in 1947 is 131 on the basis of 1938 prices and 110 on the basis of 1937 prices. The corresponding index for primary goods imported by the United Kingdom relative to capital goods exported by the United Kingdom would be 119 on the 1938 base and 110 on the 1937 base. In other words, a given quantity of primary goods commanded, on the average, 10 per cent to 31 per cent more capital goods in 1947 trade with the United States than it did in the immediate pre-war years; and 10 per cent to 19 per cent more capital goods in trade with the United Kingdom than it did in the immediate pre-war years. The corresponding percentages for the first half of 1948 were approximately the same.

This does not mean that every under-developed country which exported primary goods would be able to buy more capital goods from the United Kingdom or the United States for a given quantity of its products than it could have bought in the pre-war years. By comparison with 1938, the price relation is favourable for most under-developed countries, with very few exceptions. In relation to 1937, however, the exceptions are more numerous. Price changes among the various primary goods which different under-developed countries export and the various capital goods which they import have been highly diverse. The relative advantage of terms on which primary goods can be exchanged for capital goods in the post-war period, compared with the immediate pre-war period, depends upon the particular goods exchanged in the trade between an under-developed and an industrialized country. The under-developed countries which export primarily non-food materials tend to be considerably worse off than those which export food. If 1937 is the standard of comparison, it ceases to be true, even in general, that exporters of primary materials - as distinguished from foodstuffs - obtain their capital goods on more advantageous terms.

Primary materials, whose prices have deteriorated relative to capital goods are now relatively few in numbers. Prices of tin, rubber and poorer grades of wool had increased, to mid-1948, relatively less than the average for capital goods; the post-war price of bauxite has apparently declined below pre-war level. Countries which concentrate a large part of their exports on such products may therefore obtain a smaller quantity of capital imports for a given quantity of exports

/than they

than they did in the pre-war period. Among the capital goods, copper manufactures, textile machinery and industrial chemicals have increased in price more than the average of primary materials. Imports of these products by under-developed countries have, however, not bulked so large in proportion to the total, that they affect their terms of trade decidedly, except in the case of India, which has been a large post-war importer of industrial chemicals.

Primary Products and Manufactured Products

A useful indication of the general position of exporters of primary products in terms of imported manufactures is obtained by combining the trade of the United Kingdom and the United States. In this way, a high proportion of all exports of manufactured goods and of all outlets for primary products is taken into account and individual features, such as the high price and predominant position of coffee among United States food imports in contrast to low-priced bulk-bought food among United Kingdom imports, are smoothed out.

Price Indices (Unit Values)
(1938 = 100)

	1947		1948
	First half	Second half	First half
Primary goods imported into the U.K. and U.S.	214	223	244
Manufactures exported by the U.K. and U.S.	181	194	200
Price relation	118	115	122

Note: U.K. sterling has been converted into U.S. dollars at the official exchange rate.

Data presented below show that the price relation shown above on a 1938 basis was substantially higher for primary producers in 1937. For trade with the United States, the price relation was higher by 21 per cent; for trade with the United Kingdom by 9 per cent; and for combined trade with the United Kingdom and United States, the percentage was between 13 and 14. Hence, the general relation shown above is 7 to 8 per cent higher in the first half of 1948 than in 1937.

Agricultural Products and Primary Materials

A major factor affecting the terms of trade of various under-developed countries is specialization in production for export of a single item - or a few items - of primary goods. A country's terms of trade are therefore frequently determined by the relative price position of its predominating export product or products.

/The divergence

The divergence between prices of food and of important primary materials emerges as a basic factor in the situation in under-developed countries during the period studied. On the whole, the prices of capital goods in relation to food export prices are now generally favourable, compared with both 1938 and 1937 prices; in general, the 1913 price relation was restored in 1947 and the first half of 1948. Since that date, however, prices of some important foods have declined. The degree of readjustment and its effect in reducing the divergence between food and non-food prices has been reduced, and would require a separate study.

On the average, a given quantity of food imports by the United States bought 60 per cent more United States capital goods exports in 1947 than in 1938 and 31 per cent more than in 1937. A given quantity of food imports by Switzerland bought 28 per cent more of Swiss capital goods exports in 1947 than in 1938. In the case of the United Kingdom, the improvement in the price position of foods imported was much less - 14 per cent over 1938 and 4 per cent over 1937. The United Kingdom data are not representative in this connexion, since food is very largely obtained from the British Dominions and, to a smaller extent, from British oversea possessions at prices below world market prices, under bulk purchase contracts. The indications are that average food prices under such bulk sale contracts increased in 1948 as much as capital goods export prices.

The position of exporters of non-food primary materials is in marked contrast. The increase in the price relation to capital goods, compared with 1938, is small, and compared with 1937 the indications are that the price position may have deteriorated, as illustrated by the following:

Table II - 1. Relative Prices of Crude Materials Imported and Capital Goods Exported, from United States Trade Statistics

	1947	
	1938 = 100	1937 = 100
Crude materials imported by the U.S.	186	156
Capital goods exported by the U.S.	179	177
Price relation	104	88

/Table II - 2.

Table II - 2. Relative Prices of Raw Materials Imported and Capital Goods Exported, from United Kingdom Trade Statistics

	1947	
	1938 = 100	1937 = 100
Raw materials imported by the U.K.	275	258
Capital goods exported by the U.K.	210	216
Price relation	131	119

Table II - 3. Relative Prices of Crude Materials Imported and Capital Goods Exported, from Swiss Trade Statistics

	1947
	1938 = 100
Crude materials imported by Switzerland	214
Capital goods exported by Switzerland	236
Price relation	91

In view of the wide dispersion among the various non-food primary materials, it follows that a considerable number of the exporters of the primary non-food materials had to purchase capital goods in 1947 at prices less favourable in relation to their export prices, than in 1938 or in 1937. Cases in which total terms of trade have become less favourable are more numerous.

Overall Terms of Trade of Under-developed Countries

Among the exports of an under-developed country, a small number of primary products - in some cases as few as one or two - are likely to account for a predominant proportion of the total. Nevertheless, its total exports are very likely to include some other products. Total imports of an under-developed country generally cover a much wider range of products than do exports. Capital goods may or may not be a large part of the total, but they do not form so predominant a part as primary commodities among exports. Other manufactures, especially textiles, and food may be equally, or more, important.

The overall terms of trade of an under-developed country therefore depend upon price changes in a number of export items and upon the distribution of price changes among a fairly wide range of imported products. They do not fully reflect improvement in the price relation of primary goods to capital goods. The prices of imports of other than capital goods by under-developed countries have increased so much more than those of capital goods that the sharply improved price relation, compared with capital goods, has been weakened into a general, but by no means uniform, tendency for the total terms of trade of under-developed

countries to be higher than in 1938, and there has been only a slight tendency for them to be higher than in 1937. This is shown in detail in section V of this report.

In the country studies, which are based on 1938, the average figure of terms of trade is 108 and the median is 106. Both these figures would place the terms of trade of these countries at somewhere near the 1937 figures, which was also, to a limited degree, higher than 1938. A rough summation of the country studies indicates that the 1937 position has been restored. There are, of course, a number of under-developed countries whose terms of trade have deteriorated by comparison with 1938 as well as 1937.

High Textile Prices

The composition of an under-developed country's imports, as well as of its exports, affects its total terms of trade. Among imports, the proportion accounted for by textile manufactures is a most important factor. The post-war price rise of textile manufactures has been outstanding, as indicated both by the country studies discussed in section V, and by the analysis of trade statistics of industrial countries presented in section IV of this report. From the latter it is apparent that the rise in the prices of textile manufactures has been very large; in addition, cheap Japanese textile exports were not available during the post-war period.

Textile manufactures constitute a high proportion of imports of under-developed countries, and their importance increases as the degree of development decreases; it is highest in the least developed countries, including non-self-governing territories.

Apart from the high price of textiles, prices of certain other manufactured consumer goods, for example, radio sets and household equipment, have also increased more than the price of capital goods. Compared with the rise in the price of textile manufactures, however, the rise in the price of manufactured consumer goods has been of small importance. Although there has been an increase in the price of imported food, particularly manufactured food - alcoholic beverages account for a considerable part of the imports of a number of territories - textiles remain the more important factor among imports.

Prices of Various Classes of Goods as Factors Limiting the Supply of Capital Goods

High prices of capital goods cannot be considered, in the aggregate, a significant factor in reducing the supply of capital goods to under-developed countries. The increase in the price of capital goods has

generally been less than the increase since 1938 and even since 1937, in export prices of commodities from under-developed countries. In many cases, the 1913 relation between primary goods and capital goods prices has been restored or nearly restored. It is true that there are certain categories of capital goods, more particularly industrial chemicals, textile machinery, copper manufactures and a few other items - not always the same items for all importing countries - which have increased in price since 1938 more than the export prices obtained by many under-developed countries. Furthermore, in some under-developed countries export prices have risen so little that a somewhat wider range of capital goods has become expensive, relative to export prices received. This, however, reflects relatively low prices of particular raw materials rather than high prices of capital goods.

While prices of capital goods have not been a major factor in limiting supplies in general, the high price paid for imported textile manufactures has had serious consequences. The prices paid by under-developed countries for imported textiles have risen more than the export prices obtained by under-developed countries. In many under-developed countries, especially in the least developed, textile manufactures represent the predominant part of all imports. The high prices of textiles have, therefore, been a most serious factor in reducing the amount of foreign exchange available for the purchase of capital goods. In general, it appears that if the import price indices for textiles were nc higher than the total export price indices for under-developed countries the purchase of at least one-third more of capital goods [1] could have been financed by the exports of the under-developed countries.

Prices of manufactured consumer goods other than textiles, such as household equipment, toys, etc., have also tended to increase more than the prices of capital goods, although not so much as the prices of imported textiles. High prices for such goods do not, however, affect the bulk of the imports of under-developed countries. High prices of imported food are more important.

The prevalence of higher prices for manufactured consumer goods compared with capital goods is illustrated by the following table which

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1/ Assuming convertibility of currencies needed for textile imports and capital goods imports.

has been taken from the study Terms of Trade in Latin American Countries prepared by the International Monetary Fund. This table contains index numbers for 1946, based on 1938; durable consumer goods includes radios, housewares etc., and also automobiles and their parts.

Table II - 4. Import Price Indices, in terms of dollars, with 1938 weights, for 1946
(1938 = 100)

	Durable consumer goods	Machinery and equipment
Brazil	191	163
Chile	172	134
Colombia	158	170
Cuba	151	168
Guatemala	148	132
Mexico	176	152
Peru	203	162

In five of the seven countries, durable consumer goods were relatively more expensive than machinery and equipment, compared with 1938. A weighted average for the seven countries yields a price index for durable consumer goods appreciably above that for machinery and equipment.

Importance to Under-developed Countries of Changing Price Relations

It is difficult to over-emphasize the importance which changes in an under-developed country's terms of trade may bear upon the financial resources available for economic development. Regardless of the efficiency with which an under-developed country mobilizes and utilizes its domestic resources, it will necessarily require the importation of equipment and other capital goods which are necessary to its economic development but are not otherwise available. The adverse long-term trend in the prices of primary goods relative to manufactures has obviously meant a continuing increase in the amount of primary goods a country must supply in order to obtain a given quantity of goods for economic development. The price pressure on primary goods, which is typical of industrial depressions, drastically curtails the amount of goods an under-developed country can buy in exchange for its exports at the very time when it might otherwise readily obtain the goods needed for its economic development.

The direct effects of the terms of trade on the financial resources available for economic development are the most important but by no means the only considerations. Favourable changes in the terms of trade of under-developed countries improve their ability to meet debt service on foreign loans and withdrawals of earnings of foreign-financed investments.

/Their ability

Their ability to accelerate economic development through foreign financing is also improved. The unfavourable long-term trend in the prices of primary materials relative to capital goods has, conversely, limited the capacity of under-developed countries to absorb foreign financing for economic development and has thereby tended to restrict foreign investment to the acquisition of sources of raw material supplies. The depression squeeze on prices of primary goods, moreover, generally confronted under-developed countries with harsh alternatives: serious reduction in already low living standards, or default on debt service, which impaired the possibility of foreign financing for economic development for an indefinite period in the future. All too frequently no choice between the two was found and both unhappy results followed.

One measure of the importance of terms of trade for the development of non-industrialized countries will be found in the figures in Appendix A, which show that the foreign trade of under-developed countries tends to be larger in proportion to total national income than in the case of industrialized countries. Measures of national income are specially designed for industrial economies; comparison of national income figures for industrialized but economically less developed countries is therefore often misleading. From the standpoint of countries looking forward to substantial economic development, however, the comparison of foreign trade as related to national income is significant.

It is instructive to examine the amount of money involved in certain changes in the terms of trade that have been observed in this report. From the standpoint of the under-developed countries, changes in the terms of trade represent estimated changes in the volume of financial resources which are available in the form of foreign exchange for the import of such goods as may be needed for their economic development.

Pre-war exports of primary producing countries were valued at $7,000 to $7,500 million annually. Corresponding exports in 1947 were approximately equal to the pre-war volume. The export prices of these goods are, however, more than twice the 1938 level (in terms of United States dollars). The present value of the exports of under-developed countries may therefore be set conservatively at roughly $15,000 million. Thus, a 10 per cent change in their terms of trade would modify the ability of under-developed countries to import, by as much as $1,500 million.

Section III of this report shows that, on the basis of figures for the United Kingdom and the United States, 1913 prices were more favourable than 1947 prices to under-developed countries by one-fifth to one-sixth

on the average. A corresponding improvement over 1947 would yield under-developed countries $2,500 million to $3,000 million for economic development through international trade.

Under-developed countries are also concerned about the instability of the price position of their exports and the threat of price pressure in case an industrial depression arises out of factors outside the area of their domestic responsibilities or their international economic influence. The figures in section III provide the basis for a rough estimate of the amounts involved in such circumstances.

Comparing 1929 and the succeeding lowest year in each case, the general indices for prices of primary, as related to manufactured, products become less favourable to the under-developed countries by 25 per cent of 1929 parity; the two United Kingdom indices each become about 20 per cent less favourable between 1929 and 1933; and the two United States indices, 34 to 39 per cent less favourable between 1929 and 1932. In short, the indications are that the depression had adverse effects considerably exceeding 20 per cent, and a recovery of the lost ground would involve considerably more than $3,000 million a year at current values. Moreover, the sum involved would be in a form which would be readily at hand to import goods for economic development as needed and desired, without the restrictive elements associated with international loans. The estimated annual amount of $3,000 million may be compared with an annual maximum of $1,200 million of total private United States investment in all countries during the inter-war period (or about $2,500 million at current prices). It may also be compared with a total as on June 1948 of $1,400 million of uncommitted present resources at the disposal of the International Bank for Reconstruction and Development, much of it in currencies which are presently unconvertible. (This amount does not include the total reserve capital of the Bank, amounting to $6,600 million, which is available as a guarantee fund for the Bank's own bonds.)

III. OVERALL PRICE TRENDS

Available indicators of overall trends in prices of different classes of goods, and relative changes in prices of different classes and kinds of goods, are given in this section, which also includes currently available statistical data to provide an historical perspective for a better understanding of the specific price relations considered in the remainder of the report. This section also contains price changes between recent pre-war years and the post-war period for different primary goods, since such goods largely represent the products sold by under-developed countries in international trade. Finally, there are presented in this section some overall indications of price changes, between the pre-war and post-war periods, for manufactured goods and classes of manufactures that are representative of capital goods exported by industrialized countries.

Historical Perspective

Although no overall indices are available for prices paid and received by under-developed countries in international trade, there are a few indices which reflect the price situation over a long period of time in a general way. In table III-1, two such indices are presented for the period beginning 1876. Both are unit value series and are based upon weights for the current year. The first is an index of prices of primary commodities, relative to prices of manufactured commodities in world trade. It is based upon the trade statistics of the major trading countries and a number of others. Few of the under-developed countries are directly included in the sample, but their trade with the countries covered, as well as trade among the covered countries, is comprised in the figures. The second series is an index of the imports of the United Kingdom relative to its exports. The United Kingdom has accounted for a substantial proportion of total trade, especially in earlier years. Further, its imports are largely primary commodities and its exports predominantly manufactured goods.

/Table III-1

Table III-1. Selected Price Relatives

(1938 = 100)

Period	Primary to manufactured commodities in world trade a/	United Kingdom imports to exports based upon	
		current year weights b/	Board of Trade index
(1)	(2)	(3)	(4)
1876-80	147	163	..
1881-85	145	167	..
1886-90	137	157	..
1891-95	133	147	..
1896-1900	135	142	..
1901-05	132	138	..
1906-10	133	140	..
1911-13	137	140	..
1913	137	137	143
1921	94	93	101
1922	103	102	109
1923	114	107	111
1924	121	122	117
1925	123	125	120
1926	121	119	117
1927	125	122	117
1928	121	123	120
1929	118	122	120
1930	105	112	109
1931	93	102	99
1932	89	102	99
1933	89	98	96
1934	96	101	99
1935	98	103	100
1936	102	107	103
1937	108	107	109
1938	100	100	100
1946	..	..	108
1947	..	..	116

.. Not available.

a/ Based on League of Nations, Industrialization and Foreign Trade.

b/ Based on W. Schlote, Entwicklung und Strukturwandlungen des englischen Aussenhandels von 1700.

/In general,

In general, the two series present a similar trend, although the absolute magnitude of the indices in certain periods differs somewhat. These differences of magnitude presumably reflect mainly differences in the composition of the trade of the United Kingdom and the composite trade of the countries covered by the more general index. The third column, the official British Board of Trade indices, converted to a 1938 base, may be compared with the longer United Kingdom series, which is based on current year weights. The Board of Trade series uses fixed weights for a period of years, changing the weights from time to time.

It will again be observed that the two United Kingdom series, although presenting similar trends, show some differences in the absolute magnitudes of the indices for various periods. The differences are sometimes as high as 10 per cent and frequently as much as 5 per cent. This comparison has been added here to indicate the importance of considering the weighting system in interpreting differences between two statistical indices.

Data prior to the 1870's, the period with which table III-1 begins, are available only for the United Kingdom index presented in column 3. These data show that from the early part of the nineteenth century there was a marked rise in the index -- that is, in the prices of United Kingdom imports relative to prices of United Kingdom exports -- and the index reached its highest level in the 1870's. The index in the first line of table III-1 thus begins at the peak figure for the recorded period.

The series representing the total relationship of United Kingdom import prices and United Kingdom export prices, taken by itself, furnishes only indirect evidence of the deterioration in price relations for primary products. It is, however, confirmed by four other series presented in this report; all of these measure prices of primary commodities in relation to those of finished products directly.

The general trend from the 1870's to the last pre-war year, 1938, notwithstanding marked fluctuations which intervened, was unmistakeably downward. In other words, average prices of primary commodities relative to manufactured goods have been declining over a period of more than half a century. By 1938, the relative prices of primary goods had deteriorated by about 50 points, or one-third, from the beginning of the period and about 40 points, somewhat less than 30 per cent, after 1913.

Between 1870 and 1913 there had been no over-all change in the import price ratio of food and non-food primary materials. Between 1913 and 1938, however, the decline was a little less marked for food than for non-food materials.

/Short-run

Short-run fluctuations in the price indices are concealed in the earlier period covered by the table, because the indices are averages for five-year periods. Such fluctuations are pronounced, however, in the inter-war period, for which the indices are presented on an annual basis. In the depression of 1921, the prices of primary goods relative to manufactured goods had declined about one-third, compared with the 1913 level. Thereafter, the recovery in prices of primary goods was faster than the appreciation in prices of manufactured goods, but the 1913 level relative to manufactured goods was not again approached. Again, the depression of the early 1930's reduced the prices of primary goods relative to manufactured goods by approximately one-fourth, compared with the 1929 level. The recovery in the few years which followed, before the second World War, was relatively slight.

In short, prices of primary commodities had been declining relative to manufactured goods over a long period of time prior to the second World War. In addition to the secular decline, prices of primary goods have been subject to especially severe price pressure during periods of depression.

It will be observed on the basis of the 1947 index for the United Kingdom that the price pressure of the early 1930's was overcome to a considerable extent, although the index remained far below the 1913 level.

In the analysis which follows in this and succeeding sections, devoted primarily to a comparison of prices in the periods before and after the second World War, the year 1938 is generally used as the base. It has the advantage of being the last full pre-war year. It was, however, a year of recession in industrial production -- of severe recession in the United States and of marked recession from 1937 levels of industrial production in a number of European countries. It is of interest therefore to observe the change in price relationships which coincided with the recession in industrial production. The figures in table III-1 indicate that the prices of primary commodities relative to prices of manufactured goods had deteriorated by 8 points between 1937 and 1938. Corresponding post-war price indices would therefore be about 7 per cent lower on a 1937 base than on the 1938 base.

The United States, for some time the largest industrialized country, has also become the largest trading country in the post-war period. Price indices based upon unit values for United States trade beginning with 1913 are presented in tables III-2 and III-3.

/Table III-2

Table III-2. Prices of Primary Commodities Imported into the United States in Relation to Prices of United States Exported Finished Manufactures

(1938 = 100)

	Price index of imported primary commodities	Price index of exported finished manufactures	Terms of trade (1) ÷ (2) X 100
	(1)	(2)	(3)
1913	150	107	140
1921-25	184	157	117
1926-30	190	134	142
1929	183	131	140
1930	140	125	112
1931	101	100	101
1932	77	91	85
1933	75	87	86
1934	88	94	94
1935	90	96	94
1936	102	97	105
1937	122	101	121
1938	100	100	100
1947 a/	235	183	129

a/ Average of two half-years.

/The indices

The indices in table III-2 show the prices of imported primary commodities relative to prices of exported finished manufactures. As in the case of table III-1, the decline in prices of primary commodities relative to manufactured goods between 1913 and 1938 is about 40 points, somewhat less than 30 per cent. The intervening course of prices, though of the same general character, was, however, different in certain aspects. The depression decline was completely overcome in the later 1920's; the succeeding depression pressure was much harder on primary goods prices than is indicated in table III-1; the recovery by 1937 and the recession in 1938 are more marked; and the recovery by 1947 is again, more marked. In so far as the United States trade position may be expected to be maintained in the post-war period, particularly in trade with under-developed countries, the 1947 United States index is an appropriate measure for considering price relationships in the future. With regard to the historical perspective, however, with which we are here principally concerned, a comparison of import prices of primary commodities and import prices of finished manufactures entering into the United States is equally important, because the prices of United States imports of finished manufactures may reflect (subject to differences in composition) the price conditions under which under-developed countries had to buy manufactures from all the countries which exported them to the United States.

/Table III-3

Table III-3. Prices of Primary Commodities Imported into the United States in Relation to Prices of United States Imported Finished Manufactures
(1938 = 100)

	Price index of imported primary commodities	Price index of imported finished manufactures	Price relative (1) - (2) X 100
	(1)	(2)	(3)
1913	150	106	141
1921-25	184	165	112
1926-30	190	154	123
1929	183	152	120
1930	140	135	104
1931	101	115	88
1932	77	93	83
1933	75	88	85
1934	88	93	95
1935	90	92	98
1936	102	94	108
1937	122	93	131
1938	100	100	100
1947[a/]	235	233	101

a/ Average of two half-years.

Table III-3 presents the prices of primary commodities imported into the United States relative to prices of finished manufactures imported into the United States. The movement of this index conforms more closely to the indices in table III-1 with regard to the relative position of primary commodity prices in the 1920's and their relative position in 1947. The price pressure of the early 1930's is still somewhat harder, and the recovery in 1937 and the recession of 1938 are sharper. The latter, it will be noted, is determined by price changes between 1937 and 1938 in primary commodities which are common to Tables III-2 and III-3. These indices for primary commodities relative to manufactured goods would be about one-sixth, rather than 7 per cent, lower on a 1937 base than on a 1938 base.

The United Kingdom data presented above suggest that on the basis of post-war weights, the terms of trade of under-developed countries with the United Kingdom in 1947 have to be raised by approximately 17 per cent in order to restore the 1913 level; on the basis of pre-war

/weights,

weights, the increase would have to be approximately 23 per cent. Roughly, 1913 was about one-fifth higher than 1947 for under-developed countries.

In making this comparison between 1913 and 1947 it should be borne in mind that exporters of food, generally obtained higher prices outside the United Kingdom, as is shown by the data presented in section IV. Offsetting this factor, is the evidence that importers of manufactured goods had to pay higher prices for manufactured imports from countries other than the United Kingdom and the United States.

In comparing the relationship between prices of primary goods and of finished manufactures as reflected in the United States trade statistics, it is found that 1913 was about 8 per cent higher than 1947 for primary goods suppliers as buyers of United States exports of finished manufactures; 40 per cent higher as buyers of United States imports of finished manufactures. In appraising these two disparate percentages as indicators of the relative price terms on which under-developed countries generally exchanged their goods for their imports, certain factors have to be taken into account statistically, e.g.:

(a) The relative weights to be assigned to United States exports of finished manufactures in total imports of under-developed countries;

(b) Adjustments that may be necessary in the composition of United States imports of finished manufactures before they can be used as an indication of such manufactures imported by the under-developed countries from countries other than the United States.

The comparison showing that the 1913 price relation was higher than 1947 by 40 per cent is qualified by evidence that under-developed countries may realize larger increases in prices of primary goods sold to other countries than the United States. On balance, the two United States figures tend to confirm the estimate that the 1913 price position of primary goods was, roughly, between one-fifth and one-sixth higher than 1947.

Changes in Price Quotations of Primary Products

Exports of under-developed countries are predominantly primary products. Table III-4 presents average 1947 price indices relative to pre-war years, based on price quotations of selected primary products in selected markets. The commodities are arrayed according to the magnitude of the price indices relative to 1938.

Price quotations for individual primary commodities which compare two single points of time are of doubtful validity. Prices fluctuate

/widely

widely from year to year and often during the year as well. The choice of a base date gives individual figures a somewhat adventitious character. Moreover, prices for various grades and sources of supply of the same commodity do not necessarily move together. Further, especially since the war, market prices in different currency areas may diverge. Prices are often different under varied types of sales contracts and arrangements. For these reasons the following analysis of price quotations is confined to the general picture which is confirmed by available evidence; it does not consider prices of individual commodities.

The markets from which the price quotations are taken are mainly in the United States. Some United Kingdom quotations have been used; they have been converted into United States dollars at the official exchange rate, thus taking into account intervening changes in the exchange rate. The commodities selected are those for which price data are more readily accessible. Although they do not cover all commodities which under-developed countries export, and although the selected commodities are sold in other markets and in other grades than those chosen for the preparation of the table, the selection is believed to be adequate to indicate certain factors of general significance.

The most striking fact is the wide dispersion of price changes for the different primary commodities between the pre-war period and 1947. On a 1938 base, the index runs from 665 for cocoa to 142 for rubber, a range of more than 500 points. Most under-developed countries depend largely upon exports of a few primary products. Their terms of trade will, therefore, depend upon the particular primary products that are important in their exports.

The second point to be observed is that the terms of trade of under-developed countries in the post-war, compared with the pre-war, period may be substantially different if the basis of comparison is shifted from 1937 to 1938, if certain primary products are important exports. The change in the index with a shift from the 1938 to the 1937 base is very large in the case of some commodities, relatively small in some and negligible in others.

Table III-4. Price Ratios of Selected Primary Products in Certain Markets, 1947

No.	Commodity	World trade 1938 (Millions of U.S. dollars)	Price ratio 1938 = 100	Price ratio 1937 = 100	Price ratio, 1938 1937 = 100
1.	Cocoa	87	665	415	62
2.	Shellac	68	632	534	85
3.	Palm kernel oil	34	574	373	65
4.	Rye	41	542	319	59
5.	Copra	72	515	272	53
6.	Sisal	28	414	264	64
7.	Soy beans	74	409	256	63
8.	Cotton (U.S.)	600	382	292	76
9.	Linseed oil	110	381	316	83
10.	Manila hemp	24	372	233	62
11.	Jute	46	367	336	91
12.	Corn	220	365	191	52
13.	Oats	21	356	246	69
14.	Flaxseed	50	355	320	90
15.	Cotton-seed oil	19	347	298	86
16.	Wheat	442	339	220	65
17.	Coffee	263	338	238	70
18.	Barley (malting)	80	329	226	69
19.	Rice	197	318	292	92
20.	Lumber (softwood)	434	313	278	89
21.	Lead	74	309	244	79
22.	Peanuts	93	288	258	89
23.	Cheese	92	287	232	81
24.	Cattle	106	279	229	82
25.	Pork	216	268	230	86
26.	Beef	222	266	200	75
27.	Sheep and lambs	17	266	210	79
28.	Lard	40	260	199	77
29.	Silk, raw[a/]	124	260	236	91
30.	Butter	304	255	210	82
31.	Bananas	50	240	240	100
32.	Hides & skins	310	234	162	69
33.	Zinc	34	228	161	71
34.	Copper	325	210	159	76
35.	Eggs	96	205	196	95
36.	Tobacco	359	204	180	89
37.	Tea	202	196	199	101
38.	Tin (straits, N.Y.)	195	184	144	78
39.	Sugar	340	180	172	96
40.	Petroleum	448	164	159	97
41.	Wool (crossbred 46s London) [b/]	435	164	110	67
42.	Nitrate of soda	42	148	153	103
43.	Rubber	287	142	107	76

a/ 10 months, 1947.

b/ September 1947 only. The higher grades of wool have increased more in price than the low grade selected, but the latter is considered more representative of the exports of under-developed countries.

/The world

The world export figures shown in the first column of the table may be used as weights for deriving an average change among all the products. On this basis, the average of the 1947 prices on the 1938 base is 278; on the 1937 base, 215. This indicates an average decline in prices of a little more than 20 per cent between 1937 and 1938.

The important products for which prices were stable in 1938 compared with 1937 are petroleum, tobacco, sugar and bananas. The basic metals, rice and the specialized textile fibres were also relatively stable in price; all declined less than the average. On the other hand, large declines were registered in cotton, wool, the important grains, coffee, tin and rubber.

A comparison of the character of the products at the top of the array with the products at the bottom of the array indicates that the post-war appreciation of prices has been large for foods but relatively small for primary materials. This is largely owing to the lagging prices of minerals; textile materials have increased as much as food. The primary materials predominate among the products at the bottom of the array. Among the primary materials, the post-war price appreciation of cotton and other textiles was rather large; it was relatively small for the metals, petroleum, the cheaper grades of wool and rubber.

The relative changes for different groups of primary products are shown by the following averages, derived by weighting the indices in table III-4 by the value of pre-war exports shown in the table. On a 1937 base, the divergence between food and non-food items is somewhat reduced.

Average price ratio, 1947 compared with 1938

Food, excluding vegetable oils	297
Vegetable oils (partly food)	447
Other primary materials	255
Textiles	261
Minerals	194
Total	276

Average price ratio, 1947 compared with 1937

Food, excluding vegetable oils	224
Vegetable oils (partly food)	309
Other primary materials	205
Textiles	218
Minerals	162
Total	213

/The preceding

The preceding analysis covers the period to the end of 1947.[1/] Since then, there have been important shifts in the situation. These have been discussed in "Review of International Commodity Problems, 1948", prepared by the Interim Co-ordinating Committee for International Commodity Arrangements which at present forms part of the Secretariat of the United Nations.

The net effect of these shifts has been to reduce somewhat the disparaties between food, oils and textile materials on the one hand, and metals, rubber and oil on the other hand.

This table indicates a recent tendency towards reducing the divergencies. The general average rose 14 per cent during the year, but for the lagging group of mineral prices increased 23 per cent, while textiles rose 2 per cent. The process of readjustment has apparently continued, especially because of a decline in food prices and a further increase in metal prices.

Effect of Specialization of Exports

The effect of prices of particular primary products on the terms of trade of individual under-developed countries is indicated in table III-5. In this table, the first column gives the array of commodities in descending order of price indices in table III-4. The remaining columns show for each country the percentage of total exports accounted for by the given product in 1938. These figures indicate the extent to which the terms of trade of individual countries may be dependent upon the relative price of a single primary product or of a few primary products.

It will be observed that a number of the countries had 50 per cent or more -- as much as 92 per cent in the case of Venezuela -- of their exports concentrated in one primary product. The terms of trade of such countries will be largely or predominantly determined by the price position of that one product. In a number of cases, two or more products are important. It may be noted that several products are in some cases at widely different positions in the array. In such cases, the favourable price position of one product offsets the unfavourable position of another.

Cotton, among the products which enjoyed a relatively large appreciation of prices in the post-war period, accounted for 77 per cent of all of Egypt's exports in 1938 and substantial proportions of the total exports of several Latin American countries. Coffee accounted

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1/ The analysis of section IV, however, covers the period to June, 1948.

TABLE III - 5

DISTRIBUTION OF PRE-WAR[a] EXPORTS FROM UNDER-DEVELOPED COUNTRIES OVER PRIMARY COMMODITIES ACCORDING TO DEGREE OF PRICE RISE SINCE 1938

1947 Price (1938=100)	COMMODITIES (Listed in order of magnitude or price increase)	CENTRAL AMERICA including MEXICO and CARIBBEAN AREA: Barbados	Dominica	British Honduras	Costa Rica	Cuba	Dominican Republic	El Salvador	Falkland Islands	Grenada	Guadeloupe	Guatemala	Haiti	Honduras	Jamaica	Leeward Islands	Martinique	Mexico	Nicaragua	Panama	Puerto Rico	St. Lucia	St. Vincent	Suriname	Trinidad and Tobago	SOUTH AMERICA: Argentina	Bolivia	Brazil	British Guiana	Chile	Colombia	Ecuador	French Guiana	Paraguay	Peru	Uruguay	Venezuela
665	Cocoa	-	-	-	8	-	14	-	-	47	-	-	-	-	-	-	-	-	-	12	-	6	-	-	8	-	-	54	-	-	-	30	-	-	-	-	-
447[b]	Seeds and oils	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	13	-	-	-	-	-	-	-	-	-	5	-
414	Sisal	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Cotton (U.S.)	-	-	-	-	-	-	-	-	-	-	-	15	-	-	15	-	5	5	-	-	-	29	-	-	-	-	18	-	-	-	-	37	18	-	-
367	Jute	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
365	Corn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-
359	Wheat	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-
358	Coffee	-	-	-	49	-	8	87	-	-	-	65	50	-	-	-	-	-	35	-	-	-	-	7	-	-	-	45	-	-	53	15	-	-	-	-	5
329	Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
318	Rice	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-
313	Lumber	-	-	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	48	-	-	-	-
309	Lead	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-
287	Cheese	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
279	Cattle	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
267[b]	Meats	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	-	-	-	-	-	-	9	-	21	-
260	Silk, raw	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
255	Butter	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
240	Bananas	-	10	14	28	-	-	-	-	-	29	27	6	57	60	-	15	-	13	74	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-
234	Hides and skins	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	9	-	10	-
228	Zinc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
210	Copper	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	48	-	-	-	17	-	-
205	Eggs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
204	Tobacco	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
196	Tea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-
184	Tin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	71	-	-	-	-	-	-	-	-	-	-
180	Sugar	50	-	-	-	70	81	-	-	-	42	-	11	-	17	66	47	-	-	-	67	48	-	8	17	-	-	-	58	-	-	-	-	-	7	-	-
164	Petroleum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	66	-	-	-	-	-	22	13	-	-	34	-	98
164	Wool	-	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	44	-
148	Fertilizers (nitrate of soda)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-
142	Rubber	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	-	-
	Total % of imports covered	50	31	69	85	80	83	87	96	47	71	92	91	57	77	81	62	42	59	86	78	70	29	21	91	78	71	68	58	69	80	58	48	80	81	80	97

a/ The date chosen is 1938 in the great majority of cases; in a few cases, figures for adjoining periods had to be substituted.

b/ Average of two or more prices.

/TABLE III - 5 (continued)

TABLE III - 5 (Continued)

DISTRIBUTION OF PRE-WAR EXPORTS FROM UNDER-DEVELOPED COUNTRIES OVER PRIMARY COMMODITIES ACCORDING TO DEGREE OF PRICE RISE SINCE 1938

		EUROPE:								AFRICA:													ASIA:															
1947 Price (1938=100)	COMMODITIES (Listed in order of magnitude of price increase)	Albania	Bulgaria	Finland	Greece	Hungary	Poland	Roumania	Yugoslavia	Belgian Congo	Egypt	French Equatorial Africa	French West Africa	Gold Coast	Kenya-Uganda	Madagascar	Nigeria	Northern Rhodesia	Sierra Leone	Tanganyika	Federation of Malaya	Burma	Ceylon	China	India	Iran	Iraq	Indonesia	Philippines	Siam	Lebanon and Syria	Turkey
665	Cocoa	-	-	-	-	-	-	-	-	-	-	-	10	29	-	-	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
447[b/]	Seeds and oils	-	-	-	6	-	-	-	-	7	6	11	56	-	-	-	47	-	21	-	-	-	6	6	11	-	-	6	26	-	12	-
414	Sisal	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
382	Cotton (U.S.)	-	-	-	-	-	-	-	-	12	77	18	-	-	42	-	-	-	-	10	-	-	-	13	13	-	6	-	-	-	-	-	7
367	Jute	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-
365	Corn	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
339	Wheat	-	-	-	-	13	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-
338	Coffee	-	-	-	-	-	-	-	-	-	-	-	7	-	13	32	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
329	Barley	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	-	-	-	-	-	-	-	-
318	Rice	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45	-	-	-	-	-	-	-	47	-	-	-	-	-	-
313	Lumber	-	-	26	-	-	17	11	16	-	-	40	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	6	-	-	-	-	-	-
309	Lead	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
287	Cheese	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
279	Cattle	8	-	-	-	12	4	5	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-
267[b/]	Meats	-	-	-	-	-	15	-	6	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
260	Silk, raw	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-
255	Butter	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
240	Bananas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
234	Hides and skins	14	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	-	-	5	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-
228	Zinc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
210	Copper	-	-	-	-	-	-	-	-	26	-	-	-	-	-	-	-	90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
205	Eggs	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-
204	Tobacco	-	43	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	27	-	-	-	-
196	Tea	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	65	-	13	-	-	9	-	-	-	-	-	-	-	-	-
184	Tin	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	15	-	-	-	17	-	-	5	-	-	-	5	-	23	-	-	-	-	-	-
180	Sugar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	44	-	-	-	-	-	-	-
154	Petroleum	22	-	-	-	-	-	43	-	-	-	-	-	-	-	-	-	-	-	-	10	25	-	-	-	73	-	22	-	-	-	-	-	-	-	-	-
164	Wool	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	12	5	-	-	-	-
148	Fertilizers (nitrate of soda)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
142	Rubber	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	-	17	-	-	-	-	20	-	14	-	-	-	-	-	-
	Total % of imports covered	61	43	31	56	25	34	75	33	51	83	69	73	29	66	49	84	90	21	63	75	77	88	36	58	73	56	74	70	90	24	39				

b/ Average of two or more prices.

/for a predominant

for a predominant proportion of the exports of several Latin American countries and approximately half of the exports of several others. In the intermediate range of price increases, Ceylon was dependent primarily on the price of tea and two of the small Central American republics on the price of bananas. Among the products at the very bottom of the scale, Bolivia was predominantly dependent upon tin prices; Cuba and the Dominican Republic on sugar prices; Venezuela and Iran on petroleum prices. Petroleum accounted for a relatively large proportion of the exports of a number of other countries; copper for almost half of Chilean exports; rubber, for almost half of British Malayan exports; sugar, for almost half of Philippine exports, more than balancing seeds and oils at the other end of the price scale; Siam's tin exports were balanced by half the exports of rice.

It is thus evident that the experience of various under-developed countries differs considerably, according to the price position of the particular primary products in which each specializes.

It has already been observed that price changes between 1937 and 1938 differed considerably among commodities, as compared with the average. A second column of indices based upon 1947 prices relative to 1937 prices, but weighted as in the preceding column, has therefore been added in table III-4 for comparison. The bottom column in Table III-5 shows the proportion of the total exports of each country accounted for by commodities included in the index presented in the first column. It will be noted that in some cases, other exports than the primary selected commodities considered in this section accounted for the major share of total exports, i.e. those cases in which the figure in the last column is less than 50 per cent.

Table III-6 shows "Index of the export price situation" for the period 1938 to 1947 for the countries included in table III-5. This index has been computed in the following manner: It is assumed that each of the listed countries obtained for its major export commodities the price listed in table III-4, which is based on market quotations. Hence the index measures the relative position of different countries according to world market price movements for their major export articles. It does not measure their actual export prices, which are determined by the specific markets and conditions under which export articles are sold.

Table III-6. Index of Export Price Situation, 1947
(1938 = 100)

Central America, Including Mexico and Caribbean Area		282
Grenada	665	
St. Vincent	382	
Dominica	380	
El Salvador	338	
Costa Rica	336	
Haiti	327	
Nicaragua	318	
Guatemala	309	
Panama	299	
British Honduras	298	
St. Lucia	283	
Dominican Republic	277	
Surinam	272	
Mexico	256	
Honduras	240	
Jamaica	227	
Leeward Islands	217	
Trinidad and Tobago	211	
Guadeloupe	204	
Martinique	192	
Cuba	183	
Puerto Rico	183	
Barbados	180	
Falkland Islands	179	
South America		267
Ecuador	468	
Brazil	369	
French Guiana	313	
Argentina	310	
Colombia	284	
Paraguay	281	
Peru	232	
Uruguay	217	
Chile	191	
Bolivia	184	
British Guiana	180	
Venezuela	171	

/Europe

Europe		260
Hungary	310	
Finland	304	
Yugoslavia	293	
Poland	291	
Roumania	231	
Greece	230	
Albania	219	
Bulgaria	204	
Africa		391
Gold Coast	665	
French West Africa	466	
Sierra Leone	447	
Nigeria	431	
Egypt	387	
Tanganyika	383	
Kenya-Uganda	359	
French Equatorial Africa	352	
Madagascar	320	
Belgian Congo	280	
Northern Rhodesia	210	
Asia		250
India	347	
China	314	
Syria-Lebanon	306	
Iran	285	
Philippines	279	
Burma	268	
Siam	256	
Turkey	231	
Ceylon	203	
Indonesia	190	
Iran	164	
Federation of Malaya	154	

/Grouping countries

Grouping countries according to the indices measuring their export price position in 1947 relative to 1938 results in the following regional indices:

Africa	391
Central America, Mexico, Caribbean area	282
South America	267
Europe	260
Asia	250

On the basis of this index, export prices of primary products increased 2.5 times or more, on the average, for all regions, though less for Asian than for Latin American countries. The African index is the highest.

Finished Manufactures and Capital Goods

Direct price quotations comparable to the price quotations of primary products considered above are not available for manufactured goods generally, or for capital goods. Indices for manufactures and certain classes of capital goods have been derived from the trade statistics of selected industrial countries; these are compared with indices for primary products derived from the same sources in section IV of this report. Though a precise comparison of such unit value indices with the indices derived from price quotations is not warranted, it is of interest to note here the general range of the unit value indices.

Table III-8 presents in summary form the unit value indices of manufactured items and selected classes of manufactures that are representative of capital goods, derived from the trade statistics of the four industrial countries for which the indices can be readily expressed on the basis of currencies convertible into United States dollars: The United Kingdom, the United States, Sweden and Switzerland.

Table III-7 Price Indices of Manufactures, 1947

1938 = 100

	Price index
United States: Export price index of finished manufactures	190
United States: Export price index of semi-finished manufactures	188
United States: Export price index of selected capital goods[a]	179
United States: Import price index of finished manufactures	242
United States: Import price index of semi-manufactures	201
United Kingdom[b]: Export price index of metal manufactures	183
United Kingdom[b]: Export price index of manufactured textiles	267
United Kingdom[b]: Export price index of other manufactured products	197
United Kingdom[b]: Export price index of all manufactured products	202
United Kingdom[b]: Import price index of manufactured products	213
Sweden[b]: Export price index of selected capital goods to under-developed countries	202[c]
Switzerland: Export price index of iron and steel manufactures, other than watches	236
Switzerland: Import prices of metal manufactures	173
Switzerland: Import price index of vehicles	193

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a/ For a list of the goods included, see appendix C.

b/ United Kingdom and Swedish price indices have been converted into United States dollars.

c/ Mean of 1938 and 1947 weighting.

It will be noted that the price indices for metal manufactures and for other classes which are representative of capital goods are, with the sole exception of Swiss iron and steel manufactures other than watches, near or below 200 - an indication that prices of such goods, on the average, have not quite doubled between 1938 and 1947. The price indices for total manufactures, on the other hand, are double or more, compared with 1938, with the exception of United States exports.

The table also includes prices indices for manufactured imports, as well as exports, of the United States and the United Kingdom. This price index for the United States is indicative of prices that under-developed countries pay for imports of manufactures from countries other than the United States. The United Kingdom import price index is correspondingly indicative of prices under-developed countries pay for such imports from countries other than the United Kingdom, including the United States.

/The United Kingdom

The United Kingdom import price index of manufactures is only little higher than its export price index of all manufactures. The United States import price index of finished manufactures is, however, substantially higher than the corresponding United States export price index. This is largely accounted for by the high price of textiles and the relatively small proportion of textiles in the United States price index. The textile price index for United Kingdom exports shown in table III-8, and the textile price indices presented in section V, are uniformly high. In the post-war period United States textile exports increased, particularly to under-developed areas formerly served by Japanese exports. They remain, nevertheless, a much smaller proportion of United States exports than they generally form of the total imports of under-developed countries. Accordingly, the 1947 price index for total manufactures imported by under-developed countries may be expected to exceed 200 by a considerable margin.

United States and United Kingdom Import Unit Values of Primary Commodities

To supplement the price quotations in the preceding section, an analysis has been undertaken of the import unit values of important primary commodities into the United States and the United Kingdom for the years 1937, 1938 and 1947. The results of this analysis are set out on the following page.

/Table III-8.

Table III-8. Import Unit Values, 1937, 1938 and 1947
(1938 = 100)

	1937	1947
FOOD		
United States:		
Sugar	119	225
Coffee	128	346
Canned beef	97	283
Tea	100	181
Bananas	97	170
Cocoa and cocoa beans	190	573
Cocoanut oil	189	554
Palm oil	115	454
Copra	184	443
Cashew nuts	114	294
Tapioca	111	421
United Kingdom:		
Oranges	89	311
Tomatoes	101	284
Butter	94	185
Eggs	94	261
Lamb	98	152
Wheat	135	286
Maize (corn)	97	352
Rice	119	488
TEXTILES		
United States:		
Raw cotton (short staple)	152	260
Raw silk	115	397
Jute	101	283
Burlap	111	358
Sisal	130	304
United Kingdom:		
Raw cotton	125	293
Wool	136	208
Flax	105	286

/METALS

Table III-8. Import Unit Values, 1937, 1938 and 1947 (continued)
(1938 = 100)

	1937	1947
METALS		
United States:		
Iron ore	96	181
Tin bars, blocks, etc.	131	189
Copper ore		219
Copper		209
Bauxite, crude	92	84
Nickel	99	120
Platinum	140	177
Manganese ore	177	144
Sodium nitrate	99	146
Asbestos	99	146
Chrome ore, or chromite	96	315
Tungsten ore and concentrates	56	93
United Kingdom:		
Lead	150	458
Zinc	162	413
OTHER PRIMARY COMMODITIES		
United States:		
Crude petroleum	106	228
Fuel oil	98	212
Gasoline	84	121
Tobacco, cigarette leaves	84	178
Tobacco, cigar leaves	96	197
Lumber logs	123	337
Hard lumber	93	157
Uncut diamonds	107	119
Industrial diamonds	115	107
Goat skins	145	292
Tung oil	97	522
Fur	87	113
Flaxseed	97	522
Bristles	122	183
Cattle hides	146	276
Linseed oil	105	513
United Kingdom:		
Raw linseed oil	114	829
Rubber	131	184
Tobacco	98	236

/These

These indices broadly confirm the preceding analysis based on price quotations. There are, however, discrepancies which illustrate the remarks below on post-war price data. Among foodstuffs, coffee, cocoa, cocoanut oil, palm oil, copra, tapioca, corn and rice are outstanding because of large price increases. The only foodstuffs which have not doubled in price -the price increase for manufactured goods - are tea, bananas, butter and lamb (the two latter indices from United Kingdom data are probably a result of bulk purchasing).

Among textiles, raw silk, sisal, burlap, flax and jute have increased more than cotton; wool has increased least. All textiles except wool are clearly above the price level of manufactured goods.

Among metals, the price increases are much smaller, except for lead, zinc and chromite. Copper, iron ore, tin and platinum have not increased more than manufactured goods; nickel, manganese ore, sodium nitrate and asbestos have increased less than manufactured goods; nickel and tungsten have actually fallen in unit value.

Among other primary commodities, the largest increases are for lumber logs, tung oil, flaxseed and linseed oil. Gasoline, diamonds, hard lumber, and furs have risen notably less than manufactured goods. Petroleum, tobacco and rubber have also not increased more than the general range of manufactured goods.

Price Relatives of Swedish Capital Goods

A special analysis has been made of 1947 prices, relative to 1938, or a number of selected Swedish capital goods, based on export unit values. The products selected are the more important capital goods items in Sweden's export trade. In the following table, the data are not given in Swedish kronor, but in terms of United States dollars, taking account of the appreciation of the Swedish kronor in terms of the United States dollar which occurred between 1938 and 1947. In this way, the figures are made comparable to the data given in the analysis of United States capital goods.

The results are presented in the following table, in which Swedish capital goods are arranged in descending order of price increases since 1938.

The average for the items of capital goods in terms of United States dollars for 1947 (1938 = 100) is 210, if the 1938 quantities are revalued at 1947 prices, and 213 if 1947 quantities are revalued at 1938 prices. The price of Swedish capital goods - like that of Swiss capital goods - has risen distinctly more than that of United States or United Kingdom capital goods.

/Table III-9

TABLE III-9. INDEX OF EXPORT UNIT VALUES OF SWEDISH CAPITAL GOODS

(United States dollar equivalent)
(1938 = 100)

	1947 price in U.S. dollars (1938 = 100) (1)	Total tonnage exported, 1947 (2)	Total tonnage exported, 1947 as per cent of 1938 (3)	Per cent of tonnage exported to under-developed countries[a] in 1938 (4)	Per cent of tonnage exported to under-developed countries[a] in 1947 (5)
Group A. Price index over 240:					
Brakes for railways and tramways	354	486		7	9
Hot-rolled steel weighting 20-60 kg.	330	3300		28	11
Tubes other than coated with paint		4775		32	11
Knives not elsewhere specified	319	176		46	75
Accummulators and parts thereof, other than alkaline elements, batteries and accummulator plates	319	2063		66	34
Wire, stripe or sections, hot-rolled not elsewhere specified	250	5188		15	18
Lathes	250	895		30	41
Vessels and ships other than private sailing boats and rowing boats.	248	128702		7	9
Transmission shafts weighing 500 kg. or less	241	3383		58	38
Wireless telephone and telegraph sets, radio magnetic and parts thereof.	241	529		75	67
Group B. Price index 200 - 240:					
Harvesters	239	1740		29	18
Hot-rolled steel other than metal-ingote	227	15965		43	31
Diesel, 25 tons and above.	219	902		36	45
Generators, 100 to 500 kg.	218	970		55	53
Mowing machines.	211	2278		27	21
Steam turbines	211	650		65	68
Generators, 3.000 kg. and above.	209	1143		52	31
Internal combustion engines, 500 to 1.500 kg.	207	568		54	52
Wire, stripe or sections, hot-rolled round; of metal-ingote.	202	13468		16	2
Dry and wet process paper and cardboard machines	201	2041		61	80
Group C. Price index 175 - 199:					
Tube blanks.	199	10502		0	2
Pig-iron	192	16395		10	9
Tractors	191	997		26	5
Cold-rolled or cold-drawn steel etc., flat 0.9 mm and over	185	3597		11	21
Machinery, not elsewhere mentioned, for other purposes than leather or textile industry or pottery.	185	3656		55	33
Pumps.	183	614		33	39
Drills, screw drivers etc.	182	585		27	45
Cold-rolled or cold-drawn steel etc., flat 0.4 to 0.9 mm	180	2423		18	20
Diesel, 5 to 25 tons	180	902		39	30
Metal working machines for grinding.	177	560		22	38
Telegraph and telephone apparatus.	177	976		72	77
Group D. Price index under 175:					
Internal combustion and Diesel engines, 500 kg. and less	170	605		32	52
Cold-rolled and cold-drawn steel etc., flat less than 0.4 mm	165	3528		4	19
Saws and saw blades not elsewhere specified.	165	1248		25	29
Water turbines	161	670		14	27
Car parts not elsewhere specified.	159	518		55	53
Ferro-chrome	143	3707		5	1
Ferro-wolfram.	141	1040		22	28
Billets, etc.	119	1092		16	17

a/ For the purposes of this table, under-developed countries include eastern Europe (excluding USSR and Czechoslovakia), Greece and Turkey, the Middle East, Far East, Africa and Latin America.

/Column 3

Column 3 shows that there have been considerable shifts in the composition of Swedish exports of capital goods between 1938 and 1947. Exports of non-ferrous metals and manufactures, tool steel, hot-rolled steel, steel wire, tubes and generators have declined heavily. On the other hand, there has been a large increase in the export of knives, saws and saw blades, harvesters, tractors, general machinery, accumulators, magnetic radio sets and brakes for railways and tramways. In general, there has been a shift from steel mill products towards machinery, apparatus and transport equipment.

The price index for any individual item in the list may be seriously affected by a change in the composition of goods within the class,[1/] exported in the two years. Nevertheless, the table confirms the conclusion that, while there has been a good deal of divergence in price changes, the degree of dispersion among the price indices for capital goods is considerably less than that for price changes of primary materials. Using the difference between the upper quartile and the lower quartile, expressed as a percentage of the lower quartile, as a statistical measure of dispersion, we find that while among the price indices for Swedish capital goods the index of dispersion is only thirty-six per cent, the corresponding index for the primary goods in table III-4 is seventy-seven per cent. The capital goods which have increased in price conspicuously more than the general average are brakes for railways and tramways, hot-rolled steel and uncoated steel tubes. The capital goods which have increased least in price are steel billets, ferro-wolfram manufactures and ferro-chrome manufactures.[2/]

1/ There is obviously much more latitude for such change in a comprehensive class, like vessels or machinery not elsewhere classified, than in a class like pig-iron or wolfram.

2/ The fact that primary goods prices have become more dispersed than those of manufactures is also apparent from the data on Latin American terms of trade prepared by the secretariat of the International Monetary Fund. Taking 1946 in relation to 1938, the average deviation of thirteen Latin American export price indices was 14.8 per cent of their average; that of the corresponding import prices was only 9.9 per cent. The range of the index for exported food was from 194 to 733, that of exported minerals from 115 to 370; whilst that of imported textiles varied only from 220 to 344; imported durable consumer goods from 148 to 203; and imported machinery and equipment from 132 to 170.

/Among the items

Among the items for which exports to under-developed countries were important in value in 1947, the price index increased less than the average for the following:

Wolfram, steel billets, cold-rolled or cold-drawn steel flat, internal combustion engines, water turbines, machinery not elsewhere classified and motor car parts.

The more important categories of capital goods for which the price index increased more than the average were:

hot-rolled steel, steel wire, steel tubes, knives, lathes, wireless sets and parts, larger Diesel engines, generators, steam turbines, transmission shafts, brakes for railways and tramways, accumulators and vessels and ships.

The average price index is substantially the same for exports to industrialized countries and exports to under-developed countries, as the following shows:

Table III-10. Index of Export Unit Values of thirty-nine Items of Swedish Capital Goods, 1947
(United States dollar equivalent)
(1938 = 100)

	1938 weighting	1947 weighting
All countries	210	213
Under-developed countries	221	183

On the basis of 1938 weights, the price indexes for industrialized and under-developed countries show little difference. Between 1938 and 1947 there was a shift in the composition of exports of Swedish capital goods to under-developed countries towards those items which had increased less in price than the average, without a corresponding development in the exports to the industrialized countries. For this reason the index based upon 1947 weights is somewhat lower for the under-developed countries than for the industrialized countries. The divergences thus reflect a change in the composition of goods, rather than differences in prices paid by under-developed and industrial countries for the same type of goods.

/The price change

The price change of Swedish capital goods has also been separately analysed for the various under-developed areas, with the following result:

(United States dollar equivalent)

	1938 weighting	1947 weighting
Eastern Europe[a/]	239	211
Greece and Turkey	291	235
Middle East	205	199
Far East	207	152
Africa	175	177
Latin America	204	171
All under-developed countries	221	183

a/ Excluding the Union of Soviet Socialist Republics and Czechoslovakia.

The differences among the various under-developed areas, and the shifts in the two indices according to weighting methods used, are due to considerable differences in composition.

The figures for the Middle East are based on extremely small quantities, and include only eleven items of capital goods. The figures for Greece and Turkey include twenty capital goods items. In the case of the other areas, the coverage is broader.

Among Swedish exports to eastern Europe, telegraph and telephone apparatus, ferro-wolfram manufactures and hot-rolled steel, other than ingot metal, were the three most important items in 1938, but the first was replaced by wireless, telephone and telegraph sets and the third, by vessels and ships in 1947. In the case of Greece and Turkey, the most important items in 1938 was general machinery and telegraph and telephone apparatus, accounting together for over half the total value. In 1947, telephone and telegraph apparatus alone accounted for two-thirds of the total. In exports to the Middle East, telegraph and telephone apparatus was the most important item in 1938 (about forty per cent of the total) with small Diesel engines and car parts following; in 1947, wireless, telephone and telegraph sets accounted for over fifty per cent of the total. In exports to the Far East, hot-rolled steel was by far the most important item in 1938, followed by steam turbines; in 1947, steam turbines had become more important than hot-rolled steel. The main sales to Africa in 1938 were hot-rolled steel, accounting for over fifty per cent of the total; in 1947 vessels and ships, drills and screw-drivers and general machinery had become the most important items.

/In

In Latin America, the main items in 1938 were telegraph and telephone apparatus (over thirty per cent of the total) and vessels and ships and hot-rolled steel came next; in 1947, telegraph and telephone apparatus remained the most important items (over one-third of the total), with vessels and ships and general machinery next. These shifts help to explain the divergence in the various price indices.

IV. ANALYSIS OF PRICE RELATIONS IN TRADE STATISTICS OF INDUSTRIAL COUNTRIES

This section presents and analyses price indices derived from the trade statistics of France, Switzerland, the United Kingdom and the United States, particularly in their bearing upon the prices of manufactured and capital goods relative to prices of primary products.

The trade of these countries includes trade with industrial as well as under-developed countries. In fact, the former is generally the larger. The indices are not, therefore, direct measures of relative prices in the trade between the industrialized countries and under-developed countries. Relative prices in the trade of the industrialized countries with the under-developed countries may differ from the indices presented here, because the composition of trade with the under-developed countries differs from the composition of trade with the other industrial countries, or the total trade in any major class of goods; or because, in a given period, the prices - relative to those of another period - paid and received by under-developed countries in their trade with the industrial country may differ from the prices paid and received for the same or similar types of goods in the trade with other industrial countries.

Such differences would, of course, be reflected in a comparison of the indices presented in this section with indices for the trade between industrial countries and under-developed countries, individually or by areas. This comparison is available in the case of the United Kingdom and the United States; case analyses of the trade of each of these countries with selected under-developed countries, presented in section V of this report, confirm the general findings noted in this section.[1/]

The differences between the composition of the aggregate trade of the industrial countries and the composition of their trade with under-developed countries can be taken into account, to some extent, by comparison of relative price indices for specific classes of goods which are especially important in the trade of the under-developed countries. This is the main focus of the analysis of this section.

The indices presented in this section are based upon the trade statistics of the given industrial countries. They are, therefore, in all cases, unit value indices.

1/ In the case of Sweden, indices of capital goods prices also have been obtained by geographic areas; area comparisons have been considered in section III of this report.

/The export price

The export price indices are uniformly based upon exports valued f.o.b. and therefore represent export prices of the goods at the port of exit; they do not incorporate charges arising out of transport. Imports, on the other hand, are generally valued c.i.f. and therefore include charges arising out of transport to the destination. The French, Swiss and United Kingdom indices are based on such valuations. The import price indices thus incorporate changes in charges arising out of transport, which may have been larger or smaller than the changes in the price of the goods. Import price indices are affected appreciably by this factor only when the difference between price changes and changes in the charges arising out of transport are substantial and when, in addition, the importance of transport charges is sufficient to affect the import price indices appreciably, i.e. if they represent a large proportion of the total delivered cost of the particular product. (On the average, such charges were about 10 per cent of the total value of world imports in the prewar years). The United States trade statistics value imports, as well as exports, f.o.b. In this case, therefore, the import and export price indices are direct comparisons of prices of the goods themselves and charges arising out of transport do not enter as a factor in the comparison.

A. United States Trade Statistics

The United States was one of the major trading countries of the world; in the post-war period it has become the major trading country in the world. It is one of the main buyers of primary materials from the under-developed countries and the main supplier of capital goods and other manufactured goods to them. The price relationships among the goods entering into the trade between the United States and under-developed countries therefore have considerable weight in determining the terms on which the latter exchange goods in their international trade. Price relationships among the different classes of goods comprised in the international trade of the United States should also be an important indicator of price relations in the exchange of corresponding goods among other countries.

In assessing the price indices derived from United States trade statistics, attention should be drawn to two technical characteristics of the data:

(a) The United States import values, as distinguished from the practice of most other countries, are computed on an f.o.b. basis, that is, exclusive of costs of transportation, insurance and other expenses arising in carrying the imported goods from the country of consignment to the United States. For the present study this is an advantage, since receipts for such items do not normally go to under-developed countries; hence, the United States figures are not affected by changes in the costs of transportation and shipping. United States exports, following the universal practice, are valued as at the United States port of exit, that is, they exclude all shipping charges, etc., which normally have to be paid by the under-developed country to which goods are consigned. A comparison of the United States import price indices with export price indices is therefore a direct comparison of prices received by the sellers of the goods and charges arising out of transportation do not affect either of the indices. Import price indices for other countries generally include the charges arising out of transportation; export price indices do not.

(b) The United States price indices are derived by the so-called "ideal formula". Under this formula the weighting system is a geometric mean of the base period weighted index and the given year weighted index. Since the official United States data available for this analysis are based upon this weighting system, the indices computed for this study were derived on the same basis, in order to assure statistical comparability throughout.

The following table shows the changes in the total United States terms of trade:

/Total United

Total United States Terms of Trade

(1938 = 100)

	1937	1946 First Half	1946 Second Half	1947 First Half	1947 Second Half	1948 First
U.S. import unit value	111	170	189	216	220	240
U.S. export unit value	108	156	171	191	203	211
Terms of trade (for non-U.S. countries)	103	109	111	113	108	110

The table shows that for total United States trade, terms of trade during the post-war period were about 10 per cent more favourable to the countries trading with the United States than in 1938. It will also be seen that overall United States terms of trade changed very little between 1937 and 1938. The corresponding index for overall United States terms of trade on a 1938 basis is 129 for 1913 and 126 for the period 1926-30; so that rather half of the ground list between 1913 and 1938 by the trade partners outside the United States had been recovered in 1947.

The composition of United States imports and exports by major classes of products is shown in appendix A. Among the United States imports, those from under-developed countries are, of course, largely in the classifications "Crude materials" and "Crude foodstuffs". The composition of United States exports to under-developed countries, presented in Appendix B, also differs from the composition of total United States exports, though not so much so as in the case of imports. United States food and crude materials account for a much smaller proportion of exports to under-developed countries than of exports to industrial countries; in the case of manufactures, the reverse is true, particularly for the important sub-class of machinery and vehicles. Accordingly, the terms of trade between the United States and under-developed countries may be considerably different from total United States terms of trade.[1/]

The United States data are therefore particularly useful for comparison of price indices of different classes of goods important in United States trade with under-developed countries, or in the trade of under-developed countries generally. Price indices for major groupings of United States imports and exports are shown below.

1/ Case analyses of United States trade with selected under-developed countries are covered in section V of this report. Price relations between United States imports of primary goods and United States exports of capital goods in trade with the selected countries are covered below in this section.

/Table IV - 1

Table IV-1. United States Import and Export Prices
by Groups of Commodities
(1938 = 100)

	1937	1946		1947		1948
		First Half	Second Half	First Half	Second Half	First Half
United States import unit value:						
Crude materials	119	169	175	190	181	205
Crude foodstuffs	124	222	267	331	346	372
Manufactured foodstuffs (including beverages)	115	179	191	228	228	235
Semi-manufactures	110	145	165	190	201	218
Finished manufactures	93	173	197	223	242	251
Total United States imports	111	170	189	216	220	240
United States export unit value:						
Crude materials	113	170	194	219	228	251
Crude foodstuffs	123	221	250	246	288	302
Manufactured foodstuffs (including beverages)	116	181	212	238	241	247
Semi-manufactures	114	132	142	170	182	193
Finished manufactures	101	150	159	177	188	193
Total United States exports	108	156	171	191	203	211

From the standpoint of under-developed countries, the important categories are crude materials and foodstuff imports; and exports of manufactures. The outstanding fact in the table is the large increase in the average price of crude foodstuffs during the post-war period, as compared with pre-war; more than a two-fold increase by the first half of 1946 compared with 1938, and a further continuing increase to 3.72 times the 1938 level by the first half of 1948. Crude material prices, on the other hand, increased very much less than foodstuffs, and even lagged behind the average of all imports throughout the post-war period.

Among the categories of manufactures exported, average prices of manufactured foods have been higher, relative to pre-war prices,

/than the average

than the average for all exports throughout the post-war period; semi-manufactures and finished manufactures lagged behind the average throughout. Of the latter two, finished manufactures are by far the more important and a combined index of the two classes would differ little from the index for finished manufactures, particularly for 1947 and 1948.

If 1937, rather than 1938, had been used as a base, the post-war indices for crude material imports would be reduced by about one-sixth and for crude foodstuff imports by about one-fifth. The export price indices for finished manufactures, on the other hand, would remain practically unchanged. Therefore the ratio of import prices of primary commodities to export prices of finished manufactures would be considerably lower on a 1937 base than on a 1938 base.

Table IV-2 presents price relations for the suppliers of crude materials and crude foodstuffs imported into the United States, in relation to various categories of exports by the United States. These price relations are measured by dividing the indicated United States import price index by the indicated United States export price index on the 1938 base and multiplying the ratio by 100. When the result is more than 100, it is favourable as compared with 1938, to the countries from which the United States imports crude materials or foodstuffs. The price relation for 1937 as compared with 1938 is also shown in the table. Where the result in the post-war period is higher than the figure for 1937, the change is also more favourable than in 1937, to the country from which the United States imports crude materials or foodstuffs.

/Table IV-2

Table IV-2. Changes in Price Relations of Crude Materials and Foodstuffs to United States Exports

	1937	1946		1947		1948
		1st Half	2nd Half	1st Half	2nd Half	1st Half
A. To Total United States Exports: (1938 = 100)						
(1) Suppliers of crude materials	108	108	102	99	89	97
(2) Suppliers of crude foodstuffs	115	142	156	174	170	176
(3) Suppliers of (1) and (2)	113	120	121	124	115	127
B. To United States exports of finished manufactures						
(1) Suppliers of crude materials	117	113	110	107	96	107
(2) Suppliers of crude foodstuffs	123	148	168	187	184	193
(3) Suppliers of (1) and (2)	121	125	129	134	125	138
C. To United States exported manufactured food						
(1) Suppliers of crude materials	97	93	82	80	70	83
(2) Suppliers of crude foodstuffs	105	123	126	139	143	150
(3) Suppliers of (1) and (2)	104	104	98	100	98	109

Suppliers of foodstuffs were able to obtain over 70 per cent more of the composite total United States exports in 1947 and 1948 than in 1938 for a given quantity of their exports; and an even larger quantity of United States exports of finished manufactures other than food manufactures - over 90 per cent more in 1948 than in 1938. The improvement in the price position of crude foodstuff suppliers was much less as compared with the 1937 price position, but nonetheless very substantial. The foodstuff imports, on the average, bought 57 per cent more of the finished manufactures in 1948 than in 1937.

Suppliers of crude materials, on the other hand, obtained little more of the finished manufactures during the post-war period, compared with 1938, for a given quantity of their supplies. They obtained less throughout the post-war period than in 1937. The ratio of United States import prices of crude materials to export prices of finished manufactures was 17 per cent higher in 1937 than in 1938, but not so much higher, compared with 1938, after the beginning of 1946.

/United States

United States exports of manufactured foods are a considerable part of the imports of some under-developed countries. The measures of price relations in the third part of table IV-2 are, therefore, of some significance. The suppliers of crude foodstuffs to the United States in exchange for United States manufactured foodstuffs had, on the average, improved their price position by 50 per cent by the first half of 1948, compared with 1938. The price position in the trade of crude materials for manufactured foods, however, deteriorated considerably over the same period.

On the evidence of the analysis of United States trade statistics thus far presented, the general conclusion is that the price position of primary producers exporting to the United States is considerably more favourable than in 1938 and in 1937 and is almost half-way back to the 1913 price relation in the purchasing power of total United States imports; primary producers have come even closer to the 1913 price relation in relation to United States finished manufactures.

There is, however, reason to believe that this represents an over-optimistic assessment of present price relations from the point of view of primary producers in under-developed countries. None of the evidence elsewhere in this report, whether drawn from the trade statistics of other industrialized countries, price quotations or trade statistics of under-developed countries themselves, suggests that the recovery in relation to finished manufactures is as marked as the United States figures suggest.

Two major factors account for this discrepancy and induce great caution in interpreting results so far obtained:

(a) The United States position, as is evident from the preceding tabulation, is characterized by extreme discrepancy between the prices of imported crude food and of other primary materials. There is reason to believe that the prices for imported food paid by the United States are higher than those obtained by food producers in under-developed countries in general. This is borne out by a comparison of the price index of crude food imports into the United States for 1947 (338 with 1938 as the base) with the index for food in general obtained in section III of this report (296 in 1947 with 1938 as the base). An explanation of this discrepancy is the fact that the imports of crude food into the United States consist predominantly of coffee. Coffee, as indicated in section III of this report, has risen in price in an exceptionally marked degree. Hence the prices paid by the United States for crude food imports cannot be taken as representative

/for those obtained

for those obtained by food producers in general. On the other hand, the imports of crude materials are much more widely spread and more representative of general prices paid to their producers. For these it is seen that the position is, if anything, less favourable than to that of 1937 and that there has been no return to earlier and more favourable price relations.

(b) It may be noted from the preceding table that the price relation to manufactured goods would be much less favourable in terms of United States imports[1/] of finished manufactures. Our analysis has been conducted in terms of cheaper United States manufactures. In the first approach, we may assume that the higher prices for United States imports of finished manufactures paid by the United States will also reflect higher prices paid by under-developed countries for finished manufactures from sources of supply outside the United States. If this assumption is justified, the following computation may be made:

> The prices of United States exports of finished manufactures and of United States imports of finished manufactures are combined, assigning the United States manufactures a weight of two-thirds of the total and those of non-United States manufactures a weight of one-third of the total. This tentative allocation may reflect the present importance of the two types of manufactured goods to under-developed countries. The results of this computation are as follows:

Change in Price Relations of United States imports of Primary Goods and Finished Manufactures

(1938 = 100)

	1937	1946		1947		1948
		First Half	Second Half	First Half	Second Half	First Half
A. Primary goods in terms of U.S. exported manufactures	121	124	126	133	125	134
B. Primary goods in terms of U.S. imports of manufactures	132	108	102	105	97	103
A and B. combined	125	119	118	124	116	124

1/ See above, section III, on the higher prices of Swedish and Swiss capital goods.

/It will be seen

It will be seen that on this basis, the 1937 price relation has barely been restored, even though the United States import price figures for crude foodstuff are overstated as a result of the preponderance of coffee.

The combination of finished manufactures imported into the United States contains a higher proportion of textiles and chemicals than those of United States exported manufactures. Since all the data contained in this report tend to show that these two constituents have increased in price more than capital goods in general, it is likely that the combination of United States imported manufactures with a larger proportion of textiles and chemicals is more representative of under-developed countries than that of United States exported manufactures.

Price relations of primary imports and capital exports

Machinery, metal manufactures and chemicals are the most important for under-developed countries, among the types of product included in the total of finished manufactures. Table IV-3 presents export price indices relative to 1938 for machinery, for metals and their manufactures and for chemicals that are generally used for production, as distinguished from personal consumption. The composite is thus broadly representative of capital goods exports. The analysis has been based on all relevant items in the United States trade returns for which identical classifications were obtainable for 1938 and 1947. This excludes textile machinery, which has increased in price more than most other types, as is evident from the data collected for the studies of selected countries.

/Table IV-3

Table IV-3. Price Indices, United States Exports of Capital Goods[a/] 1947
(1938 = 100)

Metals and manufactures		173
Steel mill products	172	
Iron and steel manufactures	145	
Ferro-alloys	136	
Aluminum and manufactures	137	
Copper brass and bronze manufactures	205	
Lead and zinc manufactures	210	
Other non-ferrous ores, metals	187	
Machinery		167
Electrical machinery and apparatus	159	
Engines, turbines and parts	272	
Construction and conveying machinery	125	
Mining, well and pumping machinery	126	
Metal-working machinery	135	
Office appliances and printing machinery	150	
Agricultural machinery	140	
Chemicals and related products		213
Coal-tar products	206	
Chemical specialties	161	
Industrial chemicals	282	
Pigments, paints and varnishes	170	
Fertilizers and fertilizer materials	210	
Explosives, etc.	146	
Total, above classes		179

a/ For a list of the goods included, see appendix C.

The export price index for the aggregate of these classes was 179 in 1947, relative to 1938, barely less than the corresponding price index for all the finished manufactures. As related to the price indices for United States imports of crude materials and foodstuffs, the result is thus practically identical for the above aggregate of capital goods and for all finished manufactures. The price relations are, however, different for chemicals and for machinery and metal manufactures, as the following table shows:

/Table IV-4.

Table IV-4. Price Relation of Primary Imports to Capital Exports, 1947
(1938 = 100)

	Crude materials	Crude foodstuffs
Metals and manufactures	107	195
Machinery	111	202
Chemicals	87	158
Total	103	188

The export price of United States capital goods for 1947 compared with 1938, as shown in Table IV-3 may be compared with the price quotations of primary goods, and of classes thereof, contained in section III. A comparison will show that, of the twenty sub-groups, only one - industrial chemicals - had risen more than the general average of all primary commodities; another sub-group - engine turbines and parts - had risen almost as much; the other eighteen sub-groups had increased less than the average. Prices of food, vegetable oils and textile materials had risen more than any of the twenty sub-groups. Non-food primary commodities, however, had risen less than industrial chemicals or turbines, etc., and the increase in minerals alone was less than in six sub-groups (copper manufacturers, lead and zinc manufactures, engines and turbines, coal-tar products, industrial chemicals and fertilizers); it was also less than the whole class of chemicals and related products.

Moreover, taking primary goods on a 1937 instead of a 1938 basis (the prices of United States capital goods would be little affected by such shifting of the base year), the general average for all primary goods is higher than all but two of the sub-groups; the same is true of the index of food and textile materials. Vegetable oils, however, still exceed any of the United States capital goods groups. Non-food primary goods generally are exceeded by six of the twenty sub-groups of capital goods, and by the whole class of chemicals and related products. Minerals alone are exceeded by nine sub-groups, by all three classes and by the general index as well.

Price relations of war-time imports and post-war exports

During the war period, many under-developed countries maintained substantial export balances, supplying their allies with essential primary goods and deferring the purchase of capital goods which were then also essential to the prosectuion of the allied war effort. A number of these under-developed countries developed an import balance during the post-war period, paying for the trade balance deficit out of

the foreign exchange reserves accumulated during the war. To this extent, the under-developed countries were paying for imports at post-war prices by exports at war-time prices. The price relations for such exchange of goods with the United States is as follows:

(1938 = 100)

United States Imported total primary goods, 1940-45	147
United States Imported crude materials, 1940-45 average	144
United States Imported crude foodstuffs, 1940-45 average	151
United States Exported finished manufactures, 1945-1948 average[a/]	173

Price Relations to Post-War United States Exported Finished Manufactures (War-Time Imports)

Total primary goods	85
Crude materials	83
Crude foodstuffs	87

a/ To June 1948.

Thus it will be seen that in so far as such delayed imports are concerned, the terms of trade were generally unfavourable to primary producers. On the strength of 1947 data, this would apply to United States capital goods, as well as to the United States finished manufactures generally, although in a lesser degree.

Summary

The analysis of United States trade statistics may be summarized as follows:

(a) In terms of United States exported finished manufactures, the 1913 or 1926-30 price relations of primary producers exporting to the United States have nearly been re-established. The situation is much more favourable to primary producers than at any time during the 1930's.

(b) This improvement is, however, almost entirely due to high food prices. For non-food primary articles, only a small proportion (about one-fifth) of the deterioration since 1913 or 1926-1930 has been restored.

(c) Similarly, in terms of non-United States finished manufactures, of the composition imported into the United States - with its relatively high proportion of textiles and chemicals and low proportion of steel mill products - primary producers had hardly increased the 1938 price relation. Far from re-establishing the 1913 or 1926-1930 relations, prices were decidedly less favourable

/even

even than in 1937. The lower proportion of capital goods, and the higher proportion of textiles and chemicals in imports, is more typical - although for different reasons than apply to the United States - of the total imports of the less developed countries.

(d) The United States data make the position of primary producers appear more favourable than it really is. Because of the concentration on imports of coffee, the United States import price index of crude food is considerably higher than the prices generally obtained by food exporters in under-developed countries.

B. United Kingdom Trade Statistics

United Kingdom trade is perhaps more representative of trade relations between industrial and under-developed countries than others. Imports into the United Kingdom consist largely of primary goods and exports, largely of manufactured goods. Also, both imports and exports are sent throughout the world, although there is a tendency to concentrate on Empire trade.

United Kingdom terms of trade figures are available on two bases. Indices of average values of exports and imports and of their classes are currently published by the Board of Trade, on the basis of fixed pre-war weights. An index of export and import prices, based on quantities in the export programme slightly in advance of the current period, is also computed. In general, the present analysis has been based on the latter index whenever possible since it is a more satisfactory price index. It cannot be carried back, however, before 1938; for that purpose, the former index has to be used or the two indices combined.

Overall figures for United Kingdom terms of trade are shown in the following table:

(1938 - 100)

	1937	1946	1947	1948 first half
(1) United Kingdom Import prices	106	211	259	276
(2) United Kingdom Export prices	98	195	223	243
(3) Terms of trade [a/]	108	108	116	114

a/ Item (1) divided by item (2), multiplied by 100.

The index of import and export prices, based on current export programmes shows a smaller rise, from the point of view of suppliers, for 1947 (108, compared with 116), but a very similar figure for the first half of 1948 (112, compared with 114).

In the case of the United Kingdom, there was considerably less difference in terms of trade between 1937 and 1938. Between these two years, the import unit value index of imported food, etc. fell only one per cent, the import unit value of imported raw materials fell 12 per cent, and the combined index of both fell 5 per cent. On the other hand, the unit price of exported United Kingdom manufactures increased 3 per cent between the two years, so that there was a net deterioration in price relations for primary producers of 8 per cent. This compares with a deterioration between the two years of 18 per cent for primary producers in United States trade. Hence, even the aggregate, including a heavy proportion of exported textile

/manufactures,

manufactures, still indicates a slight improvement in the position of primary material producers compared with 1937.

Unit values of aggregates of primary materials and manufactured goods, respectively, can also be derived from United Kingdom trade statistics, although the grouping is a little different from that of the major economic classes distinguished in the United States trade statistics. The main results obtained from overall figures derived from United Kingdom trade statistics are as follows:

Table IV - 5. Price Indices (Unit Values) in United Kingdom Trade

United Kingdom Import Prices

	1947 First half	1947 Second half	1948 First half
Raw materials and articles mainly unmanufactured	259	291	329
Food, drink and tobacco	234	244	257
Primary commodities: (Raw materials and articles mainly unmanufactured and food, drink and tobacco combined.)	242	260	281
United Kingdom Price Indices of Articles Wholly or Mainly Manufactured			
Articles wholly or mainly manufactured	222	240	249
Terms of trade for primary producers (ratio of index of raw materials and articles, mainly unmanufactured, and food, drink and tobacco imported into the United Kingdom to United Kingdom articles wholly or mainly manufactured	109	108	113

The rise over 1938 in the price ratio of imported primary commodities compared with exported manufactured goods is considerably less than is shown in the case of the United States (13 per cent, compared with 38 per cent). In addition to the high proportion of coffee in United States food imports and United Kingdom bulk buying, which have been mentioned before, this difference is largely due to the high proportion of textiles in the United Kingdom exports of manufactures, as shown by the following table:

/Unit value of

(1938 = 100)

	1947 First half	1947 Second half	1948 First half
Unit value of United Kingdom imported raw materials and articles, mainly unmanufactured, and food, drink and tobacco combined	242	260	281
United Kingdom export prices of textile manufactures	292	316	332
Terms of trade (ratio of raw materials and food import prices combined, to export prices of textile manufactures)	83	82	85
Unit value of United Kingdom imported raw materials and articles, mainly unmanufactured, and food, drink and tobacco combined	242	260	281
United Kingdom export price index of metal goods (including machinery)	202	217	225
Terms of trade (ratio of imported raw materials and food prices to export prices of metal goods) a/	120	120	125
Unit value of United Kingdom imported raw materials and articles, mainly unmanufactured, and food, drink and tobacco combined	242	260	281
United Kingdom export prices of manufactured articles other than metal goods and textiles	216	234	241
Terms of trade (ratio of United Kingdom import prices of raw materials and food to United Kingdom export prices of manufactures other than metal manufactures and textiles	112	110	116

a/ Metal goods in the United Kingdom classification include all machinery and vehicles.

/The above

The above figures clearly show the exceptional position of textiles. In terms of buying power of textiles manufactures, the position of primary producers is now worse than it was in 1938. This has had a considerable influence on the overall index of United Kingdom export prices.

In the crucial category of metal goods, the improvement in the price relation of primary products, although still less than in the United States statistics, is increased by 25 per cent. Manufactures other than metal or textiles occupy an intermediate position.

It should be stressed, however, that the United Kingdom data are based on the post-war composition of United Kingdom exports, when the volume of highly priced textile manufactures was much reduced while that of lower priced capital goods was expanded. During the first half of 1948, when the volume of all United Kingdom exports was 130 (1938 = 100), that of electrical goods and apparatus was 209, machinery 186, chemicals 153 and vehicles 254; but the index for cotton manufactures was 55 and for woollen manufactures, 120. It follows that an overall index, based on pre-war composition, would be substantially less favourable to primary exporters to the United Kingdom. On the basis of the post-war composition of United Kingdom exports, however, their position was decidedly better than it was in 1938; there was a tendency for the improvement to increase progressively during the post-war period.

Food and primary materials

The following table shows price relations separately for suppliers of raw materials and of food, drink and tobacco.

Table IV - 6. Purchasing Power of United Kingdom Exports of Manufactures

(1938 = 100)

	Imported raw Materials	Imported Food, Etc.
1937	115	105
1938	100	100
1947: First half	117	105
Second half	121	102
1948: First half	132	103

The price position of suppliers of primary materials has almost returned to the 1929 level (which is still much below the 1913 figure); the position of the food suppliers has hardly improved. The latter figure, however, is not representative if applied to food suppliers outside the British Dominions and colonies. The United Kingdom has been purchasing much of its food under bulk sale contracts considerably below market prices.[1]

1/ There are at present some forty long-term contracts in existence; the great majority of them relate to food.

Price relations between primary product imports and exports of manufactures, as reflected in post-war United Kingdom trade statistics, are thus seriously affected by this factor.

The general effect is that the post-war price position of primary goods in the aggregate and of foods, specifically, is considerably better than that reflected in the United Kingdom trade statistics. In particular, in appraising the analysis of United Kingdom trade with particular countries, it is necessary to distinguish suppliers of food purchased by the United Kingdom under the bulk-sale arrangements, from others. Data on United Kingdom trade with selected under-developed countries in 1946, the latest year for which the data have thus far been available in the detail appropriate for such analysis, are presented in section V of this report and the appended statistical tables. Other data for the year 1947 also reflect the effect of bulk-sale arrangements on terms of trade with the United Kingdom.

These data have been made available through the courtesy of the British Board of Trade; they make it possible to present separately the figures relating to relative export and import prices for the United States, Canada, Australia and South Africa on the one hand and, on the other hand, for a group of under-developed countries comprising Argentina, Bolivia, Brazil, Ceylon, Chile, Cuba, Dominican Republic, India and Pakistan, Peru, the Netherlands West Indies, Southern Rhodesia, Uruguay and Venezuela. The combined index for the under-developed countries contained in the second group has been computed by the Secretariat by revaluing their respective exports and imports to the United Kingdom in 1947 at 1938 prices. The result of this analysis is as follows:

Table IV-7. United Kingdom Terms of Trade with certain countries
1938-1947
(1938 = 100)

Countries	Average import Value (1)	Average export Value (2)	Terms of Trade (Ratio of 1 ÷ 2 x 100) (3)
United States	267	216	124
Canada	240	240	100
Australia	220	237	93
South Africa	248	227	109
Under-developed countries: Argentina, Bolivia, Brazil, Ceylon, Chile, Cuba, Dominican Republic, India, Pakistan, Peru, Netherlands West Indies, Southern Rhodesia, Uruguay and Venezuela	293	212	138
All countries	258	223	116

/The table

The table shows very clearly, that the position of the under-developed countries listed above has improved considerably more than the overall United Kingdom figures suggest. Even though British imports from Canada, Australia and South Africa consist largely of primary commodities, British terms of trade with these countries have either deteriorated considerably less (as in the case of South Africa), remained unchanged (as in the case of Canada) or even improved (as in the case of Australia). As can be seen from the table this is mainly owing to lower import prices paid to these countries (older Dominions 220 to 248, other under-developed countries 293); and also secondarily to higher United Kingdom export prices obtained in the Dominions (older Dominions 227 to 240; other under-developed countries 212). The United States is intermediate between the Dominions and the other under-developed countries for import prices paid by the United Kingdom but export prices obtained by the United Kingdom in the United States are low relative to 1938 and roughly the same as those obtained in under-developed countries. It should be stressed from the method of compiling these figures, that such differences are due to differences in composition, not to different prices charged for identical products.

In terms of United States dollars, the 1947 export price index of the listed under-developed countries to the United Kingdom was 244 (1938 = 100), and their import price index from the United Kingdom was 177. The first figure agrees with the average market quotations of primary commodities contained in section III and the United States import price index for primary commodities of 235. The United Kingdom export price index of 177 compares with a United States index of manufactured goods of 183.

In the light of this evidence, the position of the under-developed exportors of primary articles (including India and Pakistan) in trade with the United Kingdom, outside the old British Dominions and the United States, has improved by 38 per cent since 1938, relative to the export prices for British manufactures paid by them (including the highly priced textile manufactures). This brings the result obtained from the analysis of United Kingdom trade statistics substantially into line with results obtained from United States trade statistics, from which the conclusion was reached that the position of primary producers outside the United States has improved by 34 per cent compared with 1938 as measured by the quantum of United States finished manufactures obtainable for a fixed quantum of primary goods sent to the United States.

The above data also indicate an improvement over the inter-war years, as shown in the following table.

/Table IV-8

Table IV-8. United Kingdom Ratio of Import to Export Prices
(1938 = 100)

1913	143
1924	122
1929	122
1935	103
1936	107
1937	107
1938	100
1939 (Jan.-June)	105

The comparable 1947 index for the group of under-developed countries was 138.[1/]

In this computation, the position of foreign primary exporters to the United Kingdom was more favourable in 1947 than in 1924 or 1929. It will be seen that in 1947 the improvement for the foreign primary producers (other than British Dominions or colonies) contained in the above analysis in their trade with the United Kingdom had almost restored the price relation of 1913. It should be stressed, however, that this almost certainly overstates the position for primary producers in general and for primary producers in all under-developed areas. The result is also conditional upon the 1947 composition of United Kingdom exports; cheaper capital goods were much increased above pre-war levels and textile manufactures were much reduced below them.

Export and import prices obtained by, and paid to, primary producers in British colonies are not included in the above calculation, but it is likely that their position resembled that of the British Dominions more than that of the under-developed countries included in the analysis. The under-developed countries not covered by the analysis also have probably not experienced favourable shifts in price relations to the same degree.

The above analysis is based on the composition of trade in 1947. It is pointed out that "exports were re-valued at 1938 average values by broad groups, applying the group average value index for exports to all destinations to the group totals for the individual countries". It is further stated that "apart from the fact that different prices may be charged for the same goods in different markets, this method may also lead to error if the composition of any group for a particular country differs from the composition of the group for exports to all countries, and if there have been divergent price movements within the group".

1/ Index of price of imports from, and exports to, the listed under-developed countries only.

/The favourable shifts

The favourable shifts were unequally shared by the various individual under-developed countries, as follows:

Table IV-9. Export-Import Price Relation in Trade with the United Kingdom, 1947

	(1938 = 100)	Trade with the United Kingdom, 1947 (millions of pounds)
Argentina	148	165
Brazil	135	41
Other Latin American countries	166	115
Netherlands West Indies	102	38
India and Pakistan	132	186
Ceylon	103	34
Southern Rhodesia	116	17

Among other Latin American countries, the main improvements are shown by Cuba and the Dominican Republic (mainly food exporters). Bolivia and Venezuela, like the Netherlands West Indies, have improved their price relation little, if at all, compared with 1938. Chile and Uruguay show modest improvement (about ten per cent), Peru somewhat more marked (forty per cent). The overall figure for other Latin American countries is comparatively favourable because of the predominance of Cuban products in United Kingdom imports; Cuba supplies fifty per cent of the United Kingdom imports for the total group. Outside of Latin America, the improvement is much more modest.

More recently, prices of important foods have receded from the levels of late 1947 and early 1948. Bulk sale contract terms coming into effect between the United Kingdom and other Commonwealth countries also provide for higher prices. The gap between market prices and prices paid by the United Kingdom for food imports from these sources will, therefore, be reduced in the period ahead.

Import prices of non-United Kingdom manufactures.

The United Kingdom data indicate that the average import price of manufactures imported into the United Kingdom (i.e. non-United Kingdom manufactures with a heavy proportion of United States manufactures) has risen more since 1938 than the average value of United Kingdom exported manufactures, as follows:

	1938	1947 First half	1947 Second half	1948 First half
Price index of manufactures imported into the United Kingdom	100	222	252	273
Combined index of food and raw materials imported into the United Kingdom	100	242	260	281
Price ratio of imported primary commodities to imported manufactures	100	109	103	103

Thus, if we relate the prices of primary materials imported into the United Kingdom to those of non-United Kingdom manufactures imported into the United Kingdom, the improvement in the price relation since 1938 is a bare three per cent, compared with thirteen per cent for imported primary goods as related to United Kingdom exports of manufactures. It should be remembered, however, that this does not adequately represent the general position of producers outside the British Dominions and colonies.

Primary goods and capital goods

In the following table, the export prices of United Kingdom capital goods are shown separately and are compared with the prices paid for imported primary commodities.

Table IV - 10. United Kingdom Export Price Indices of Selected Classes of Capital Goods

(1938 = 100)

	1947 First Half	1947 Second Half	1948 First Half
United Kingdom import prices for primary commodities	242	260	281
United Kingdom export prices for manufactures	222	240	249
United Kingdom export price index of chemicals, drugs, dyes and colours	206	224	236
United Kingdom export price index of vehicles (including locomotives, ships and aircraft)	199	207	204
United Kingdom price index of iron, steel and manufactures thereof	182	194	210
United Kingdom export price index of non-ferrous metals and manufactures thereof	178	200	200
United Kingdom export price index of machinery	189	204	221

The table shows that the price indices of the five classes of capital goods fall within a fairly narrow range: for the first half of 1948, from 236 for chemicals, etc., which have increased most, to 200 for non-ferrous metals and their manufactures, which have increased least. Throughout the post-war period, each of these classes of producer goods has increased less than the average for all manufactures.

All classes of capital goods have thus increased less in price, throughout the post-war period, than the average of imported primary commodities. In the first half of 1948, the improvement in the purchasing power of a unit of imported primary commodities of United Kingdom capital goods ranges from nineteen per cent for chemicals, etc., to forty per cent for non-ferrous metals and their manufactures. As mentioned above, the improvement in terms of purchasing power of United Kingdom metal goods in general was twenty-five per cent.

In the first and second quarter of 1948 the price index was practically identical for the two major classes, namely, machinery and vehicles - both of primary importance to the under-developed countries - but in the

/three other

three other classes the upward tendency of prices continued.

In the case of United Kingdom vehicles, the position improved very rapidly, from the point of view of primary producers, between the first half of 1947 and the second half of 1948. During that period, import prices of primary commodities increased by sixteen per cent while export prices of United Kingdom vehicles increased by less than three per cent. In the four other classes, however, the price relation between primary commodities and United Kingdom capital goods showed little change between the first half of 1947 and the first half of 1948.

The relative importance of the various classes of United Kingdom capital goods contained in the above table is shown by their export values during the first half of 1948 (in millions of pounds):

Iron, steel and manufactures thereof	49
Non-ferrous metals and manufactures thereof	26
Machinery	119
Chemicals, drugs, dyes and colours	40
Vehicles (including locomotives, ships and aircraft)	116
Total	350

So far the data have been concerned with the prices of United Kingdom capital goods in relation to primary commodities, regardless of the destination of the former. Some of the studies of bilateral trade between industrialized and under-developed countries undertaken for the purpose of this report provide data on changes in United Kingdom export prices of capital goods to several under-developed countries. These data, however, relate to 1946, the last year for which the necessary detailed data are uniformly available.

War-time export surpluses and post-war imports

Of the United Kingdom, no less than of the United States, it is true that the country received a surplus of goods from under-developed countries during the war, resulting in an accumulation of claims on the part of the latter, with a subsequent tendency for these accumulations to be used for the import of manufactures from the United Kingdom. Hence a comparison of average war-time (1940-1945) United Kingdom import prices of primary goods, with average post-war (1946-June 1948) export prices of United Kingdom manufactures becomes relevant. This is set out in the following table:

/War-time

War-time/Post-War Price Relations
(1938 = 100)

	Ratio
War-time imported raw materials/post-war exported manufactures	88
War-time imported food/post-war exported manufactures	75
War-time imported primary goods combined/post-war exported manufactures	81
War-time primary imports/post-war textiles	60
War-time primary imports/post-war metal goods	87
War-time primary imports/post-war other manufactures	82

The figures agree to a considerable extent with the corresponding United States indices, and indicate a considerable deterioration for the war-time suppliers of primary articles arising from such delayed import transactions.

Summary of results of analysis of United Kingdom trade statistics:

(a) The overall price relation of imported primary commodities to exported manufactures is more favourable to primary suppliers than in 1938 but only a little more favourable than in 1937. Less than one-third of the deterioration since 1913 has been restored and the relation also remained less favourable than in the 1920's.

(b) In terms of United Kingdom metal goods, the improvement was more marked. Over one-half of the deterioration since 1913 had been restored. The price relation ruling in the 1920's has been substantially restored.

(c) The position of foreign under-developed countries in their trade with the United Kingdom was more favourable than that of the British Dominions supplying primary commodities.

(d) In terms of United Kingdom textile manufactures, the position of primary exporters to the United Kingdom was less favourable than in 1938. This deterioration offset by half the gains from the favourable change, since 1938, in price relations relative to United Kingdom metal goods.

(e) Among United Kingdom manufactures, textiles and chemicals have increased most, vehicles and non-ferrous metal manufactures least. However, textiles have risen more than imported primary goods whereas chemicals have risen less than these.

/C. Swiss Trade

C. Swiss Trade Statistics

The United States and the United Kingdom account for the major proportion of manufactured goods, and in particular of capital goods, available to under-developed countries. There are however, a number of other suppliers of capital goods which, although not important compared with the United States and the United Kingdom if taken by themselves, are yet of considerable importance collectively. Most of these countries are in Western Europe. Some of them are suffering from war devastation and war dislocation and are, at least temporarily, net importers of capital goods. Others, however, have continued to be exporters of considerable importance for certain types of capital goods and for certain countries. In the case of Switzerland and France, data are available for analysis of the export prices of capital goods in relation to import prices of raw materials and food.

The following table shows Swiss overall import prices, export prices and terms of trade for 1946 and 1947, compared with 1938:

(1938 = 100)

	1946[a/]	1947[a/]
Swiss import prices	231-230	242-243
Swiss export prices	249-245	270-266
Terms of trade for swiss suppliers	92-93	88-91

a/ The first figure of the Table relates to price indices based on pre-war (1938) trade composition for weights, the second figure on post-war (1947) composition of trade.

It is worth noting that while the United States and the United Kingdom experienced a deterioration in their terms of trade compared with 1938, Swiss terms of trade have improved by nine to twelve per cent in the period 1938 to 1947.[1/]

The relationship between Swiss import prices of primary commodities and Swiss export prices for manufactures and capital goods is, however, similar to that found in the preceding cases.

1/ In the publication of the Economic Commission for Europe, A Survey of the Economic Situation and Prospects of Europe, the improvement for 1947 is estimated at six per cent. The latter figure, however, is based on the first nine months of 1947 only.

(1938 = 100)

	1946	1947
Swiss import prices of primary materials:		
Food	292	301
Raw materials	192	214
Imported primary commodities combined	252	266
(1) Swiss export prices of iron and steel manufactures exclusive of watches	209	236
(2) Swiss export prices of chemicals	158	167
(3) Textile manufactures	261	287
(4) Watches	314	338
Capital goods combined (1) and (2)	192	217
All manufactured goods combined, (1), (2), (3) and (4)	233	256

Prices of Swiss capital goods, both iron and steel manufactures and chemicals, have increased less than the prices of all imported primary commodities. The improvement, from the point of view of primary producers, is entirely in respect of food; in respect of raw materials other than food there is no improvement.

A very different picture, however, appears if manufactured articles other than capital goods are included. The prices of Swiss (exported) textile manufactures and of Swiss (exported) watches have both increased more - in the case of watches considerably more - than the prices of imported primary commodities. As a result, the combined index of all Swiss manufactured articles, as measured by export prices, shows only a very small improvement over 1938 for producers of primary commodities selling to Switzerland - of the order of only four per cent.

The main results are set out in the following table.

/Table IV - 11.

Table IV - 11. Changes in Purchasing Power of a Unit of Primary Products Sold to Switzerland by Classes of Swiss Manufactured Goods

(Ratio of Swiss import prices over Swiss export prices)

(1938 = 100)

	1946	1947
Purchasing power over Swiss iron and steel manufactures	120	113
Purchasing power over Swiss chemicals	159	159
Purchasing power over Swiss capital goods combined	131	123
Purchasing power over Swiss textiles	96	92
Purchasing power over Swiss watches	80	79
Purchasing power over all Swiss manufactured goods combined	108	104

The relative importance of the four classes of Swiss manufactures distinguished above is shown in the following table:

	Per cent of Swiss exports in 1947
Iron and steel goods, other than watches.....	35
Chemicals.....	17
Textiles.....	19
Watches.....	20

Table IV - 11 shows a deterioration in the position of primary producers between 1946 and 1947. All the four classes of Swiss manufactured articles distinguished above, both separately and jointly, increased in price more than imported primary commodities.

Swiss Import and Export Prices

(1946 = 100)

		1947
Import prices of food		104
Import prices of raw materials		112
Import prices of primary commodities combined		107
Export prices:	Cotton tissues	112
	Sheet iron	115
	Copper manufactures	141
	Iron tubes	114
	Instruments and apparatus	124
	Automobiles	124
	Pharmaceutical products	117
	Chemical products	110
	Dyes	143

/The following

The following table shows the price changes of important individual capital goods exported by Switzerland.

(1938 = 100)

	1946	1947
Swiss import prices of primary commodities:		
Food	292	301
Raw materials	192	214
Imported primary commodities combined	252	266
Swiss export prices:		
Buses, trucks	355	348
Other articles of copper	269	329
Ball bearings	193	259
Machines and parts	212	252
Instruments and apparatus	209	208
Pipe connectors	145	152
Precision tools	165	148
Articles of sheet-iron and iron wire	223	119
Tractors	94	98

Summary

(a) The position of non-Swiss primary producers as related to Swiss manufactures had improved little over 1938. In 1946 the improvement was a little more marked, but half of this was lost between 1946 and 1947.

(b) Failure of the price relation to improve significantly from the 1938 position is due to high prices of Swiss watches and textile manufactures.

(c) In terms of Swiss capital goods only, the improvement has been more marked - of the order of twenty-three per cent.

(d) Prices of imported food have increased more than of non-food materials. For the former, there was a general improvement in price relations compared with 1938 (except in terms of Swiss vehicles), for the latter, a general deterioration.

D. French Trade Statistics

The analysis of French trade statistics is based upon valuations in French francs. This currency has of course, depreciated substantially since 1938. The actual import and export price indices in the tables which follow are therefore, of much higher magnitude than the corresponding indices for the other countries analysed in this section. Briefly, the relation of price indices for the imports and exports of France show the following:

/(a) The

(a) The terms of trade were moderately in favour of France in 1947, compared with 1938.

(b) Import prices for primary commodities, however, increased more than the average prices of all French manufactures exported; and very much more than the average prices of capital goods exported by France.

(c) Prices of food imports increased in larger proportion than did prices of any particular class of exports, including textiles. Prices of raw material imports, on the other hand, increased much less than did prices of all manufactured exports, and little more than prices of capital goods exports.

(d) Prices of exported textiles are outstandingly high.

/Table IV-12.

Table IV - 12. French Foreign Trade Price Indices, Primary Commodities and Manufactures
(1938 = 100)

Classes	Import	Export
(1) Food and beverages	1477	1369
(2) Raw materials (minerals, skins, leathers, wood, rubber, chemical and textile materials)	827	670
(3) Iron and steel manufactures, exclusive of watches	545	726
(4) Chemicals	1604	844
(5) Other manufactures (mainly textiles)	829 a/ b/	1268 c/
Primary commodities combined Food, beverages and raw materials, (1) and (2) combined	1201	1186
Capital goods, (3) and (4) combined	634	770
All manufactures, (3), (4) and (5) combined	650	1075
All 5 classes	1099	1110
Overall index	1024	1129

Note: Based on 1947 weights
a/ Based on very small quantities
b/ Textile manufactures and shoes, 910
c/ Textile manufactures and shoes, 1346

/Table IV - 13

Table IV - 13. French Import Prices of Primary Commodities and Export Prices for Manufactures and Capital Goods
(1938 = 100)

	1947
French import prices of primary materials:	
Food and beverages	1477
Raw materials[a/]	827
Primary imported commodities combined	1201
(1) French export prices of iron and steel manufactures exclusive of watches	726
(2) French export prices of chemicals	844
(3) Other manufactures[b/]	1268
Capital goods: (1) and (2) combined	770
All manufactured goods: (1), (2) and (3) combined	1075

a/ Minerals, skins and leathers, wood, rubber, chemical materials, textile materials

b/ Watches, chain, glassware, cutlery, rubber manufactures, perfumes, textiles and shoes.

/Table IV-14

Table IV - 14. Purchasing Power of a Unit of Primary Products Sold to France, by Classes of French Manufactured Goods
(1938 = 100)

	1947
Purchasing power of French iron and steel manufactures, exclusive of watches	165
Purchasing power of French chemicals	142
Purchasing power of French capital goods combined	155
Purchasing power of other French manufactures (eighty-two per cent textiles)	94
Purchasing power of all French manufactured goods combined	111

/Table IV-15

Table IV-15. Purchasing Power of a Unit of Food and Raw Materials Sold to France by Various Classes of French Manufactured Goods.

1938 = 100

	1947	
Purchasing power of French	Food	Raw Materials
iron and steel manufactures, exclusive of watches	203	113
Purchasing power of French chemicals	175	97
Purchasing power of French capital goods combined	191	107
Purchasing power of other French manufactures (82 per cent textiles)	116	65
Purchasing power of all French manufactured goods combined	137	76

/Table IV-16.

Table IV-16. Relative Importance of Main Classes of French Imports and Exports

1947

Imports:	Per cent of all imports	
Food and beverages	38	66
All raw materials	28	
Iron and steel manufactures, exclusive of watches	13	15
Chemicals	1	
Other manufactures	1	
Exports:	**Per cent of all exports**	
Food and beverages	18	25
All raw materials	7	
Iron and steel manufactures, exclusive of watches	14	56
Chemicals	7	
Other manufactures (82 per cent textiles)	35	

V. SPECIAL COUNTRY STUDIES

For the purposes of this report, a special analysis has been undertaken of the changes in export and import prices as they affect individual under-developed countries and territories, either in their dealings with the rest of the world, or else with one of two major industrialized countries, i.e., the United States and/or the United Kingdom.

Geographic Sub-Divisions

The following thirty-six studies are included:

Bahamas
Barbados
Brazil - U.K.
British Guiana
British Honduras
Burma - U.K.
Belgian Congo
China - U.S.
Cuba - U.K.
Cuba - U.S.
Dominica
East-west European trade
French Equatorial Africa
French Guiana
French West Africa
Grenada
Guadeloupe
Gold Coast
Haiti - U.S.
India - U.K.
India - U.S.
Indonesia
Iran
Jamaica
Kenya and Uganda
Lebanon and Syria-U.S.
Madagascar
Martinique
Puerto Rico-U.S.
Sierra Leone
St. Vincent
Surinam
Syria
Tanganyika
Trinidad and Tobago
Turkey - U.K.
Venezuela - U.S.

In addition, studies of the International Monetary Fund have been utilized. In this section, the data on overall terms of trade are first briefly examined; the data bearing upon the price relations between exports of the underdeveloped countries and various classes of their imports are then presented.

In the studies covering trade of given countries with the United Kingdom, the price indices are based upon United Kingdom exports valued f.o.b. and imports are valued c.i.f. at the United Kingdom port of entry. In the studies of trade with the United States, exports and imports are both valued f.o.b., and both indices represent prices of the goods without regard to charges arising out of transport. The analysis of overall terms of trade for given countries and territories are generally

/based

based upon exports from the given country valued f.o.b. and imports valued c.i.f. at the port of entry. In such cases, since shipping bottoms are generally owned by the industrial countries and underdeveloped countries generally receive little or no part of the charges arising out of transport, the export price index represents the relative amount the given country receives, and the import price represents the relative amount the country pays for the goods exchanged.

The valuations used in these studies are in the currency of the country whose trade statistics provide the basis for the analysis. These are United States dollars in studies involving trade relations with the United States; United Kingdom pounds sterling in trade relations with the United Kingdom; and the currency of the country concerned, in studies involving trade between the under-developed country or area with the rest of the world. No absolute price indices are quoted since these are in diverse currencies and are not comparable. The ratios used (imported textiles to all exports, etc.) should not be affected by the diversity of currencies used, except possibly where multiple exchange rates prevail. The latter caution does not apply to the results of the International Monetary Fund studies incorporated in the following section; these are based upon conversions into United States dollars.

In addition to these thirty-seven studies listed above, the International Monetary Fund has prepared an analysis of the terms of trade of the thirteen Latin American countries: The results for these countries are also incorporated in this section.

It is natural that the country studies should reveal many individual features. The composition of exports, as well as the markets and conditions under which given export articles are sold, vary greatly among different under-developed countries. Similarly, there is extreme variation, not only in the composition of the imports, but also in their sources and in the prices paid for given import articles. The study therefore shows considerable variation in the degree and direction of changes in terms of trade and to some extent, each of the country studies should be considered separately, with its specific problems and difficulties.

On the other hand, the studies also reveal some well established prevailing patterns. Some conclusions of the country studies apply to all the under-developed countries and territories; others are true of the great majority of the under-developed countries. Some factors emerge as being true of particular groups or types of under-developed countries.

/The following

The following tables present some of the more important common factors of the country studies.

Table V-1 shows the total terms of trade, obtained from the country studies. In most studies, these relate to the terms of trade of the given under-developed country with the rest of the world. In the case of the under-developed countries which were studied only in their trade relations with the United Kingdom and the United States, the stated terms of trade relate only to that particular part of their trade, may, however, be a predominant part of their trade, as is the case of the United States with Cuba or the United States with Haiti. Where the United States is concerned, it should be remembered in comparing changes in terms of trade that in some cases only capital goods exports (i.e. metal and metal manufactures, machinery, vehicles and chemicals) have been analysed. Terms of trade have been expressed as the ratio of export prices to import prices, (multiplied by 100) from the point of view of the under-developed country. Thus a high figure indicates a favourable change in terms of trade. A figure of 130 for example indicates that the quantum of imports which could be bought by the under-developed country for a given quantum of exports had increased 30 per cent since the base year. The period of time to which the recorded changes refer (i.e. the base date and the current date of the quoted index) is also indicated in the following table.

Table V-1. Changes in Overall Terms of Trade

Mexico, Carribean area and Central America:	Period Covered	Terms of trade at pre-war weights	Terms of trade at post-war weights
Bahamas	1938-1947	190	..
Barbados	1938-1946	68	..
Dominica	1938-1947	134	..
Honduras	1939-1947	67	..
Cuba-U.K.	1938-1946	104	137
Cuba-U.S.	1938-1947	110	100
	1937-1947	107	95
	1937-1948	105	86
Grenada	1938-1946[a]	132	..
Guadeloupe	1938-1947	101	..
Haiti-U.S.	1938-1947	116	113
	1937-1947	104	106
	1937-1948[a]	102	106
Jamaica	1938-1946	74	89
Martinique	1938-1947	95	105
Puerto Rico-U.S.	1938-1947	83	97
St. Vincent	1938-1947	87	..
Trinidad and Tobago	1938-1947	63	..
/Data obtained by the International Monetary Fund			
Costa Rica	1938-1946	111	..
Cuba	1938-1946	100	107
Mexico	1938-1946	114	..
Nicaragua	1938-1946	93	..
South America:			
Brazil-U.K.	1938-1946	122	122
Brazil-U.S.	1938-1947	310	199
British Guiana	1938-1947	67	..
French Guiana	1938-1947	72	..
Surinam	1938-1947	68	54
Venezuela-U.S.	1938-1947	118	128
/Data obtained by the International Monetary Fund			
Argentina	1938-1946	120	..
Bolivia	1938-1946	81	..
Brazil	1938-1946	138	168
Chile	1938-1946	82	87
Colombia	1938-1946	105	131
Ecuador	1938-1946	118	..
Guatemala	1938-1946	111	119
Peru	1938-1946	90	..
Venezuela	1938-1946	95	..

[a] First four months of 1948.

/Data

	Period Covered	Terms of trade at pre-war weights	Terms of trade at post-war weight
/Data obtained by United Kingdom Board of Trade			
Argentina-U.K.	1938-1947	..	148
Brazil-U.K.	1938-1947	..	135
Netherlands West Indies-U.K.	1938-1947	..	105
Europe:			
Eastern Europe-western Europe	1938-1947	128	120
Africa:			
Belgian Congo	1938-1947	115	123
French Equatorial Africa	1938-1947	65	67
French West Africa	1939-1947	121	111
Gold Coast	1938-1947	122	105
Madagascar	1938-1947	105	110
Tanganyika	1938-1947	100	104
Sierra Leone	1938-1946	81	111
Kenya and Uganda	1938-1947	66	59
Southern Rhodesia-U.K.[b/]	1938-1947	..	116
Asia:			
Burma-U.K.	1938-1946	124	126
China-U.S.	1938-1947	86	74
India[c/]-U.K.	1938-1946	81	105
India[c/]-U.S.	1938-1947	152	109
	1937-1947	129	105
	1937-1948[a/]	141	110
Indonesia-U.S.[d/]	1938-1947	70	114
Iran	1938/39 -46/47	36	28
Syria-Lebanon	1937-1947	91	131
Turkey-U.K.	1938-1946	156	200
India[c/]-U.K.[b/]	1938-1947	..	132
Ceylon-U.K.[b/]	1938-1947	..	103

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a/ First four months of 1948.
b/ Obtained by the U.K. Board of Trade.
c/ India and Pakistan.
d/ For capital goods only.
.. Not computed

/In the above

In the above table the pre-war weighted figures may be considered more representative in cases where the composition of trade at the post-war date must still be considered abnormal. This applies, in most cases, where 1946 is the post-war date and, in some cases, even where 1947 is the post-war date.

The table indicates that there is no general rule that "the terms of trade of under-developed countries have improved" between 1938 and 1946 or 1947, nor a general rule that "the terms of trade of under-developed countries have deteriorated" during that period. Such sweeping statements are not justified to the facts. The main operative factors are complex, as may be seen from the summary statements which follow, and they not unnaturally produce divergent results.

It will also be noticed that the price effects of given commodities are often different for different countries, and also differ from their position in the price array in section III. Cocoa, coffee and sugar are cases in point. This illustrates the statement made in the Introduction, concerning different prices being paid and obtained in different currency areas, under different types of contract and agreement, etc.

Further, it should be noted that in the following discussion the terms "high", or "low" are used in relation to the general export or import prices of the country or area concerned; since these differ, the part which given commodities - even at given prices - play in determing terms of trade, is also bound to differ.

Central America

The Central American studies show conflicting tendencies. The Bahamas, Cuba-United Kingdom, Grenada, Haiti, Dominica (and also Costa Rica, Mexico and Cuba, generally, according to the studies of the International Monetary Fund) are improved; but unchanged terms of trade are observed for Guadeloupe; deteriorated terms of trade for Barbados, British Honduras, Jamaica, Puerto Rico-United States, St. Vincent, Trinidad and Tobago, and also for Martinique if pre-war composition is considered representative; and in Cuba-United States compared with 1937 if post-war composition of trade is considered representative (and also for Nicaragua, as shown by the studies of the International Monetary Fund).

In Cuban trade with the United Kingdom the situation is largely determined by the substitution, between 1938 and 1946, of more highly priced sugar for lower priced molasses and cigars in exports, and of lower priced cotton thread for more highly priced piece-goods in imports, producing the startling divergence between the two indices for pre-war and post-war weighting. In Cuban trade with the United States, the post-war index is less favourable because of heavy imports of highly priced rice. In terms

/of United States

of United States capital goods, Cuban terms of trade have generally changed favourably, but there are a number of important exceptions, among them metal working machines, textiles and agricultural machinery, as well as some chemicals. The terms of trade for Grenada are favourable because of high prices obtained for nutmeg and low prices paid for imported lumber, motor cars and cement; on the other hand, exported maize was comparatively cheap and imported textiles were high-priced. In Guadeloupe high prices of imported textiles and low prices of exported sugar and coffee were offset by high prices for bananas and increases in other directions. In the case of Haiti the modest improvement can be attributed to high prices for coffee and castor beans and low prices for capital goods generally, but the improvement would have been much larger but for lower prices obtained for bananas and the high prices of textiles, imported food and some capital goods, such as cane sugar, machinery and sodium hydroxide. In Martinique, the post-war position was sustained by high export prices for pineapples and bananas and low import prices for industrial products but was offset by lower export prices for rum and sugar and high import prices for food and textiles. In Trinidad and Tobago the deterioration is attributable to low prices of petroleum and high prices of imported textiles. On the other hand, in terms of exported cocoa and rum, as well as of imported industrial goods (except vehicles), the terms of trade improved.

In the case of Barbados, the deterioration is attributable to the high prices for imported textiles and, secondarily, to the high prices of imported grains and milk and such industrial products as shingles, relative to the small price increase in the major export article - sugar; the secondary exports of molasses and rum also increased very little in price. In the case of Dominica, the deterioration is entirely attributable to the high prices of textiles. In terms of imports other than textiles, there was a considerable improvement, mainly due to good prices obtained for exported cocoa. Export prices obtained for lime oil and lime juice were low. In the case of British Honduras, the deterioration is attributable to the low prices obtained for the major export articles - gum and mahogany - and the high prices paid for textiles, wheat flour and silk; in terms of imported motor vehicles there was an improvement; export prices obtained for cocoa nuts and cedar were also good. In the case of St. Vincent, the deterioration is attributable to low export prices of arrowroot and sea island cotton, and high import prices of salted fish, rice, lard and condensed milk and sugar; good export prices for copra mitigated the deterioration. In the case of Jamaica, low prices for bananas and sugar and high prices for imported textiles were only partially offset by better prices for rum. In the Bahamas, improvement is attributable to the large price increases for exported crawfish and lumber; this was

/only partially

only partially offset by poor export prices for exported salt and high export prices for imported flour, rice, sugar, tobacco and shingles. In Costa Rica, such data as are available suggest that terms of trade have sharply improved. In Puerto Rico, the deterioration in terms of trade with the United States can be attributed, on the import side, entirely to high prices of textiles and food, especially rice. Export prices are determined by unrefined sugar, but the secondary exports of pineapples, cocoanuts, molasses and cotton handkerchiefs were sold at favourable prices.

The above brief comments will serve to reveal the great variety of circumstances. The studies do not present clear-cut tendencies prevailing throughout a given country but diverse movements, often partially or wholly offsetting each other.

South America

Changes in terms of trade have been preponderantly favourable. The analyses undertaken for this report show favourable changes for Brazil in trade with the United States and the United Kingdom and for Venezuela in trade with the United States. To these can be added the studies of the International Monetary Fund, Argentina, Brazil, generally, Colombia, Ecuador, Guatemala, and Peru at post-war weighting. Deterioration was found in the country studies for this report in the case of British and French Guiana, Surinam and from the studies of the International Monetary Fund for Bolivia, Chile, Venezuela, generally, and Peru at pre-war weighting. For Latin America as a whole, the studies of the International Monetary Fund estimate that terms of trade in 1946 were twenty-two per cent better than in 1938; this would about restore the 1937 position.

Brazilian terms of trade in terms of United States capital goods improved considerably, but in trade with the United Kingdom the improvement was less, owing to the preponderance of cotton, rather than coffee, in exports and the high prices for imported textile machinery and industrial chemicals. In British Guiana the deterioration is due to the low prices obtained for exported sugar, timber and rum, in relation to high prices paid for textiles and, secondarily, for imported coffee, smoked and dried fish, currents, nuts, lentils and seeds. Similarly, French Guiana deteriorated because of the low prices of gold and the high prices of imported food and textiles; in terms of capital goods there was an improvement. In Surinam, low prices of bauxite and high prices of imported cotton fabrics were the main reasons for a sharp deterioration in terms of trade. High prices of imported food were a secondary cause but there was no deterioration in respect of imported capital goods. In the case of Venezuela, the improvement was reduced by high prices of imported copper manufactures and building machinery.

/Europe

Europe

For Europe the study shows that in trade between eastern and western countries, terms of trade have improved in favour of the comparatively less developed eastern countries; the improvement was almost equally spread over food, raw materials and products of light industry and raw materials and products of heavy industries. The terms of trade of Bulgaria, Hungary and Poland have all improved since 1938.

Africa

In Africa, terms of trade have generally improved since 1938. The studies show improved terms of trade for the Belgian Congo owing to good prices for palm-oil and cotton and low prices of imported industrial raw materials, vehicles and other capital goods; but the advantage was reduced by low prices of exported tin ore and gold and high prices for imported textiles. Terms of trade also improved for French West Africa due to high export prices for peanuts and bananas in relation to import prices for industrial materials (specially of capital goods); the advantage was reduced by high import prices for textiles, rice, wine and cement. Terms of trade also improved for the Gold Coast, mainly owing to high prices for cocoa and low import prices for industrial raw materials and manufactures of all kinds; the advantage was reduced by low prices of exported gold and manganese ore and high prices for imported textiles. The improved terms of trade for Madagascar can be mainly attributed to the low import prices of vehicles and industrial products, such as petrol products and paper, and to the good prices obtained for some secondary exports such as preserved meat, raw skins and corn; on the other hand, the gain was reduced by low prices for the major export article - coffee - and by high prices for imported textiles and metal manufactures.

Other African territories showed no change or inconclusive changes in their terms of trade. No change is shown by Tanganyika, where high prices for exported sisal and low prices for imported industrial goods and capital goods were offset by low prices for exported gold, coffee, cotton and hides and by high prices of imported textiles and cigarettes. General data for Tanganyika show the 1947 terms of trade position as twenty per cent better than in 1938. An inconclusive result is obtained for Sierra Leone where terms of trade deteriorated on the pre-war composition of trade, but improved on the post-war composition of trade; since the quantum of post-war Sierra Leone exports for which a high price index was obtained is abnormally low, Sierra Leone may be classified as a case of deteriorated terms of trade, owing to low prices for exported palm kernels and high prices for imported textiles, and in spite of low prices for imported capital goods.

Finally, two cases of clear deterioration in terms of trade can be observed for French Equatorial Africa and Kenya and Uganda. In the case of

French Equatorial Africa, the deterioration is attributable to low prices for exported crude ores and coffee and high prices for imported food and textiles. In the case of Kenya and Uganda, the deterioration is attributable to low export prices of practically all exported articles, relative to the high import prices of textiles, food and other manufactured consumption goods, and in spite of low prices of imported industrial materials and capital goods. General data show the deterioration as mainly affecting Kenya, with Uganda little changed.

Asia

In Asia, clear improvement over 1938 was found for Burma in trade with the United Kingdom, India in trade with the United States, for Lebanon and Syria, and for Turkey in trade with the United Kingdom. For Burma in trade with the United Kingdom, the improvement may be attributed to good prices for lead and low prices for imported iron and steel manufactures and machinery, but it was reduced by low prices for exported rubber and tungsten and high prices of imported textiles. For India in trade with the United States the improvement is attributable to high prices for exported jute, and low prices for imported capital goods, with the exception of such chemicals as dyes and caustic soda and some capital goods, such as harrows, galvanized wire, engine lathes and others. Other data show improvement in Indian terms of trade for 1947, compared with 1938, both in global trade and in trade with the United Kingdom. For Lebanon and Syria the improvement appears to be caused by high prices of exported olive oil and low prices for imported automobiles but is reduced by low prices for lentils and wool and high prices for imported cotton cloth. The situation of Lebanon and Syria, however, is not clear. The favourable change in Turkey in trade with the United Kingdom is attributable to good prices for exported figs and hazel nuts and low import prices of capital goods (with the exception of hand tools) but it was reduced by low export prices for bran and high import prices for textiles On the other hand, general data suggest that terms of trade turned sharply against Turkey between 1946 and 1947.

On the other hand, deterioration is shown by India in trade with the United Kingdom for 1946, and for Iran, Indonesia and China. China's deterioration in terms of trade is the result of low prices received for bristles, feathers, furs and skins and high prices paid for imported textiles and chemicals. In the case of India and Indonesia the statement of deteriorated terms of trade is based on pre-war composition of exports since the 1946 composition of exports from these countries cannot be considered representative. In the case of India in trade with the United Kingdom, the deterioration is attributable to low prices for tea and high prices for textiles and textile machinery. In the case of Indonesia, the deterioration is attributable to low prices for rubber, tin and petroleum, and to high prices of imported finished metal goods, engines and metal-working machinery. General data suggest that total terms of trade in

/1947 were

1947 were still unfavourable. In the case of Iran there is a heavy deterioration due to low prices for exported petroleum and high prices for imported sugar and textiles. The price of exported petroleum, however, is a case of intra-company transactions, and its significance is not quite clear. Other data suggest that Ceylon also has experienced worse terms of trade than before the war, on a 1934-38 basis.

Summary

The foregoing analysis indicates how impossible it is to generalize on the global changes in terms of trade which have occurred. The information obtained in the special studies can be summarized as follows:

/Table V-2

Table V-2. Summary of Results of Area Studies

Region	Number of areas studied	Compared with 1938		
		Improved terms of trade for under-developed countries or areas	No change or inconclusive result	Worsened terms of trade for under-developed countries or areas
Mexico, Caribbean area, Central America	16	7 Bahamas Costa Rica[a]/ Cuba)[a]/ Cuba-U.K.) Cuba-U.S.) Grenada Haiti Dominica Mexico[a]/	2 Guadeloupe Martinique	7 Trinidad and Tobago Barbados British Honduras St. Vincent Nicaragua[a]/ Jamaica Puerto Rico
South America	12	5 Argentina[a]/ Brazil[a]/) Brazil-U.K.) Brazil-U.S.) Guatemala[a]/ Venezuela Colombia[a]/ Ecuador[a]/	2 Peru[a]/ Venezuela[a]/	5 Chile[a]/ French Guiana British Guiana Surinam Bolivia[a]/
Europe	1 Eastern-western Europe	1 All eastern Europe	None	None
Africa	8	4 Belgian Congo French West Africa Gold Coast Madagascar	1 Tanganyika	3 French Equatorial Africa Kenya and Uganda Sierra Leone[b]/
Asia	7	3 Burma-U.K. Lebanon and Syria Turkey-U.K.	1 India[d]/[e]/	3 Iran Indonesia-U.S.[e]/ China-U.S.
Total	44	20	6	18

a/ Study undertaken by the International Monetary Fund.
b/ Pre-war weighting has been considered representative.
c/ Result obtained on broad commodity classification considered representative.
d/ Favourable change in trade with United States, unfavourable change in trade with United Kingdom.
e/ Pre-war composition of trade considered representative.

/Various

Various Classes of Commodities

It will be remembered that in the earlier part of the report it was found that prices of primary materials generally have increased more than prices of manufactured goods. This rule is not matched by a correspondingly clear preponderance of favourable changes in the terms of trade of under-developed countries. The changes in global terms of trade of under-developed countries are less favourable than the price relation of primary materials to manufactured goods, and capital goods in particular, would have suggested.

This point may be clarified by a separate study of the relation of export prices of under-developed countries in the country studies made for this report, not in relation to all imported commodities but in relation to specific classes of important imports. The relevant data are presented in the group of tables which follow. In these tables, the changes compared with 1938 are indicated in the quantum of imports of the specific classes of the imported commodities which could be bought with a given quantum of exports from the under-developed country. Thus a high figure indicates a favourable price relation, i.e., an increase in the quantity of imports obtainable for a given quantum of exports. The crucial categories of capital goods are taken first.

/Table V-3

Table V-3. Quantum of Imported Metals and Metal Manufactures Obtainable for a Given Quantum of Total Exports
(Pre-war = 100)

Area	Quantum
Bahamas	136
Brazil-United Kingdom	197
Brazil-United States	228
Burma-United Kingdom	130
China-United States	150
Cuba-United States	164
French Equatorial Africa	79
French Guiana	149
French West Africa	116
Gold Coast	126
Guadeloupe	92
Haiti-United States	140
India-United States	173
India-United Kingdom	101
Indonesia-United States	109
Iran	59
Kenya and Uganda	98
Lebanon and Syria	148
Madagascar	95
Martinique	147
Puerto Rico-United States	103
Sierra Leone	128
Surinam	99
Turkey-United Kingdom	224
Tanganyika	183
Trinidad and Tobago	149
Venezuela-United States	152

/The data

The data in the preceding table contain twenty-seven indices derived from the studies relating to twenty-five different countries or areas. In the case of twenty-one of the studies relating to nineteen of the twenty-five areas, the quantum of metal and metal manufactures obtainable for a given quantum of exports from the under-developed country or area concerned had increased compared with pre-war levels, i.e., the import prices of metals and metal manufactures had increased less than the price of exports from the country concerned. In calculating the index, the pre-war composition of exports was used, since the post-war composition was abnormal in a number of cases.

Here we find that preponderance of favourable changes which the previous analysis of relative prices of primary commodities and capital goods had anticipated. In only six out of twenty-five areas studied had export prices failed to increase more than the prices of metal and metal manufactures. Moreover, in four of the six cases where unfavourable change in the price relation of total exports to imported metal and metal manufactures was found, the deterioration in the quantum of metals and metal manufactures obtainable for a given quantum of exports was less than ten per cent, namely Surinam, Madagascar, Kenya and Uganda and Guadeloupe. There remain only two cases where there has been a serious deterioration in this price relation, namely French Equatorial Africa and Iran. The following grouping indicates the changes which have occurred with regard to the quantum of metals and metal manufactures.

/Group A

Group A: [a]

Brazil-U.S.	228
Turkey-U.K.	224
Brazil-U.K.	197
Tanganyika	183
India-U.S.	173
Cuba-U.S.	164
Venezuela-U.S.	152

Group B: [b]

China-U.S.	150
Trinidad and Tobago	149
Lebanon and Syria	148
Martinique	147
French Guiana	146
Haiti-U.S.	140
Bahamas	136
Burma-U.K.	130
Sierra Leone	128
Gold Coast	126
West Africa	116

Group C: [c]

Indonesia-U.S.	109
Kenya and Uganda	104
Puerto Rico-U.S.	103
India-U.K.	101
Surinam	99
Madagascar	95
Guadeloupe	92

Group D: [d]

French Equatorial Africa	79
Iran	59

The balance of favourable change from the point of view of under-developed countries is very clearly marked.

a/ Considerable increase in the quantum of metals and metal manufactures obtainable for a given quantum of exports (index over 150).

b/ Moderate increase in the quantum of metals and metal manufactures obtainable for a given quantum of exports (index 110 to 150).

c/ Little change in the quantum of metals and metal manufactures obtainable for a given quantum of exports (index 90 to 110).

d/ Considerable decrease in the quantum of metals and metal manufactures obtainable for a given quantum of exports (index under 90).

Table V-4 shows similar changes in the quantity of imported machinery obtainable for a given quantum of exports since pre-war years, where such separate calculation could be made. The data listed in this table are based on twenty-six indices with 1938 as a base year.

Table V-4. Quantum of Imported Machinery Obtainable for a Given Quantum of Total Exports
(1938 = 100)

Area	Quantum
Belgian Congo	134
Brazil	164
Brazil-U.K.	129
Burma-U.K.	203
Chile	118
Cuba a/	138
China-U.S.	148
Colombia	118
Cuba-U.K.	174
French Equatorial Africa	131
Gold Coast	148
Guatemala	148
Haiti-U.S.	137
India-U.S.	152
India-U.K.	106
Indonesia-U.S.	86
Iran	71
Lebanon and Syria	134
Mexico	126
Peru	120
Puerto Rico-U.S.	132
Sierra Leone	112
Surinam	101
Turkey-U.K.	215
Venezuela-U.S.	118

a/ Study by the International Monetary Fund.

/Here, too,

Here, too, it is evident that the balance of change has been favourable to the under-developed countries. Of the 25 indices relating to 22 countries or areas, only two, namely Iran and Indonesia (the latter in relation to U. S. machinery) have experienced increased prices for imported machinery greater than the increase in prices for their own exports. The other 23 show improvement, as the following grouping indicates.

Group A:[a]		Group B:[b]	
Turkey-U.K.	215	Guatemala	148
Brazil-U.S.	203	China-U.S.	148
Burma-U.S.	187	Gold Coast	148
Cuba-U.S.	174	Cuba	138
Brazil	164	Haiti-U.S.	137
India-U.S.	152	Syria-Lebanon	134
		Belgian Congo	134
		Puerto Rico-U.S.	132
		French Equatorial Africa	131
		Brazil-U.K.	129
		Mexico	126
		Peru	120
		Venezuela-U.S.	118
		Chile	118
		Colombia	118
		Sierra Leone	112
Group C:[c]		Group D:[d]	
India-U.K.	106	Indonesia-U.S.	86
Surinam	101	Iran	71

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a/ Considerable increase in the quantum of machinery obtainable for a given quantum of exports (index over 150).

b/ Moderate increase in the quantum of machinery obtainable for a given quantum of exports (index 111 to 150).

c/ Little change in the quantum of machinery obtainable for a given quantum of exports (index 90 to 110).

d/ Considerable decrease in the quantum of machinery obtainable for a given quantum of exports (index under 90).

/Table V-5 analyses

Table V-5 analyses the position with regard to imported vehicles. Nineteen indices are calculated relating to 19 different under-developed countries or areas. Again we find that in all but two cases, prices of imported vehicles have risen less than prices of exports.

Table V-5. Quantum of Imported Vehicles Obtainable for a Given Quantum of Total Exports

(1938 = 100)

Area	Quantum
Bahamas	163
Belgian Congo	135
Brazil-United States	199
British Honduras	118
China-United States	114
French Equatorial Africa	199
French West Africa	178
Gold Coast	144
Grenada	178
India-United Kingdom	122
Indonesia-United States	70
Dominica	181
Kenya and Uganda	126
Lebanon and Syria	340
Madagascar	149
Puerto Rico-United States	115
Sierra Leone	105
Trinidad and Tabago	86
Venezuela-United States	118

/The countries

The countries are grouped below according to the relationship of pre-war and post-war quantum of vehicles.

Group A: a/

Lebanon and Syria	340
Brazil-United States	199
British Dominica	181
French West Africa	178
Grenada	178
Bahamas	163

Group B: b/

French Equatorial Africa	149
Madagascar	149
Gold Coast	144
Belgian Congo	135
Surinam	128
Kenya and Uganda	126
India-United Kingdom	122
Venezuela-United States	118
British Honduras	118
Puerto Rico-United States	115
China-United States	114

Group C: c/

Sierra Leone	105

Group D: d/

Trinidad and Tobago	86
Indonesia-United States	70

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a/ Considerable increase in the quantum of vehicles obtainable for a given quantum of exports (index over 150).

b/ Moderate increase in the quantum of vehicles obtainable for a given quantum of exports (index 110 to 150).

c/ Little change in the quantum of vehicles obtainable for a given quantum of exports (index 90 to 109).

d/ Considerable decrease in the quantum of vehicles obtainable for a given quantum of exports (index under 90).

Table V-6 analyses the position with regard to imported chemicals.

TABLE V-6. Quantum of Imported Chemicals Obtainable for a Given Quantum of Total Exports
(Pre-war = 100)

Area	Quantum
Belgian Congo	120
Brazil-United Kingdom	201
Brazil-United States	109
British Guiana	86
China-United States	60
Cuba-United States	122
Gold Coast	185
Guadeloupe	107
Haiti	105
India-United States	71
India-United Kingdom	143
Iran	69
Jamaica	132
British Dominica	211
Kenya and Uganda	79
Lebanon and Syria	144
Martinique	110
Puerto Rico-United States	111
Sierra Leone	111
Surinam	71
Turkey-United Kingdom	146
Venezuela	109

Of the twenty-two indices shown in table V-6 relating to twenty countries or areas, sixteen indices relating to fourteen countries show a favourable change. The balance of change is unmistakably in favour of under-developed countries. Chemicals are, of course, a somewhat heterogeneous group, including both chemical raw materials and fertilizers.

Group A: a/		Group B: b/	
British Dominica	211	Turkey-United Kingdom	146
Brazil-United Kingdom	201	Lebanon and Syria	144
Gold Coast	185	India United Kingdom	143
		Jamaica	132
		Cuba-United States	122
		Belgian Congo	120
		Sierra Leone	111
		Puerto Rico-United States	111
		Martinique	110

Group C: c/		Group D: d/	
Brazil-United States	109	British Guiana	86
Venezuela	109	Kenya and Uganda	79
Guadeloupe	107	Surinam	71
Haiti	105	China-United States	60
		Iran	69
		India-United States	71

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a/ Considerable increase in the quantum of chemicals obtainable for a given quantum of exports (index over 150).

b/ Moderate increase in the quantum of chemicals obtainable for a given quantum of exports (index 110 to 150).

c/ Little change in the quantum of chemicals obtainable for a given quantum of exports (index 90 to 109).

d/ Considerable decrease in the quantum of chemicals obtainable for a given quantum of exports (index under 90).

A comparison with the grouping for metals and metal manufactures and for machinery will show that the shift in favour of under-developed countries in respect of imported chemicals has been somewhat less marked.

The following two tables present a very different picture. Table V-7 shows the position with regard to imported textiles. This is in most striking contrast to the tables relating to capital goods. Of the thirty-five indices representing thirty-three different under-developed countries or areas, only two show improvement - and in small degree - in terms of trade in respect of imported textiles; the areas concerned are Cuba and St. Vincent. In all other cases prices of imported textiles have risen more than the prices obtained for exports. In some cases the deterioration in terms of trade in respect of imported textiles has been very sharp. Where studies relate to total terms of trade of under-developed areas with the rest of the world, as in Iran or Madagascar, the high textile import prices may partly reflect the substitution of more expensive sources

/of supply

of supply for cheaper ones. But even where this factor does not apply, as in the India-United Kingdom study or Brazil-United Kingdom, we find a heavy reduction in the quantum of textiles obtainable for a given quantum of exports.

/Table V-7

Table V-7. Quantum of Imported Textile Obtainable for a Given Quantum of Total Exports
(Pre-war = 100)

Area	Quantum
Barbados	57
Belgian Congo	73
Brazil[a]	81
Brazil-U.K.	75
British Guiana	50
British Honduras	59
Burma-U.K.	96
Chile[a]	58
China-U.S.	87
Cuba[a]	101
Dominica	80
French Equatorial Africa	32
French Guiana	73
French West Africa	98
Gold Coast	79
Grenada	98
Guadeloupe	79
Haiti-U.S.	72
India-U.K.	51
Iran	46
Jamaica	55
Kenya and Uganda	42
Lebanon and Syria	95
Madagascar	93
Martinique	75
Mexico[a]	87
Peru[a]	61
Puerto Rico-U.S.	55
Sierra Leone	61
St. Vincent	105
Surinam	40
Tanganyika	61
Trinidad and Tobago	50
Turkey-U.K.	70
Venezuela-U.S.	99

[a] Based on the International Monetary Fund studies of terms of trade.

/Group A

Group A: [a]

None

Group B: [b]

None

Group C: [c]

St. Vincent	105
Cuba	101
Venezuela-U.S.	99
French West Africa	98
Grenada	98
Burma-U.K.	96
Lebanon and Syria	95
Madagascar	93

Group D: [d]

Mexico	87
China-U.S.	87
Dominica	80
Gold Coast	79
Guadeloupe	79
Brazil	78
Brazil-U.K.	75
Martinique	75
Belgian Congo	73
French Guiana	73
Haiti-U.S.	72
Turkey-U.K.	70
Peru	61
Tanganyika	61
Sierra Leone	61
British Honduras	59
Chile	58
Barbados	57
Jamaica	55
Puerto Rico-U.S.	55
India-U.K.	51
Trinidad and Tobago	50
British Guiana	50
Iran	46
Kenya and Uganda	42
Surinam	40
French Equatorial Africa	32

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a/ Considerable increase in the quantum of textiles obtainable for a given quantum of exports (index over 150).

b/ Moderate increase in the quantum of textiles obtainable for a given quantum of exports (index 110 to 150).

c/ Little change in the quantum of textiles obtainable for a given quantum of exports (index 90 to 109).

d/ Considerable decrease in the quantum of textiles obtainable for a given quantum of exports (index under 90).

/ The great

The great rise in the prices of imported textiles and its determinant effect on terms of trade is quite clear from the table. Since these prices have universally risen more than the export prices of under-developed countries, and since capital goods, in the aggregate, have almost universally risen less in price than exports of under-developed countries, it follows that there is a direct correlation between the proportion of textiles and capital goods in total imports, and changes in overall terms of trade. Where the ratio of imported textiles to imported capital goods is high, terms of trade tend to change unfavourably. Where the proportion of imported textiles to imported capital goods is low, global changes in terms of trade tend to be favourable. This ratio may be considered one of the two major determinants of changes of terms of trade of under-developed countries; the other major determinant was shown in tables III-5 and III-6 above,[1/] namely the index of export price situation, showing the degree of specialization in exports of the various under-developed countries according to the degree of price rise in the primary materials specialized in for exports.

Table V-8 shows the position with regard to imported food and drink. The picture here is less decided. Of the 36 indices relating to 35 under-developed countries or areas, 14 show an improvement from the point of view of the under-developed country, in the sense that the quantum of food and drink obtainable for a given quantum of exports had increased, while 22 show deterioration. The scales, therefore, are more evenly balanced than in the other classes so far considered. Nor is this surprising. Since the exports of the under-developed countries consist largely of food items, the price index for imported food and drink may be expected to be similar, in general, to the total export price index of under-developed countries. In many cases the quantum of food obtainable with a given quantum of exports has changed very little; group C is comparatively large. However, on omitting this intermediate group, the adverse changes appear to preponderate. In no case has the quantum of imported food obtainable been increased by over 40 per cent, but in four cases has it been diminished by that percentage. Three had improved by over 30 per cent, but nine had been reduced by more than that percentage.

1/ See above, section III.

Table V-8. Quantum of Imported Food and Drink Obtainable for a Given Quantum of Total Exports
(Prewar = 100)

Area	Quantum
Bahamas	160
Belgian Congo	97
Barbados	81
Brazil	78
British Guiana	65
British Honduras	64
Colombia	80
China-United States	85
Cuba	78
Cuba-United States	80
Chile	46
Dominica	126
French Equatorial Africa	65
French Guiana	50
French West Africa	115
Gold Coast	126
Grenada	132
Guadeloupe	103
Guatemala	110
Haiti-United States	106
India-United Kingdom	112
Iran	31
Jamaica	75
Kenya and Uganda	90
Lebanon and Syria	137
Madagascar	107
Mexico	71
Martinique	74
Peru	64
Puerto Rico-United States	66
Sierra Leone	101
Surinam	63
Tanganyika	128
Trinidad and Tobago	59
Venezuela-United States	126
St. Vincent	71

/The countries

The countries may be grouped as follows:

Group A: a/

Bahamas	160

Group B: b/

Lebanon and Syria	137
Grenada	132
Tanganyika	128
Dominica	126
Gold Coast	126
Venezuela-United States	124
French West Africa	115
India-United Kingdom	112

Group C: c/

Madagascar	107
Haiti-United States	106
Guadeloupe	103
Sierra Leone	101
Belgian Congo	97
Kenya and Uganda	90

Group D: d/

China-United States	85
Barbados	81
Cuba-United States	80
Jamaica	75
Martinique	74
St. Vincent	71
Puerto Rico-United States	66
British Guiana	65
French Equatorial Africa	65
British Honduras	64
Surinam	63
Trinidad and Tobago	59
French Guiana	50
Iran	31

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a/ Considerable increase in the quantum of food and drink obtainable for a given quantum of exports (index over 150).

b/ Moderate increase in the quantum of food and drink obtainable for a given quantum of exports (index 110 to 150).

c/ Little change in the quantum of food and drink obtainable for a given quantum of exports (index 90 to 109).

d/ Considerable decrease in the quantum of food and drink obtainable for a given quantum of exports (index under 90).

APPENDIX A. IMPORTANCE OF TERMS OF TRADE FOR ECONOMIC DEVELOPMENT

Improvements in the terms of foreign trade, i.e., in the relation of export prices to import prices, affect the national incomes of under-developed countries as definitely as improved technology, increases in the level of employment or a change from less productive to more productive occupations, such as occurs in the process of industrialization. Conversely, a deterioration in terms of trade has the effect of offsetting such favourable developments as may occur. A favourable change in terms of trade, by providing the opportunity of obtaining an increased quantum of imports for a given quantum of exports, enables an under-developed country to obtain its previous quantum of imports for a reduced quantity of exports and to utilize the domestic resources thus set free for purposes of economic development or, alternatively, to utilize the extra imports obtained for the previous quantum of exports for purposes of development. In either case, therefore, economic development can be promoted by a favourable change in terms of trade, i.e. a rise of export prices relative to import prices.

Limitations on Economic Interpretation of Changing Terms of Trade.

It is important to interpret and qualify the statements which have been made in the preceding section on the favourable effects of a rise in export prices relative to import prices. In any case, the terms of trade are only one factor, and not generally the most important single factor in determining national income and funds available for economic development. Nor must it be considered that an increase in export prices, relative to import prices, automatically furthers economic development.

A rise in export prices may be due to a restriction in supplies of such degree that total export receipts (which are the joint product of price and quantity) are diminished rather than increased. In such case, the total imports which can be obtained after the "improvement" in terms of trade are reduced rather than increased.

A good illustration of this is provided by the post-war rise in the price of cocoa. As will be shown in some of the following tables, cocoa prices generally have increased markedly; hence under-developed countries which specialize on cocoa in their exports tend to have favourable changes in their terms of trade. This "favourable" change is, however, partly due to a virus disease ("Swollen Shoot disease") affecting the Gold Coast, at present the major producing area. The disease has reduced supplies and thus tended to raise prices. It is evident that this is not a "favourable" change for the Gold Coast. It merely means that the rise in the price of exported cocoa, as a result of the actual and anticipated diminution of supplies due to the virus disease, has tended to offset to some degree - perhaps only to a slight degree - the unfavourable development by which it was caused.

Also, where the favourable change in terms of trade is the result of a restriction in the supply of exports, natural or deliberate, the reduction in the total volume of foreign trade may force domestic resources into less productive employment - less productive than exports were even at the previous lower [1] price level. In this case, too, the total effect of the "favourable" change in terms of trade on the under-developed country may in fact be unfavourable, when shifts in resources from exports to domestic production are taken into account. Where exports are agricultural, and resources are shifted into industry as a result of the reduced exports, the effect may, of course, be expected to be favourable in under-developed countries that utilize appropriate indigenous resources for development. Nevertheless, analysis of changes in terms of trade should be considered and evaluated jointly

1/ Lower that is, relative to imports.

/with changes

with changes in the quantum of foreign trade. It is only when improved export prices relative to import prices are not attributable to reduced volume of exports that results are uniformly favourable.

Secondly, the benefits of improved terms of trade may well be wasted in the form of unemployment and under-employment and may not lead to higher national income or more rapid economic development. For instance, the "favourable" changes in United Kingdom terms of trade between the first and second World Wars, in the form of low prices of imported food and primary materials, were largely wasted through unemployment in the export industries resulting from an inability of foreign producers of raw materials and primary products - as a result of the low prices they received - to take up larger quantities of British exports. Taking into account the cumulative effects of such unemployment in export industries, the net result of "favourable" terms of trade to the United Kingdom in the inter-war period was almost certainly unfavourable. While such conditions are less likely to apply to under-developed countries it is worth stressing that the utilization of resources may be inter-related with the terms of trade.

Another limitation should be noted. For purposes of analysis of changing terms of trade, a relative fall in import prices, raising the quantum of imports obtainable for a given quantum of exports, is defined as a "favourable" factor. No further distinction has been made - or can indeed be made without qualitative evaluation - as to the recipient of the benefits in the under-developed country concerned. It is at least theoretically possible that when the terms of trade show an improvement, it will mainly benefit foreign companies operating within the under-developed country. This possibility should be borne in mind in assessing the data presented in the study, especially where the least developed and the non-self governing areas are concerned. The importance of this qualification is enhanced by the fact that, in general, the studies have shown that the prices of capital goods have risen less than those of consumption goods. The possibility cannot be excluded that this may have benefited foreign investors rather than the nationals of the under-developed country concerned. How much of the benefits to foreign companies, through the increase in their profit margins and wage-paying capacity, have subsequently been transferred to the under-developed country itself, is a matter for separate economic analysis in particular cases.

It must not be automatically assumed that the real position of a country remains unchanged if export and import prices rise in exactly

/the same

the same degree. This is only true where the total values of exports and imports are fairly well balanced; in such a case it is obvious that a rise in export and import prices in the same degree will leave the position unchanged. This, however, ceases to be true where imports are considerably larger than exports or vice versa. Under-developed countries often have import surpluses representing borrowing abroad and foreign investment. In such cases, the rise in import prices is a much more serious matter, and is not sufficiently compensated by an equal rise in export prices. Where this applies, the balance of payments of an under-developed country may seriously deteriorate, even though export and import prices rise in exactly the same degree.

The present study has been concerned with simultaneous terms of trade. That is to say, indices of export and import prices, related to the same base date, and referring to the same point of time have been computed and compared. Thus, statistical indices of terms of trade compare the change in export prices over a given period of time with the change in import prices occurring over the same period of time. This is based on the assumption that foreign trade is simultaneous in nature, i.e. that exports during a given year are exchanged for imports during the same year. In the particular period of time which is now considered, namely 1937 or 1938 to 1946, 1947 or 1948, this assumption is often not entirely accurate. A number of under-developed countries had export surpluses during the war and have had post-war import surpluses financed out of the war-time accumulation of foreign exchange. The relation between war-time price indices for primary goods and post-war price indices for manufactures, as reflected in the trade statistics of the United States and the United Kingdom, is accordingly noted in section IV of this report.

The absolute rise in the post-war price level has, however, had an additional adverse effect upon the financial resources available to under-developed countries for imports that would aid their economic development. In brief, the post-war price appreciation has depreciated the purchasing power of their foreign exchange, accumulated largely in war-time. The following table indicates the extent to which this factor applies in the cases there given. The war-time increase in the accumulated foreign exchange reserves is represented, approximately, by the difference between the figures for 1939 and 1945; the total exceeded $10,000 million. A number of countries have since expended all or part of the war-time accumulation; to this extent, the comparison of their export prices during the war period with their import prices during the

post-war period applies. The assets remaining at the end of 1948 are, however, generally very much larger than those held in 1939. To the extent that they may not be necessary for currency stabilization, and may therefore be expended for imports for economic development, their purchasing power is now much reduced as compared with the period during which they were accumulated. On the other hand, if the analysis is made prior to the beginning of the second World War, it is evident that the rise in prices has lightened the burden of pre-war indebtedness on under-developed countries.

/Table A-1

Table A.- 1. Holdings of Gold and Foreign Assets of Under-developed Countries 1939-1948 (end of period)

(Millions of United States dollar equivalents)

	1939	1945	1948 (June)
Argentina a/	486	1663	813
Bolivia	-	38	31
Brazil	71	708	783
Chile	33	110	50
China b/	167	582	156 c/
Colombia	25	180	98
Costa Rica	3	9	9
Cuba	25	579	901
Dominican Republic	5	45	38
Ecuador	4	33	25
Egypt	184	1370	1423
El Salvador	9	31	37
Guatemala	11	45	53
Honduras	1	2	2
India	616	5315	4915
Iran d/	42	227	251
Iraq e/	24	176	151
Mexico	39	324	99
Nicaragua	2	7	11
Paraguay	1	10	11
Peru	25	49	43
Romania f/	152	269	217
Turkey	38	287	216
Uruguay	76	246	357
Venezuela	59	246	357
Total	2098	12557	10958

a/ Data for 1939 through 1941 represent gold and "net" foreign exchange.

b/ Official and private holdings of short-term assets in the United States, as reported by United States banks. Data throughout the period include Manchuria.

c/ May, 1948.

d/ Annual data are as of the last fortnightly statement in March; monthly data are as of the last fortnightly statement in each month.

e/ Long-term foreign holdings (including small amounts of foreign exchange) of Iraq Currency Board.

f/ National Bank gold holdings only.

/Source:

Source: International Monetary Fund, International Financial Statistics, Vol. I, No. 10, October 1948. For detailed notes and explanations reference is made to this publication. In general, the figures include gross holdings of gold and short-term foreign assets of treasuries, central banks, exchange stabilization funds and other official institutions. When available, the gross long-term foreign assets of official institutions and the gross foreign exchange holdings and long-term foreign assets of banks other than the central bank are also included. The amounts of foreign exchange holdings included ordinarily cover foreign currencies, bank deposits abroad, payment and clearing agreement balances and short-term foreign bills and securities. Generally, short-term bills and securities are those issued with an original maturity of less than one year; drawing rights in the International Monetary Fund, undrawn portions of foreign loans and similar rights to incur foreign debts are not considered to be foreign exchange assets.

The discussion of the economic implications of changing terms of trade has been conducted from the viewpoint of the effects on under-developed countries. It is obvious that the interests of the industrialized countries and the effects on them of changing terms of trade are different. An improvement in terms of trade from the point of view of one group, by definition, is equivalent to a deterioration in terms of trade for the other group. However, it must not be taken for granted that the conclusions in the preceding section necessarily apply in reverse to the more industrialized countries. Their internal structure and their domestic problems are very different from those of under-developed countries.

There are likely to be differences, as well as similarities, in the effects of like changes among different countries in their terms of trade. Among industrial countries in particular, the effects of deteriorating terms of trade will be quite different in countries confronted with a serious balance of payment problem from other cases.

A long-term deterioration in terms of trade, such as has been found to obtain for primary producers over a long period, may be an effect of differences in the rate of increase in productivity in the production of primary commodities and manufactured articles, respectively. If we can assume that the deteriorating terms of trade for under-developed countries reflect a more rapid increase of productivity in primary commodities than of manufactured goods, the effect of worsened terms of trade would, of course, be less serious. It would merely mean that, to the extent that primary

commodities are being exported, the effects of increased productivity are being passed on to the buyers of primary articles in the more industrialized countries. Although statistical data on differential rates of increase in productivity of primary production in under-developed countries, and production of manufactured articles in industrialized countries, are almost entirely lacking, this explanation of the long-term changes in terms of trade which were observed in this study may be dismissed. There is little doubt that productivity increased faster in the industrialized countries than in primary production in under-developed countries. This is evidenced by the more rapid rise in standards of living in industrialized countries during the long period covered, from 1870 to the present day. Hence, the changes observed in terms of trade do not mean that increased productivity in primary production was passed on to industrialized countries; on the contrary, they mean that the under-developed countries maintained, in the prices which they paid for their imported manufactures relative to those which they obtained for their own primary products, a rising standard of living in the industrialized countries, without receiving, in the price of their own products, a corresponding equivalent contribution towards their own standards of living.

No attempt has been made in the preceding study to analyse the causes of the continued downward trend over the long period in the prices of primary products, relative to manufactured articles. In another Secretariat study submitted at the same time as this report, an analysis is made of "Capital Movements During the Inter-War Period". In this document, attention is drawn to the fact that, at least until 1929, investment in under-developed countries was largely devoted to the expansion of production and distribution of primary materials for consumption in more industrialized countries. It is possible that the stimulation of production of primary products, through foreign investment, was a contributing factor in the relative decline of the prices of primary products. This, of course, does not in itself prove that such investment was not useful to the under-developed countries concerned and without further study it could not even be definitely stated that there was in fact a connexion between the process of foreign investment obtaining before 1929 and the changes in terms of trade observed in this report.

Finally, attention may be drawn to the ambivalent nature of the effects of unfavourable terms of trade on economic development. On the

one hand, low prices for primary materials relative to imported manufactured goods normally are, or should be, an added incentive towards industrialization. On the other hand, they diminish the resources available for financing economic development. In this report, stress has been laid on the second, unfavourable, aspect of deteriorating terms of trade. How far this factor has been offset or mitigated by the added incentive given towards industrialization is another question which requires separate exploration.

APPENDIX B. STATISTICAL PROBLEMS IN MEASURING TERMS OF TRADE

Sources of Statistics.

Considering their importance as a factor in determining the real income of countries, statistical information on terms of trade is surprisingly meagre. Internal price statistics are more readily available than export and import prices, even though the former do not have as direct an effect on real income of countries as the latter. This absence of official statistics regarding the terms of foreign trade may be partly due to the statistical pitfalls involved in the use and interpretation of such figures. No single country, however advanced its statistical organization may otherwise be, publishes regular official statistics of its terms of trade with other individual countries or with individual economic regions of the world. This study is based upon the trade statistics of the countries covered in the several sections of the report. The use of these trade statistics for the derivation of comparative price (unit value) indices and terms of trade analysis is subject to a number of qualifying technical reservations, the most important of which are dealt with below. These qualifications of the data lead to two general reservations that have been taken into account in using the data in the foregoing report: (a) Relatively small statistical differences cannot be accorded any significance in themselves; and (b) care must be taken to validate the apparently significant statistical differences, by the test of internal consistency of the statistical findings and also by considering related facts as they may support or qualify the statistical findings.

Cost of Shipping, Transport, Insurance, etc.

In general, the more developed countries tend to have more detailed statistics relating to terms of trade generally, and price trends of different classes of goods in particular, but their utilization raises specific difficulties. Almost all countries value their exports at the point of exit; that is to say, the export prices of manufactured goods from the industrialized country are exclusive of shipping charges and cost of transport, insurance etc., yet the latter are generally an additional charge on the resources of the under-developed country, since shipping etc. is almost entirely in the hands of the more developed countries. On the other hand, many industrial countries value their imports of primary materials from the under-developed countries inclusive of shipping charges to the point of importation; hence the recorded prices include an element which generally represents a payment not to the under-developed country, but to the shipping lines, insurers etc., of the

/same or some

same or some other industrialized country. This applies to the United Kingdom practice of valuing imports, but not to the United States. To that extent the United States import prices are better indicators of the prices actually received by under-developed countries than the United Kingdom import prices. From this point of view, it is preferable to use the trade returns of the under-developed countries themselves, since their import values generally include, and their export values exclude, shipping charges.

However, since the present report is based on price ratios and price indices rather than on actual prices, it follows that in actual fact the statistics of the more developed countries can be accepted as a true indication of the changes in prices received or paid by their less developed trade partners, provided we can assume that cost of transport, etc. has changed in the same direction and in the same proportion as the general level of prices during the period for which the changes in terms of trade are being determined. The actual unit prices on which the statistics derived from United States and United Kingdom data are based are distorted (if, as in this report, the situation is viewed as it affects the under-developed countries by the exclusion of shipping charges in the case of the exports to the under-developed countries) and, partly, also by the inclusion of the shipping charges in the case of imports from them. Yet the price ratios between two dates on which a study of changes in terms of trade are based accurately reflect the real changes if the distorting element has remained constant in relative importance. Moreover, since cost of transport, insurance etc. represents a fairly small part of the total price in the normal case (about 10 per cent in pre-war world trade as a whole) it follows that the disparity between changes in the cost of transport and changes in other prices would have to be considerable in order to produce serious distortions of the price ratios and seriously to affect the conclusions drawn from them. In the case of some types of goods shipping charges account for a much larger proportion of total costs than the average. In such cases, a marked disparity in the change in shipping charges as compared with the commodity prices, would be of some importance. There is however, no evidence that changes in cost of transport have been altogether disproportionate to other changes in prices. Hence in actual practice there is no reason to discard the statistics of industrialized countries. Where there is reason to believe that the costs of transport etc. are particularly important and that they have changed disproportionately to other prices, separate investigation would be required to cover this

/point, but

point, but information on movements of shipping rates, transport costs, etc. is very unsatisfactory. Further, the cost of handling, discharging and distributing imported commodities in under-developed countries can be very serious, especially where harbour and transport facilities are insufficient. The actual prices (wholesale as well as retail) of imported commodities may not only be much higher than import unit values but may also show different rates of change.1/ For this reason, indices of domestic prices of import-type or export-type commodities have not been used in this report.

Changes in Quality

There are other major statistical pitfalls against which it is necessary to be on guard, in studying changes in terms of trade over a lengthy period, or even between 1937 or 1938 and the present date. Statistical data often fail to make due allowance for changes in quality. Manufactured goods are more subject to changes in quality than food and primary materials. In normal times, the general tendency is towards an improvement in quality and efficiency of manufactured goods and especially of vehicles and machinery. Hence in normal times, studies of changes in terms of trade between under-developed countries and more highly developed countries tend to be affected by a systematic bias towards making changes appear to be more unfavourable or less favourable to the under-developed countries than they really are unless the manufactured goods selected are of a standardized nature. On the other hand, changes in quality during the last ten years are just as likely to be in the direction of lower quality, and hence might well impart the opposite bias to the foreign trade statistics. Such qualitative facts cannot easily be isolated; in general in analyzing the relative price trends of primary materials and manufactured goods, it is assumed that quality is unchanged, or at least, in the case of aggregates, that changes in quality will cancel out. Shifts in sources of supply often involve changes in quality. A special case of differences in quality, specially important in the case of machinery, is the distinction between new and up-to-date and second-hand or obsolete types, all covered by the same trade description; the latter types may represent war surplus. It is impossible to determine how far the inclusion of such items may have contributed to the relatively low prices

1/ For an analysis of this factor as it affects Indonesian terms of trade, see E. A. de Graff "De groothandelsprijzen in Indonesie in 1947", Economisch-Statistische Berichten, 10 November 1948. According to the data given in this article, unloading cost, import tariffs, transport costs to the interior and the profit margin of the importer added over 90 per cent to the c.i.f. price of imported commodities as compared with only 23 per cent in 1938.

for capital goods described in this report.

Changes in Composition

The problem of change in quality assumes special importance in the case of commodity classification that include goods which are not strictly homogeneous in character. In this case, a change in unit values, which is taken as evidence of a change in prices, may merely be the result of a change in the proportions of the different qualities, grades or sizes of the same articles. Very few commodities are completely homogeneous. Where calculations of terms of trade or prices of capital goods are based on unit values of seriously heterogeneous commodity items, serious distortions of true price changes are possible. Where the calculation is in terms of aggregates, some hope may be placed on cancellation of errors. Tests undertaken for the purposes of this study, as well as studies of changes in prices of aggregates of goods of given composition, lead to the conclusion that confidence may be placed in results obtained by a study of unit values. Some items, however, lack homogeneity to such an extent that they must be omitted. Although the substitution of genuine price quotations for unit values in the case of capital goods and other articles exchanged by foreign trade seems tempting, such substitution is not only virtually impossible over a wide field but it also introduces substantial new sources of error of its own. Whereas changes in composition as between different commodities can be taken care of by appropriate weighting, this method cannot extend to changes in composition which occur under the cover of individual commodity descriptions. Detailed descriptions and sub-divisions by size groups, etc. may reduce the errors involved.

Unit value indices, upon which this study has mainly relied, are obtained from trade statistics reporting value and volume of the aggregate of all products, or of the aggregate of products in a given defined group or class. The composition of products traded in the aggregate or in any defined group, changes, however, from time to time. Generally, a country reports statistics on its aggregate imports and exports and on major groups such as foods, textiles, chemicals and manufactures and also machine tools, transportation equipment, electrical machinery, etc. In a number of cases, the data are also reported for a more detailed classification of sub-groups or even commodity groups. In the case of the United States trade statistics, for example, the complete classification runs to about 5,000 categories, the most detailed representing "commodities".

Even the finest break-down in any classification, i.e. commodities, does not represent articles so strictly specified as an item for which a

/price may be

price may be quoted or contracted in a trade transaction. The article purchased at a given price is necessarily a particular grade of, say, wheat or corn, stell ingots or bars or billets, each of given specification, or a given type of machine made according to a more or less complicated list of specifications. Commodities reported in trade statistics are, however, even in the case that is most homogeneous in its content, a combination of various grades and specifications of the same kind of article, say wheat or cotton. The classes of products separately reported among the primary products are, moreover, generally more homogeneous than those reported for manufactured products. Accordingly, the changes over a period of time in the average unit value may reflect changes in prices of the particular things in the group, or changes in the composition of the group or commodity, or a combination of the two.

The possibility that changes in composition affect the unit value index depends in the first place upon the homogeneity of the particular items comprised in the group under consideration. Thus, for example, steel shapes and forms, reported in value and tonnage, comprise products made in somewhat different grades of the metal or products requiring different degrees of fabrication. There is, therefore, a different order of value per ton for different shapes and forms included in the total. If then, the composition of forms in two years change so that one order of unit values increases in proportion to the total and another declines, the unit value index would reflect that change even if prices remained constant; and if prices changed, the change in composition would offset or exaggerate the actual price change.

The unit value indices for the aggregate and for the classes of goods distinguished in this study have, in so far as feasible, been computed by weighting individual classes or commodities. The influence of changes in composition have thereby been reduced to a practical minimum. It is, however, impossible to eliminate the effect of changes in composition which may have occurred within the groups or commodity classes that are the lowest common denominator of the given classification of available trade statistics. It is therefore necessary, in interpreting these data, to consider the homogeneity of the commodity groups as defined, and also to make reservations with respect to the significance to be accorded the changes in unit value that are statistically indicated.

Accuracy of Unit Values

Unit values derived from the official statistics are generally based on price declarations made to customs officers at the time of export or import. It should be realized that at the time of export or import the

/prices which

prices which the goods are going to fetch at the time of actual sale are not always known, and the price declarations which serve as a basis for foreign trade statistics often are the market valuation obtaining at the dates of entry of imports or exit of exports in the countries of origin rather than the prices actually obtained. Moreover, in the case of imports (and less frequently also for exports), there is an inducement for importers or exporters to understate values wherever an ad valorem tariff is payable on imports or exports. The degree to which declared value corresponds to actual prices in such cases will depend on the efficiency and vigilance of the customs service. Where no tariff, or a specific tariff, exists, there is no incentive to check value declarations; hence the values declared may be rough estimates or even arbitrary guesses. Where foreign exchange control exists, exporters may understate the prices obtained, in order to avoid the surrender of foreign exchange earned.

The prices of goods which are exported or imported without the knowledge of customs officials are of course entirely omitted from any available figures. Moreover, in many countries the prices of goods imported and exported on government account are also omitted from the foreign trade statistics.

Where export and import controls and licensing exist, further sources of error are found. Where the license for exports or imports is conditional upon a price criterion (which may be either a minimum or a maximum price criterion) the price declared may deviate from the real price obtained or paid in order to fit the transaction into the existing regulations. Where some articles are controlled or limited, an article within the controlled system may be listed as one outside the system; to illustrate, cast-iron soil pipe may be shipped as concrete pipe. Where such fraudulent listings escape the vigilance of the customs officials, the unit values present a misleading picture.

In view of all these and other statistical pitfalls in assessing and interpreting price changes in foreign trade, it will be understood that the results of any investigation must be accepted with a considerable margin of error. None but marked or closely investigated changes in price relations can be taken as firmly established.

Weighting of Indices

A calculation of exports and import prices, whether globally for all exports or all imports or sectionally for given classes of exports and imports (such as capital goods or primary articles), requires the combination of price ratios for individual commodities - "price relatives" -

/into

into index numbers, by a process of averaging. This process of averaging, in turn, requires the assignment of weights to the individual commodities which enter into the group or global indices; evidently, the individual commodities cannot be treated as being of equal importance. In assigning such weights to individual commodities, the difficulty arises that the relative importance of different commodities in exports and imports is not constant over periods of time and may be subject to violent variations. In other words, different results will be obtained - sometimes violently different results - according to whether we revalue pre-war trade - such as 1937 or 1938 trade - at post-war prices and rest our calculations on indices obtained in this manner, or whether we revalue post-war trade - such as 1946, 1947 or 1948 trade - at pre-war prices.

It should be clearly understood that there can be no single "true" index number of export or import prices. The impossibility of finding and presenting a singly "true" index number and therefore a single "true" figure for changing terms of trade is not due to any deficiency in the statistical data used or the statistical technique employed. It is a logical impossibility.1/

The question "What are the 'true' changes in terms of trade?" is essentially unanswerable in that form. All that can be attempted is to find the answers to two other questions which are closely related to that question, although they are not identical with it. These two questions are the following:

(a) If the under-developed countries had continued to export and import goods in their pre-war composition, how did the subsequent changes in price relations affect their terms of trade? Would the under-developed countries have been better off or worse off than they actually were if their pre-war trade had been conducted at post-war prices? Did the balance of price changes which has since occurred leave the under-developed country concerned better off or worse off as a net result?

(b) With the composition of trade of under-developed countries as it actually is now, at the current post-war date of the analysis, the question may be asked: How has the under-developed country been affected by price changes during the preceding ten or more years,

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1/ The only case where we can calculate a single "true" index number would be a case in which either the relative weights of the various commodities combined in our index remained exactly unchanged or else in which the prices of the individual articles included in the index changed in the same direction and in exactly the same degree. It is hardly necessary to say that this case is so improbable as to border on the impossible and it certainly has not occurred in any of the analyses undertaken for the purpose of the present study.

/beginning with

beginning with the pre-war base date? Would it be better off or worse off than it actually is now if its post-war trade had been conducted at pre-war prices throughout?

The first of these two questions is answered by indices calculated on pre-war weighting, (also known as a "Laspeyres" index) the second by indices based on post-war weighting (also known as a "Paasche" index). Both questions which these different indices answer, are meaningful and both are of equal significance. Hence, wherever possible, indices should be based on both of the alternative weighting systems.

Where the results obtained by the two weighting systems - i.e. the answers to the two distinct questions distinguished above - coincide or roughly coincide, this means that the changes in composition of exports and imports, during the period over which the change in prices is measured, are not systematically related to the changes in prices themselves. Where the post-war weighted index is higher than the pre-war weighted index, this shows that the balance of trade has shifted towards commodities which have increased in price more than the average. The opposite applies where the post-war weighted index shows a lower figure than the pre-war weighted index. Hence it is desirable to calculate both indices, not only because they are both significant answers to meaningful questions, but also because the relationship of the two indices convey information about the inter-connexion between price changes and the shifts in the composition of exports and imports of under-developed countries; in short the two indices become a useful instrument of analysis.

The two indices may be combined by the use of the "ideal formula" which is the geometric mean of the two indices. This method is often used by the United States Department of Commerce. It has the advantage of resulting in a single figure for presentation, but the disadvantage of resulting in a figure which is not based on any clear-cut historical composition of trade.

The two price indices obtained on pre-war and post-war weighting are not the only ones which can be computed. It would be possible, for instance, to draw up a schedule ("targets") of exports and imports of under-developed countries as they should be in the light of their development programmes and prospects and calculate the effect of international price changes on the terms of trade of under-developed countries for this (or any other) hypothetical composition. This, however, is too speculative for the purposes of the present study which has throughout been confined to price indices for the actual pre-war and the actual post-war composition of the

/trade of

trade of under-developed countries. The special emphasis laid in this study on the prices of capital goods will, however, make it possible in some degree to make some mental adjustment to the results obtained, so as to allow for the possibility that development is speeded up and the proportion of capital goods among the imports of under-developed countries is increased.

While in the general case the two indices obtained on pre-war and post-war weighting are of equal significance, this does not apply to each particular case. Where the post-war composition of exports or imports of the under-developed country is highly abnormal, perhaps as an aftermath of war destruction and dislocation, it is natural to attach more significance to the index obtained on the pre-war composition of trade. Some indication of the relative significance attaching to the two indices may be found in a comparison of the quantum (i.e. economic volume or value at constant prices) of exports and imports at the two dates. Where the quantum is much reduced below normal there is a presumption that composition may also be abnormal, since the abnormal reduction is not likely to affect all commodities in the same degree. For this reason, price indices of export and import prices should be evaluated in relation to the changes in the quantum of exports and imports of the under-developed countries during the period of time for which price changes are measured. One of the difficulties here is that in many cases information on changes in quantum is itself derived from price changes (i.e. by adjusting changes in the value of exports or imports for changes in price); hence where the two price indices obtained by the alternative weighting systems differ, we cannot be quite certain of the precise degree of change in the quantum of trade either, and in some cases even the direction of the change in the quantum may be in doubt.

Intra-Company Dealings

Special problems of valuation arise where the imports of certain classes of goods, such as capital goods, take place on behalf of foreign companies operating in under-developed countries. Such transactions are of considerable importance in the case of a number of under-developed countries. Prices in intra-company dealings are not genuine market prices; consigner and receiver have no opposing economic interests. The only effect of the charges made to subsidiaries operating abroad for equipment and other items shipped to them is of an accounting nature; profits are shifted between the home company and its subsidiary abroad. Under-valuation shifts profits to the subsidiary; over-valuation the other way. Where the balance of advantage lies depends on such matters as relative rates of profit taxation, transfer regulations for profits in under-developed countries, etc. Some reference

/is made to

is made to such intra-company transactions in part IV, above in connexion with price changes of United States capital goods exported to a number of under-developed countries. There is necessarily a somewhat arbitrary element in valuation of consignments in intra-company dealings.

Valuation of Commodities

The most recent international agreement on the subject of international trade statistics is that contained in the International Convention signed in Geneva in 1928. That convention contained certain provisions concerning the system of valuation. The relevant paragraphs are as follows:

"(II) There shall be maintained or established the system of valuations known as "Declared values", that is to say, values declared by importers and exporters (or their duly recognized agents) in respect of each individual transaction. Further, with a view to obtaining accuracy in statistics of external trade, such values shall be subjected to verification and systematic checking.

"(III) (a) For this purpose values at the frontier (land or sea frontier as the case may be) shall be employed; that is to say, in the case of imports, the value at the place of despatch plus the cost of transport and insurance from the place to the frontier of the country of import, and, in the case of exports, the value free on board or free on rail or road vehicle at the frontier of the country of export.

In the case of imports, import duties, internal taxes and similar charges imposed in the country of import shall be excluded from the values. In the case of exports, export duties, internal taxes and similar charges imposed in the country of export shall be included in so far as they in fact remain charged on the goods exported.

(b) When in any country ad valorem duties are imposed on imports or exports, the values ascertained in conformity with the methods prescribed in the fiscal legislation of such country for the assessment of these duties may be used for the purposes of the statistics above. Similarly, in any such country, the values ascertained by the application of the same methods may be employed in respect of goods exempt from duty or subject to specific duties. When this course is followed in any country, its statistics must show clearly the method of valuation adopted and should give at least an annual, and if possible a detailed, estimate of the values on the basis of the method of valuation described in paragraph (a) above."

/APPENDIX C

APPENDIX C

PRICE RATIOS

UNITED STATES EXPORTS OF CAPITAL GOODS 1947
(1938 = 100)

Commodities which have increased in price:

Most (Index more than 300)

Motor trucks, buses and chassis (second-hand)	626
Sodium hydroxide	469
Glycerin	415
Merchant vessels	405
Lawn mowers	404
Butanol	364
Coal tar pitch	359
Castor oil	340
Nickel silver	333
Butyl acetate	329
Zinc ore concen.	322
Passenger cars (second-hand)	321
Hydrochloric acid	321
Sodium carbonate	312
Charcoal and carbons	304

Heavily (Index 250 to 300)

Ironoxide for paints	294
Galvanized wire	285
Litharge	281
Electric fans	265
Red lead	263
Textile specialty compounds	261
Wire nails	258
Calcium chloride	256
Ammonium sulfate	256
Wheelbarrows	252

More than average (Index 200 to 250)

Copper wire	245
Alloy steel sheets, except stainless	244
Dextrine	242
Barbed wire	242
Scrap brass and bronze	234
Electric locomotives	234
Laundry soap	233
Rubber covered wire	225
Weatherproof wire	225
Wire rods	224
Blasting caps	218
Nitro and aceto cellulose	217
Scrap copper	217
Mineral-earth pigments	215
Woven-wire fencing	213
Iron or steel-wire	212
Wood screws	211
Table and household utensils, flatware, etc.	209
Refined copper	205
Rock drills	203
Concrete mixers	202
Pectin	201

Average (Index 180 to 200)

Concrete reinforcement bars	200
Water and other storage tanks	199
Battery chargers	199
Electric motor-driven devices	199
Mine hoists	199
Prepared fertilizer mixtures	198
Adding machines	197
Copper pipes and tubes	193
Hay and manure forks	191
Benzol	191
Methanol	191
Electric refrigerators	190
Plumbers' brass goods	188
Solder	188
Bus chassis	188
Portable typewriters	187
Carbon black	186
Dry batteries exc. flashlight	186
Putty and paste wood filler	185
Iron and steel forgings, no alloy	184
Vises	182
Sodium bicarbonate	181
Tanning specialty compounds	181
Coal-tar	181
Brass pipes and tubes	181

Less than average (Index 150 to 180)

Brass wire	180
Nicotine sulfate	180
Calculating machines	179
Powdered soap	179
Ironpipe fittings	178
Iron and steel plate, no alloy	178
Cast-iron screwed pipe fittings	177
Horseshoes and calks	176
Tin and galv. hollow ware	176
Windmill pumps	176
Steel bars, no alloy	174
Acetone	174
Direct current generators	173
Wind-driven generators	172
Pig-iron	171
Iron sheets, black	171
Sodium silicate	171
Iron sheets, galv.	170
Typewriters	169
Hayrakes	169
Ore concentrates	168
Steel sheets, galv.	167
Detachable motors	166
Wagons and drays	166
Leather stains	166
Gear-cutting machines	166
Iron bars	165
Plows	162
Steel sheets, no alloy	162
Food-grinding machines	161
Brass and bronze plates and sheets	160
Alloy steel excl. stainless	160
Steel castings, no alloy	159
Steel castings, alloy	159
Nitrogenous phosphatic fertilizers	159
Babbit metal	159
Sodium phosphate	158
Shoe polishes	158
Aluminium table and kitchen utensils	157
Derricks	156
Zinc oxide	156
Safety fuses	156
Ready-mixed paints	155
Titanium dioxide and pigments	155
Carbon bisulfide	155
Furniture polish, floor wax	155
Sprocket chains	153
Mowers	153
Copper sulfate	153
Radio receiving sets	150

Little (Index 120 to 150)

Scouring soap	149
Hammers and hatchets	149
Locomotives	149
Lithopone	148
Metal beds and springs	147
Metal polishes	146
Quicksilver, mercury	146
Road rollers	145
Pyroxylin and film scrap	145
Aluminum sulfate	145
Axes	144
Safety razors	143
Grain harvestors	142
Boiler plate	141
Calcium carbide	140
Telephone instruments	139
Measuring meters	139
Bolts, screws, nuts, etc.	139
Skelp, iron or steel	139
Creosote	139
Other marine engines	138
White mineral oil	138
Other soap	138
Other chemical pigments	137
Nitro and aceto cellulose solutions	137
Distribution transformers	137
Fabricated iron and steel plates	136
Flashlight batteries	135
Motorcycles	135
Other aluminum compounds	134
Pyroxylin sheets, rods	134
Radio tubes	134
Flashlights	133
Tabulating machines	133
Tinplate	133
Pneumatic portable tools	132
Nitrogeneous fertilizer materials	131
External grinding machines	131
Alloy steel sheets, stainless	131
Nickel-chrome wire	129
Steel bars	128
Tin cans	128
Coal cutters.	128
Freight cars (over 10 tons)	125
Threshers	123
Synthetic chemical agents	122
Boric acid	122
Bicycles	122
Combines	121
Safety razor blades	121

Increased least or dropped (Index under 120)

Internal grinding machines	119
Iron and steel chains	119
Pliers, etc.	118
Other rubber compounding agents	118
Flood lights	116
Tubes, moldings etc.	115
Excavators	115
Dry-cell batteries	114
Dynamite	114
Printing presses	112
Baking powder	111
Padlocks	110
Iron ore and concentrates	108
Alloy steel, stainless	108
Terneplate	108
Household water systems	108
Feed cutters, grinders	108
Alloys, steel forgings	107
Turbine pumps	106
Rubber compounding agents	104
Crude coal tar products	103
Aluminum foil and leaf	103
Pushcarts and hand trucks	102
Metal working compounds	101
Pyroxylin film base	101
Cellulose acetate film base	101
Water softeners	100
Rotary pumps	100
Other alcohols	100
Grinding machines (surface)	99
Seamless black pipe	99
Gasoline engines	98
Other sodium compounds	97
Cleaning compounds	96
Portable air compressors	93
Hoists	93
Ammonia	91
Centrifugal pumps	91
Hinges and butts	87
Other ammonian compounds	86
Power transformers	85
Typesetting machines	85
Powder explosives	69
Scissors	64
Electrical recording instruments	37
Railway motors	34
Dry and wet cell primary batteries	34
Tractor engines	31
Searchlights	12