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PREFACE

The present volume is a continuation of the *Memorandum on Production and Trade*, of which the first edition was published as one of the preparatory documents for the World Economic Conference in 1927 and four editions have since been issued. In order to avoid confusion with the *Memorandum on Trade and Balances of Payments*, the title of the present publication, which is chiefly concerned with production, has been altered to *Review of World Production*. Its general scope is essentially the same as before, but certain modifications in the presentation of the statistics have been made in order to give special emphasis to the changes that have taken place in the course of the present depression.

The quinquennium 1925-1929 — a period of growing economic activity — has been adopted as base period for all the indices of production and for purposes of comparison with the course of events in the subsequent years of depression.

The brief summary of the growth of world population has been omitted, as the period covered is too short to allow any definite conclusions to be drawn regarding the significance of changes in world population. This summary will, however, be resumed as occasion arises in the future.

All the detailed tables have been transferred to the appendices and the discussion has been condensed as much as possible. On the other hand, the scope of the chapter on industry has been enlarged, and the statistical material utilised for the whole of this chapter is much more complete than in former editions. Fuller information is also given regarding the conditions in the various branches of foodstuff and raw material production.

The scope of the chapter on prices has been widened to include, not only the relative price movements of raw and manufactured products, but also the general course of wholesale commodity prices in typical countries, the behaviour of individual commodity prices on world markets and shifts in the price relationships of significant commodity groups in the course of the depression.

The detailed statistics on which the indices relating to primary products are based, as well as the detailed national indices of industrial production, have been published in the *Statistical Year-Book of the League of Nations, 1931-32*, those relating to trade in the *Memorandum on Trade and Balances of Payments, 1930*, Volumes I and III.

A summary of the main conclusions that may be drawn from the present study will be found in the introductory chapter.

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League of Nations,
Geneva, July 1932.

Director of the Financial Section and
Economic Intelligence Service.

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INTRODUCTORY.

The object of the present study is to give a general survey of the development of the production, international exchange and prices of goods in the world during recent years. In the first chapter, an attempt is made to measure the changes in the production of primary goods—*i.e.*, crude foodstuffs and industrial raw materials, in the world as a whole and in the various continents; for purposes of comparison, this survey is supplemented by a short review of the changes in the *quantum* of world trade. In the second chapter, the industrial activity of the world is studied on the basis of the composite indices of industrial production and such other information as is available in various countries regarding the activity of the most important manufacturing industries. The third chapter contains an analysis of the general movements of commodity prices in various countries and on world markets, and of the relationships between the prices of various groups of commodities.

The period covered by the present study is 1925-1931 (in the case of agricultural production in the southern hemisphere, the crop years 1925-26 to 1931-32), and an attempt has been made to deal, in particular, with the salient features of the world industrial depression since 1929. In the chapter on prices, attention is directed to the course of prices particularly during 1931 and the first months of 1932.

The indices of production, international trade and industrial activity have all been based on the average for the quinquennium 1925-1929. The continental grouping used is the same as that adopted last year. Thus North America excludes Mexico, which is included along with the whole south and central American continent and all the islands in the Caribbean Sea under the heading Latin America. Asia excludes Asiatic Russia, which is included along with all other parts of the Union of Soviet Socialist Republics under Europe. Separate figures are, however, also given for Europe excluding Soviet Russia.

SUMMARY OF RECENT CHANGES IN PRIMARY PRODUCTION, INTERNATIONAL TRADE, INDUSTRIAL ACTIVITY AND PRICE MOVEMENTS.

In Table I below, the most important indices relating to the production of primary goods (crude foodstuffs and industrial raw materials) and the *quantum* of trade are set out in parallel columns. These indices are quantitative, changes in value having been eliminated by methods described later.

Table I.

CHANGES IN GROWTH OF WORLD PRIMARY PRODUCTION AND TRADE, 1925 TO 1931.

(Base: Average 1925 to 1929 = 100.)

Continental groups	Production of primary goods (indices weighted by 1930 values)					Quantum of trade (all goods) ¹				
	1925	1927	1929	1930	1931 ²	1925	1927	1929	1930	1931
Europe, excluding U.S.S.R.	95	100	112	103	98	91	102	112	...	...
Europe, including U.S.S.R.	94	100	110	104	(100)	90	102	112	(107)	...
North America	96	98	102	93	88	91	100	110	(95)	...
Latin America	96	101	104	102	97	91	102	109	...	...
Africa	95	98	108	106	(104)	86	101	116	...	...
Asia, excluding U.S.S.R.	97	99	105	108	(102)	96	100	104	...	...
Oceania	93	99	102	110	108	96	104	103	...	...
World	95	99	106	101	96	91	101	110	101	(85/90) ²
World {	Crude foodstuffs	97	100	103	101	99				
	Industrial raw materials	92	99	111	101	91				

The above table may be supplemented by the following rough figures showing the changes in the average industrial activity during the same period :

INDUSTRIAL PRODUCTION, 1925 TO 1931.

(Base: Average 1925 to 1929 = 100.)

	1925	1926	1927	1928	1929	1930	1931
<i>Weighted averages of national production indices of:</i>							
(a) Twelve industrial countries excluding U.S.S.R. (as calculated by the Economic Intelligence Service).	91	92	100	105	112	97	84
(b) Ten industrial countries including U.S.S.R. (as calculated by the German Institut für Konjunkturforschung)	93	93	99	104	112	101	86

¹ The figures for the *quantum* of trade up to 1929 inclusive given in this table are obtained by dividing the recorded value of trade of each continental group by a world price index. The discrepancies in the movement of the prices at which trade was conducted in different continents have thus been disregarded, and the figures only aim at giving a rough idea of the variations in the *quantum* of trade. For 1930 this method proved unsuitable, and the figures for Europe and North America entered in brackets are calculated on the basis of certain special information available regarding the reduction in the *quantum* of trade of these continents in 1930 (*cf.* page 38).

² Provisional indices, subject to revision.

The evidence afforded by the statistical material analysed in further detail below points to the following conclusions, certain of which will require subsequent qualification :

(1) The world's productive activity and the *quantum* of world trade increased remarkably rapidly throughout the quinquennium 1925 to 1929. The output of primary products rose by about 11 per cent (crude foodstuffs by 6 and industrial raw materials by some 20 per cent), the *quantum* of trade, including both primary products and manufactured goods, rose by about 20 per cent and, according to the somewhat incomplete evidence available, industrial production would appear to have increased by something between 23 and 37 per cent.

There were, however, marked inequalities in the rate of expansion of different branches of industry. Those chiefly engaged in the production of producers' goods and other commodities of an investment character expanded much more rapidly than the branches supplying goods for more immediate consumption. Thus the output of mechanical and electrical engineering and electric-power stations (supplying current mainly for industry and transport) appears to have increased by over one-half, that of iron and steel, shipbuilding and motor-car industries by about 30 per cent, and that of the timber industry by almost 25 per cent ; while the development of the leather, boot and shoe industry and, still more, of the textile industries as a whole was relatively slow, not exceeding 15 and 10 per cent respectively. The development of the main foodstuff industries was probably even slower. Certain comparatively new consumers' industries, such as artificial silk and rubber manufacture, however, expanded very rapidly during this period.

(2) The general level of wholesale prices was comparatively stable in the quinquennium 1925 to 1929. This relative stability, however, concealed a condition of economic disequilibrium which gradually developed in the course of this period, though some of its root causes lay further back in time. This disequilibrium became apparent in the latter part of 1929, when wholesale prices began to fall rapidly and the previous upward trend both in the production of producers' goods and their raw materials and in world trade in industrial raw materials and manufactured articles turned sharply downwards. In 1930, the economic depression, though somewhat deferred in certain countries, became universal in scope, and in 1931 it was greatly intensified in practically every part of the world.

(3) The severity of the present world economic depression is largely due to the fact that the slump in industry was superimposed on a severe agricultural crisis. The latter crisis has been characterised by the maintenance of supply at a relatively high level in spite of a considerable falling off in demand. The world production of crude foodstuffs and raw materials of agricultural origin declined by only about 3 per cent between 1929 and 1931. The greater decline in demand is disclosed by the heavy accumulation of stocks of most staple commodities.

(4) In striking contrast to agricultural production, the output of industrial raw materials of non-agricultural origin has contracted sharply. World production of raw materials for producers' goods dropped by about 20 per cent between 1929

and 1931. The *quantum* of world trade seems to have contracted by 20 to 25 per cent; as the trade in crude foodstuffs, which constitutes a very high proportion of total trade, was relatively well maintained, the contraction of trade in manufactured articles was very much greater. Industrial production in the principal manufacturing countries, apart from Soviet Russia, shrunk by at least 25 per cent. As the national production indices on which this estimate is based include certain raw materials and semi-manufactured goods, the stocks of which have increased, the decline in manufacturing production proper was no doubt greater.

(5) The output of producers' goods has fallen much more than that of consumers' goods since 1929. The demand for certain classes of consumers' goods — principally "durable" goods and those requiring investment of savings for their purchase — has also fallen very steeply during the depression; but the output of the majority of consumers' goods — especially foodstuffs, textiles and footwear — has dropped remarkably little.

(6) The changes in productive activity have been very different from continent to continent and from country to country.

The decrease in the production of primary products between 1929 and 1931 was considerably greater in North America and Europe, excluding the Union of Soviet Socialist Republics, than in other parts of the world. But industrial production continued to expand in the Union of Soviet Socialist Republics. Owing to exceptionally heavy crops, the general index for Asia and Oceania rose in 1930. All continental groups, however, show a shrinkage of output in 1931.

Of the countries for which national production indices are available, the United States, Germany, Canada, Poland, Austria and Hungary recorded the heaviest decline in industrial activity in 1930 and 1931. Production in France and the Scandinavian countries was well maintained in 1930, but these countries were caught in the general industrial depression in 1931. After the suspension of the gold standard, some improvement was noticeable in the last quarter of 1931 in the United Kingdom, Japan and the Scandinavian countries; but there has since been some falling off. The Union of Soviet Socialist Republics, whose economic system is almost divorced from the rest of the world, expanded her industrial output throughout the whole period under consideration.

(7) The economic depression of 1930 and 1931 has most seriously affected iron and steel, shipbuilding, mechanical engineering, motor-car production and the timber industry. The output of rubber goods and industrial textiles has fallen somewhat less. Electrical engineering has suffered relatively little, and the generation of electricity appears in most countries to have risen throughout the depression. The production of artificial silk rose by almost 6 per cent from 1929 to 1931, and that of natural silk was, in general, well maintained. The cotton and woollen industries were rather seriously affected, especially in the highly industrialised countries. In almost all the non-industrial countries the newly developed textile and leather industries have either expanded during the depression or contracted relatively little. The paper industry has, in general, escaped serious

diminution of output. Building activity expanded in 1930 and 1931 in a few countries in which interest rates have remained low and general economic conditions favourable. In certain other countries, the building industry has suffered very greatly, with disastrous consequences for the numerous related trades.

(8) In the course of the depression, international trade has been increasingly affected by the heavy fall in prices, by the restriction and diversion of the international capital movements, and by the attempts made to control national trade balances. In 1930, the exchange of industrial products between industrial countries still suffered less than their manufacturing production. Their trade with primarily agricultural and raw material producing countries, which are normally importers of capital, suffered more severely. On the other hand, the trade in animal foods increased in that year, particularly in Europe. With the aggravation of the depression and of the obstacles to trade in 1931, the international exchange of goods and particularly of manufactured articles contracted very rapidly. It appears that, in that year and subsequently, the exchange of manufactured articles between industrial countries has tended to contract more heavily than the exchange of primary for manufactured goods between industrial and non-industrial countries.

(9) The general decline in gold prices which began in the autumn of 1929 continued throughout 1931 and the first half of 1932; the wholesale-price indices of most countries remaining on the gold standard were 15 to 20 per cent lower at the middle of 1932 than at the beginning of 1931. Prices showed a more or less marked tendency to rise in countries which abandoned the gold standard, but in no case was the rise proportionate to the depreciation of the external exchange value of the currency, and, since the beginning of the present year or earlier, the wholesale-price indices of most countries with inconvertible paper currencies have also tended downwards. The movement has been less regular in countries instituting foreign exchange control. In Austria and Hungary, wholesale prices have risen since the beginning of 1931, and, in most of the other countries, with the notable exception of Germany, which have nominally maintained their currencies near gold parity by control of foreign exchange operations, prices have — to the detriment of their exports — declined less than in the full gold standard countries.

(10) On world markets the price decline since 1929 has been greatest in the case of crude foodstuffs and industrial raw materials of agricultural origin; at the beginning of 1932, the prices of most cereals and textiles were from 50 to 60 per cent lower than at the beginning of 1929. Until the latter part of 1930, the prices of animal foodstuffs were relatively well maintained, but they have since fallen with exceptional rapidity. Many inorganic products have fallen less than organic commodities. In all cases, however, the decline has been great for goods which have been subject to unsuccessful attempts at monopolistic control.

(11) On many domestic markets prices have fallen much less than on world markets. Tariffs, import quotas and other special protective measures have

been responsible for this in certain cases, notably in the case of wheat. "Cartellised" prices have fallen very much less than "non-cartellised" or "free" prices. Raw materials have dropped more violently in price than manufactured goods. Over the whole period 1929-1932, the former class of goods would appear to have fallen about 50 per cent more than the latter; but, during 1931 and the first half of 1932, the fall in the prices of finished products in many countries has tended to be accelerated, while the fall in raw-material prices has slackened. The unequal fall in the prices of primary and secondary products has shifted the terms of trade against the States producing primary products. In most parts of the world, wholesale-price indices have fallen more since 1929 than the cost-of-living indices; but during 1931 there was, in many countries, a tendency for the discrepancy between these indices to be narrowed. Contrary to most previous experience, the prices of goods destined for capital equipment have fallen considerably less in price during the present depression than those of goods destined for human consumption.

* * *

Such are the broad general results to which the analysis of available data on production, trade and prices has led. They are based on statistics that are in some cases of doubtful comparability and seldom so comprehensive or so exact as to render it possible to draw conclusions of mathematical accuracy or incontrovertible finality from any single series of figures. For this reason, importance should be attached not so much to the absolute magnitude of this or that figure as to the direction towards which the whole mass of accumulated data tends to point.

I. PRIMARY PRODUCTION.

SCOPE AND METHOD OF COMPUTATION OF THE PRODUCTION INDEX.

During recent years considerable progress has been made in various countries in the statistical recording of production, particularly by means of indices showing the changes in industrial activity. Comprehensive statistics of industrial production are, however, still lacking in most countries, and, in the nature of things, even where they exist, they ignore the greater part of the production of foodstuffs. The production of foodstuffs, however, is of preponderant importance from the point of view of human welfare and for this reason should be fully taken into account in a general review of world production. For the purpose of measuring changes in world production, therefore, industrial statistics cannot be employed and recourse must be had to the output of crude foodstuffs and industrial raw materials, for which comprehensive data are available.

An index of the output of industrial raw materials affords an indirect measure of the changes in industrial production as a whole, as output normally tends to correspond to consumption. But this measure is far from accurate for two main reasons: (1) The science of industrial production is concerned largely with the discovery of means by which equal services may be rendered with a smaller consumption of crude products. Thus, in a progressive society, the volume of industrial output increases more rapidly than that of raw materials, a fact which has to be borne in mind particularly in considering movements over long periods; (2) The statistics of the production of crude products taken alone and without reference to variations in stocks may fail to reflect accurately changes in industrial activity over short periods. The supplies of vegetable products in a single year will depend primarily on the atmospheric conditions and not on the immediate industrial demand. This applies particularly to the most recent years when demand for several commodities failed to keep pace with supply and, consequently, prices dropped; in order to check the fall in prices, supplies have in many cases been kept off the market, but the natural result of the increase in stocks has been an additional pressure on prices. In Chapter II below, which is concerned with industrial production, an attempt has been made to illustrate the effects of these discrepancies by contrasting the movement of raw material output with that of a weighted average of a large number of national indices of industrial production over the period 1925 to 1931 (diagram VI). In Chapter III, the differences in price movements are analysed.

In order to measure the changes in the world production of raw products, the output of a large number of different commodities must be taken into account. Owing to the multiplicity and variety of goods that require to be considered, indices based on weight or volume statistics must be rendered comparable by expressing them in terms of some common denominator. It has been necessary, therefore, to calculate a quantitative index. For this purpose, the relative values of the various

commodities calculated on the basis of representative price quotations in a defined period have been utilised as constant weights.

The prices employed are annual averages of actual quotations in most cases for medium qualities of the various articles in leading producing countries or free markets and may be considered fairly representative of relative values on the world market. In the case of a few commodities for which actual price quotations of such a nature are difficult to obtain, the average export price recorded by the principal exporting country has been employed. The index is calculated by the aggregative system. A further explanation of the procedure adopted will be found in Appendix I.

For the reasons set forth in the preface, the annual average production in the period 1925-1929 is taken as base ; but as individual figures are given for each of these years as well as for 1930 and 1931, the index may easily be converted to the basis of any of the years covered.

In view of the changes that have taken place in relative values in recent years, it has been considered desirable to calculate the index on the basis both of prices ruling in 1925 and of those ruling in 1930. These two calculations yield in general roughly similar results. It is sufficient, therefore, to consider in the following analysis only the results obtained by employing 1930 values. Discrepancies of some importance do, however, occur in certain groups of commodities ; complete comparative figures are therefore given in the Appendices.

Sixty-six commodities, falling into two main divisions and fourteen groups, have been taken into consideration, and sub-indices have been calculated for each division and group.

List of Commodities Included in the Production Index.

CRUDE FOODSTUFFS.

Cereals : Wheat, rye, barley, oats, maize.

Other food crops : Rice, potatoes, beet-sugar, cane-sugar.

Meat : Beef, veal, pork and bacon, mutton and lamb.

Wine and hops.

Coffee, tea, cocoa.

INDUSTRIAL RAW MATERIALS.

Tobacco.

Vegetable oil materials : Cotton-seed, linseed, rape-seed, hemp-seed, sesamum, soya beans, copra, palm and palm-kernel oil (crude), olive oil (crude), ground-nuts.

Textile materials : Cotton, flax, hemp, manila hemp, jute, wool, raw silk, artificial silk.

Rubber (crude).

Wood-pulp : Mechanical pulp, chemical pulp.

Fuels : Coal, lignite, petroleum.

Metals (smelter production) : Pig-iron and ferro-alloys, steel (ingots and castings), copper, lead, zinc, tin, aluminium, nickel, silver.

Non-metallic minerals : Cement, asbestos, salt.

Chemicals (fertilisers) : Natural phosphates, potash, sulphur, natural guano, Chilian nitrate of soda, nitrate of lime (Norwegian and ammoniated), superphosphates of lime, basic slag, cyanamide of calcium, sulphate of ammonia, sulphate of copper.

The above list differs in certain minor respects from that given last year. Three commodities — viz., wine, asbestos and salt — have been added. Hops have been excluded from what was formerly the “ Colonial produce and hops ” group and combined with wine in a new group. Cement, previously given separately, is now included with asbestos and salt, in another new group (“ Non-metallic minerals ”).

Any rough division between “ Crude foodstuffs ” and “ Industrial raw materials ” must necessarily be somewhat arbitrary ; thus, some of the vegetable oils and salt, classified as industrial raw materials, are used chiefly for food. On the other hand, some overlapping is inevitable — for example, some of the cereals (viz., barley, oats and maize) are used mainly for fodder — *i.e.*, as raw materials of meat. In the case of pig iron and ferro-alloys, however, an attempt has been made to distinguish those qualities which are generally used in the manufacture of steel, and to exclude them in the calculation of the indices.

Owing to the absence of complete or sufficiently representative data, certain classes of products have had to be omitted, the most important being dairy produce, fruit and timber. Gold has been omitted from the metal group, as so large a proportion of the production is used for monetary purposes. No comprehensive figures of the production of cereals and other foodstuffs exist for China ; but the production of certain cereals in Manchuria for which data are available has been taken into account.

Provisional indices are given as far as possible for the year 1931 (1931-32). The statistics available for this year are, however, far from complete. In particular, information is lacking with regard to the agricultural production of the Union of Soviet Socialist Republics, and the production of meat, tobacco, vegetable oil materials, wood-pulp, cement and certain chemicals in many other countries. A series of provisional though probably fairly accurate indices may, however, be calculated for the world as a whole, for Europe (excluding Union of Soviet Socialist Republics) and North America, and, in respect of most group indices, for the other continental divisions as well.¹ The index figures shown within brackets are more conjectural in character than the others and may therefore be subject to greater changes when more complete and definite data become available.

TOTAL PRODUCTION.

It is convenient to show first the combined index of crude foodstuffs and industrial raw materials, weighted by 1930 values, for the world as a whole and its main continental groups.

¹ The margin of error in the corresponding provisional indices for 1930 (1930-31), published in the *Memorandum on Production and Trade, 1925-1929/30*, proved, when more complete and definite data became available, to be remarkably small. The provisional indices (both the general index and the foodstuffs and raw material indices) for the world and for Europe excluding the Union of Soviet Socialist Republics were indeed identical with the final indices for that year, and, in the case of all the other territorial divisions, the margin of error was less than 1½ per cent. With the exception of rubber, for which the basic statistics have been changed for the whole period considered, the error in the world indices for individual commodity groups was in no case greater than 2 per cent ; in most cases indeed the provisional and the final indices for 1930 were practically identical. The margin of error in the provisional indices for 1931 is, however, probably greater.

Table II.

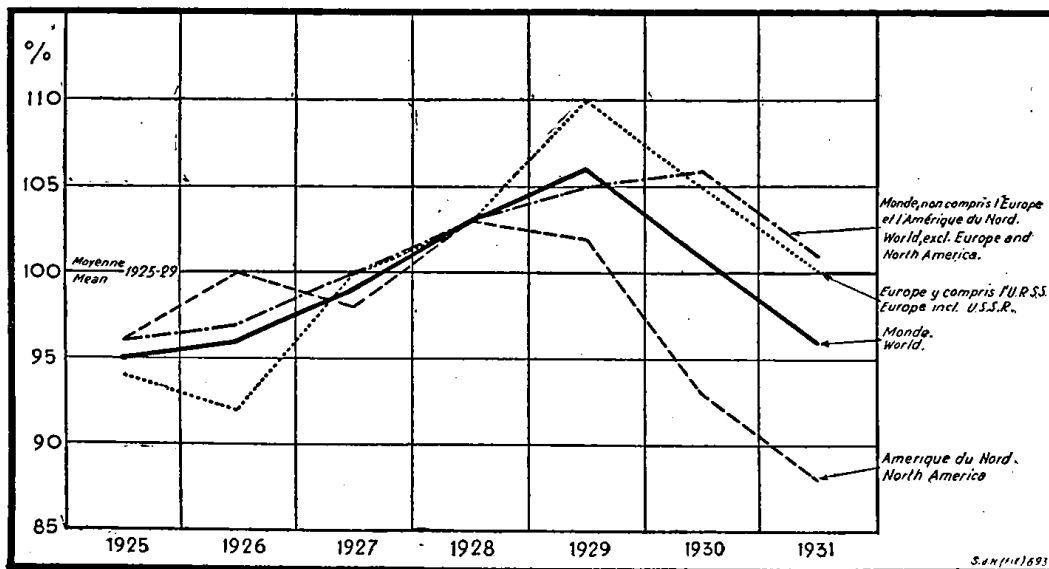
GENERAL INDICES OF PRODUCTION, WEIGHTED BY 1930 VALUES.
(Base: Average 1925 to 1929 = 100.)

Continental groups	1925	1926	1927	1928	1929	1930	1931 ²
Europe, excluding U.S.S.R.	95	89	100	104	112	103	98
Europe, including U.S.S.R.	94	92	100	103	110	104	(100)
North America	96	100	98	103	102	93	88
Latin America	96	96	101	103	104	102	97
Africa	95	95	98	103	108	106	(104)
Asia (excluding Asiatic Russia) ¹	97	97	99	102	105	108	(102)
Oceania	93	101	99	105	102	110	108
World	95	96	99	103	106	101	96

The quinquennium 1925 to 1929 represented, on the whole, a period of economic progress, during which the world's productive activity was rapidly increasing. The total increase in the production of crude foodstuffs and raw materials was 11 per cent — equivalent to an average rate of increase of 2.6 per cent per annum. The more rapid increase in European production than in that of the other continents represented in part recovery of ground previously lost.

Diagram I.

AGGREGATE PRIMARY PRODUCTION IN EUROPE, NORTH AMERICA
AND THE WORLD, 1925-1931.

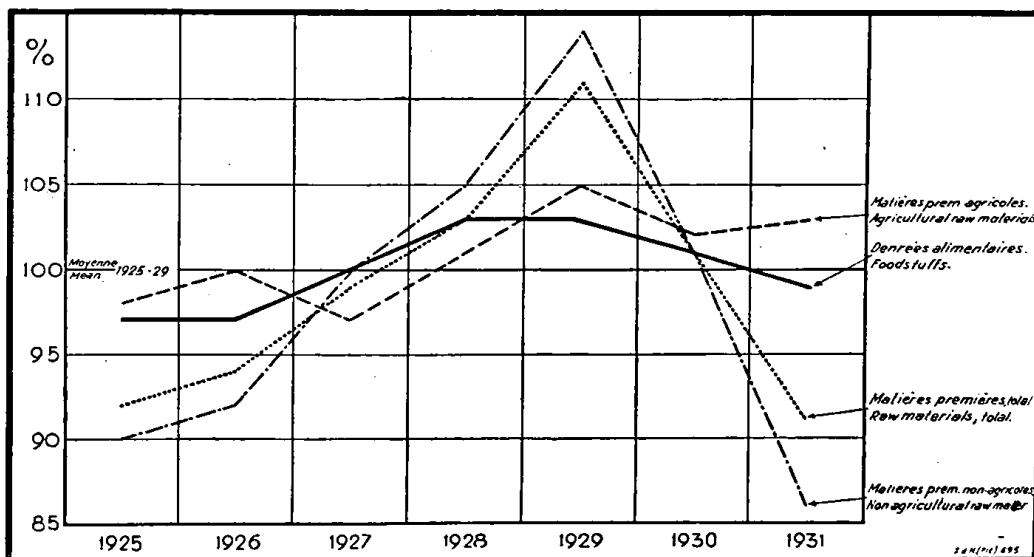


¹ Excluding also production of foodstuffs in China (except that of certain cereals in Manchuria).
² Provisional indices.

With the turn of the business cycle, production contracted more heavily in North America than elsewhere. This continent was indeed the only one whose output in 1930 fell below the average of the preceding quinquennium. Production in Europe, Latin America and Africa, though less in 1930 than in 1929, still remained well above the 1925-1929 average. In Asia and Oceania, production continued to expand in 1930 and reached its peak in that year; this was mainly due to exceptionally heavy cereal crops. As a result of these various factors, the world index declined comparatively little in 1930 — to a point somewhat below the level of 1928 — but with the subsequent intensification of the depression it fell in 1931 to a level several points below the average for the base period and would appear to have been but slightly higher in that year than in 1925. The shrinkage in North American output continued unabated in 1931; in both Latin America and Europe, apart from the Union of Soviet Socialist Republics, production dropped below the 1925-1929 average, while output in Africa, Asia and Oceania, though lower than in the previous year, remained above that average.

Commodities of agricultural origin represent nearly three-quarters of the aggregates from which the general index is calculated. The fact that the drop in the world's aggregate production of foodstuffs and raw materials was not greater than is shown above is due to the maintenance of agricultural production at a relatively high level; but as world stocks of most primary products increased heavily, the drop in consumption that has taken place during the depression has been greater than the above indices suggest.¹

Diagram II.
WORLD PRODUCTION OF CRUDE FOODSTUFFS AND INDUSTRIAL
RAW MATERIALS, 1925-1931.



¹ For fuller discussion of agricultural production, cf. League of Nations, Economic Committee: *The Agricultural Crisis*, 2 vols. (Official No. C.239.M.105.1931.II.B.). Geneva 1931.

A more detailed examination of the indices for different commodity groups which is made below will throw some light on certain major factors which have helped to bring about the general changes indicated above.

PRODUCTION OF CRUDE FOODSTUFFS.

The following table gives the indices for foodstuffs in a manner similar to that adopted in the preceding table.

Table III.

FOODSTUFFS PRODUCTION INDICES, WEIGHTED BY 1930 VALUES.
(Base : Average 1925 to 1929 = 100.)

Continental groups	1925	1926	1927	1928	1929	1930	1931 ²
Europe, excluding U.S.S.R.	98	92	97	104	110	104	103
Europe, including U.S.S.R.	97	95	98	103	107	103	(100)
North America	98	98	101	106	97	92	94
Latin America	97	97	103	102	102	101	97
Africa	95	95	101	103	107	105	(108)
Asia excluding Asiatic Russia and China ¹	98	98	99	101	104	107	(104)
Oceania	93	102	98	106	102	119	(117)
World	97	97	100	103	103	101	99

The supply of agricultural produce of vegetable origin in a given year depends on the acreage under cultivation and on atmospheric conditions. As natural factors are seldom equally favourable or unfavourable in any given year in all parts of the world and for all crops, the continental indices taken individually show wider and more irregular fluctuations than the combined world index. The fact that the production data taken for the southern hemisphere are in all cases half a year ahead of those relating to the northern hemisphere also tends, as a rule, to eliminate wide fluctuations from the world index for crude foodstuffs. Over the whole period under review this index has in fact varied within comparatively narrow limits. It rose fairly steadily, though not quite regularly, during the quinquennium 1925 to 1929 — 1.47 per cent per annum — and declined smoothly in the two subsequent years. The index number for 1927 coincides with the average for the quinquennium, and by 1931 foodstuff production appears to have fallen just under that level.

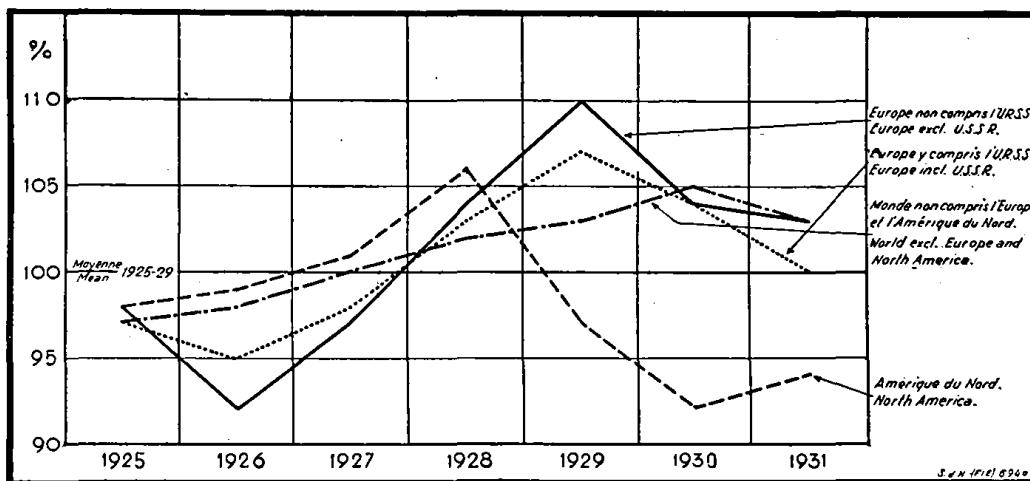
Aggregate crops of cereals and similar foodstuffs (rice, potatoes and sugar) were indeed heavier in 1930 than in 1929 in spite of a serious drought in the United States, reductions of acreage in Canada and the Argentine, and lower yields in many European countries; these factors were, however, outweighed by record crops in Oceania and the Union of Soviet Socialist Republics. The decline in the total foodstuffs index is due to the marked falling off in the output of meat,

¹ Including production of certain cereals in Manchuria.
² Provisional indices.

colonial produce (particularly coffee), wine and hops. In 1931, cereal crops were on the whole considerably reduced, increases in most European countries and in North America being more than outweighed by reductions in Oceania, Latin America

Diagram III.

PRODUCTION OF CRUDE FOODSTUFFS IN DIFFERENT CONTINENTAL GROUPS, 1925-1931.



and, above all, the Union of Soviet Socialist Republics. Some decline would also appear to have taken place in the case of meat and rice and world crops of beet sugar were heavily reduced. An improvement was recorded in the output of the remaining foodstuffs — especially coffee — but these are of relatively little importance in the total index.

While the supply of crude foodstuffs as a whole was maintained at a comparatively high level in 1930 and 1931, the decline in demand which had become noticeable towards the end of the preceding quinquennium became much more pronounced in the course of the depression; the discrepancy between output and demand is reflected in the increase in stocks and the inordinate drop in prices discussed in some detail in the following sections. Various efforts made to influence the market for certain crude food products by restrictions of output or exports eventually proved ineffective. Thus the inelasticity of the supply of these products resulted in an aggravation of the general maladjustment which appears to have been one of the main causes of the present depression.

PRODUCTION OF RAW MATERIALS.

Indices of the aggregate production of industrial raw materials are given in the following table :

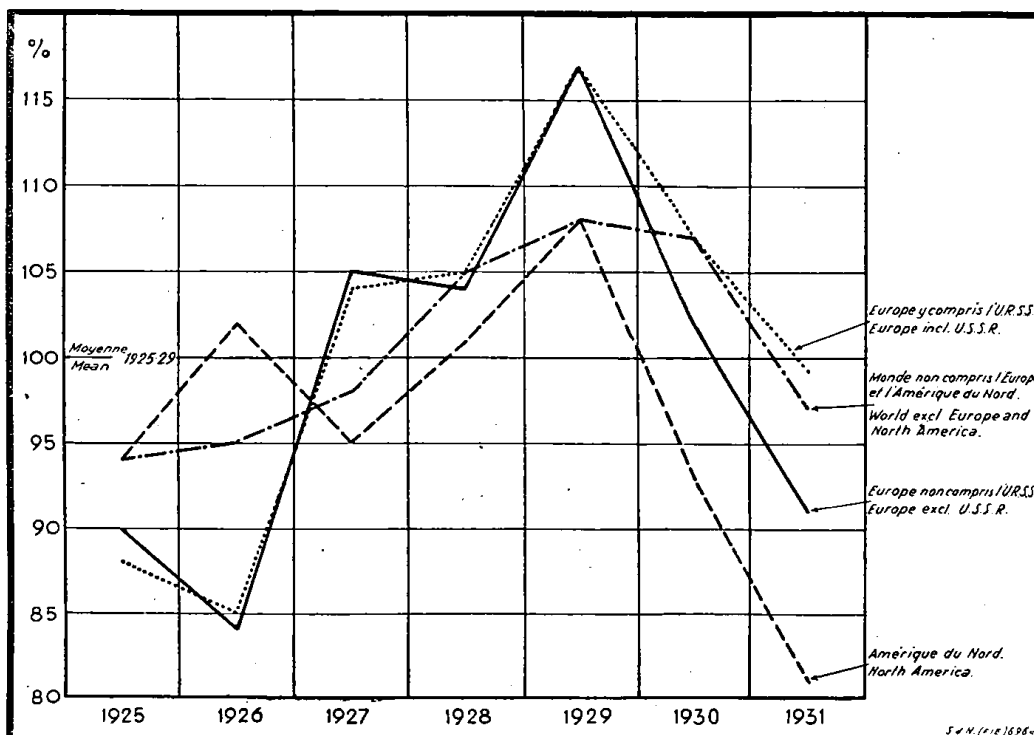
Table IV.

RAW-MATERIAL PRODUCTION INDICES, WEIGHTED BY 1930 VALUES.
(Base : Average 1925 to 1929 = 100.)

Continental groups	1925	1926	1927	1928	1929	1930	1931 ¹
Europe, excluding U.S.S.R.	90	84	105	104	117	102	91
Europe, including U.S.S.R.	88	85	104	105	117	107	99
North America	94	102	95	101	108	93	81
Latin America	92	93	95	109	111	105	...
Africa	97	96	93	104	110	108	96
Asia (excluding Asiatic Russia)	94	95	100	104	107	109	97
Oceania	93	100	100	105	102	97	95
World	92	94	99	103	111	101	91

Diagram IV.

PRODUCTION OF INDUSTRIAL RAW MATERIALS IN DIFFERENT CONTINENTAL GROUPS, 1925-1931.



¹ Provisional indices.

In marked contrast to the production of crude foodstuffs, the output of industrial raw materials experienced a rapid advance from 1925 to 1929 and a violent slump in 1930 and 1931. In the world as a whole, the production of raw materials was reduced in the course of those two years by about one-fifth, and was lower in 1931 than in any year since 1924.

The fluctuations have been much wider in Europe, excluding the Union of Soviet Socialist Republics, and North America, than in the rest of the world. With the exception of Oceania, where the production of industrial raw materials attained its highest level in 1928, the indices for all continental groups reached their peak in 1929. In that year, the European index stood much higher than those of the other continents. The drop in raw material production during the last two years under review was almost as rapid in Europe, excluding the Union of Soviet Socialist Republics, as in North America; but, as compared with the average for 1925 to 1929, output in 1931 had dropped very much more in North America (about 19 per cent) than in Europe (9 per cent) or any other continental group.

If industrial raw materials be classified according to their origin into agricultural and non-agricultural products, it will be found (see table below) that movements of the general index of industrial raw material production are chiefly determined by changes in the output of the non-agricultural products. According to the value aggregates for 1930, the share of non-agricultural products in the total output of the industrial raw materials considered amounted to 91.6 per cent in Europe excluding the Soviet Union, 82 per cent in North America and 67.6 per cent in the world as a whole. On the other hand, in Africa, Asia, Latin America and

Table V.
 INDICES OF PRODUCTION (WEIGHTED BY 1930 VALUES) OF INDUSTRIAL RAW MATERIALS
 OF (a) AGRICULTURAL AND (b) NON-AGRICULTURAL ORIGIN.
 (Base: Average 1925 to 1929 = 100.)

Continental groups	1925	1926	1927	1928	1929	1930	1931 ¹
Europe, excluding U.S.S.R.	(a) 94	88	109	88	121	84	93
	(b) 89	84	104	106	116	105	91
Europe, including U.S.S.R.	(a) 95	90	104	95	116	97	...
	(b) 88	84	104	107	118	109	97
North America	(a) 104	112	88	97	100	98	112
	(b) 92	99	97	101	110	92	73
Latin America	(a) 97	102	103	104	94	99	...
	(b) 88	86	89	113	124	110	91
Africa	(a) 99	96	92	104	109	105	...
	(b) 90	92	99	106	114	118	96
Asia, excluding U.S.S.R.	(a) 96	96	100	104	105	108	95
	(b) 89	92	100	106	113	113	103
Oceania	(a) 91	100	98	106	104	98	103
	(b) 98	98	104	102	98	92	79
World	(a) 98	100	97	101	105	102	103
	(b) 90	92	100	105	114	101	86

¹ Provisional indices.

Oceania, the share of non-agricultural products amounted, in the aggregate, to only 31 per cent of total industrial raw material production in 1930.

The contrast between the movements of the two categories of indices both for the world as a whole and for each continental group is striking, particularly since 1929. The world index for industrial raw materials of agricultural origin shows movements similar on the whole to those of the index for world production of crude foodstuffs (see Table III above). The former index rose somewhat more in the period 1925 to 1929 (average rate of increase 1.84 per cent per annum) and has since declined slightly less than the latter, but, over the whole period under review, both have varied within comparatively narrow limits. On the other hand, the world index for the production of industrial raw materials of non-agricultural origin rose very rapidly during the quinquennium preceding the depression (average rate of increase 6.16 per cent per annum) and since 1929 has dropped drastically : by 11.4 per cent in 1930 and probably by some 15 per cent in 1931. In 1929, this index stood higher than that for industrial raw materials of agricultural origin in all continental groups except Western and Central Europe (whose output of the latter class of goods is relatively of slight importance), and Oceania (where production of non-agricultural raw materials has declined since 1927) and in 1931 the non-agricultural index probably dropped below the other in all continental groups except Asia where, however, the production of industrial raw materials of non-agricultural origin is relatively unimportant. The changes reflected by the world indices may thus be taken as practically universal in character.

The index numbers of production of industrial raw materials and particularly of raw materials of agricultural origin, like those of crude foodstuffs, do not give a complete indication of the effects of the depression on the market for these products as they take no account of changes in stocks. Figures showing the rapid accumulation of stocks of some of the most important staple products which has taken place in the course of the depression are given in the subsequent sections of this chapter, and the related price movements are analysed in Chapter III.

In interpreting the continental indices given in the above table, it should be borne in mind that in many cases they are determined by a few important commodities. In the group of agricultural raw materials, for example, the exceptionally high level of the European index for 1929 and its subsequent heavy drop, are largely due to variations in the olive oil crop. The North-American index largely reflects variations in cotton production, and that for Latin America changes in the output of linseed and wool. Egyptian cotton, South-African wool and palm oil have a determining influence upon the African index, while the silk crop in Japan, output of tobacco, cotton and ground nuts in India, and shipments of rubber from the south-eastern plantations account for most of the changes in the Asiatic index. The wool clip has a decisive influence upon the Oceanic index for raw materials in general. The most important non-agricultural raw materials included in the indices are metals, fuels and chemicals. The other groups of industrial raw materials included weigh comparatively little in the indices for the world as a whole and for Europe and North America.

PRODUCTION BY PRINCIPAL COMMODITY GROUPS.

In Table VI below will be found world indices for each commodity group for the years 1925 to 1930, together with provisional indices for 1931 for most of these groups.

Table VI.

GROUP INDICES OF PRODUCTION IN THE WORLD AS A WHOLE, WEIGHTED BY 1930 VALUES.
(Base : Average 1925 to 1929 = 100.)

Groups of products	1925	1926	1927	1928	1929	1930	1931 ²
Cereals	99	99	99	103	101	101	98
Cereals and other food crops	97	98	99	103	102	103	100
Meat	95 ¹	96 ¹	100 ¹	104 ¹	104 ¹	99 ¹	...
Wine and hops	109	79	96	109	108	94	96
Coffee, tea, cocoa	88	90	111	90	120	92	106
Tobacco	99	98	96	100	106	109	...
Vegetable oil materials	95	94	104	100	107	100	105
Textiles	97	101	94	103	106	103	104
Rubber	80	95	93	101	132	125	121
Wood-pulp	86	94	100	103	117	113	...
Fuels	93	93	102	102	110	101	92
Metals	88	91	99	106	116	95	71
Non-metallic minerals	87	93	101	107	112	109	...
Chemicals (fertilisers)	88	88	93	108	123	111	...
Crude foodstuffs	97	97	100	103	103	101	99
Industrial raw materials	92	94	99	103	111	101	91
General Index	95	96	99	103	106	101	96

The first index given above is supplementary to the second which includes rice, potatoes and raw sugar in addition to cereals. Individual indices for each of the commodities comprised in the above groups are given in Appendix II, and separate indices for the production by continents of each group of commodities will be found in Appendix III.

Cereals.

Cereals constitute the most important of all the commodity groups considered ; in 1930, they accounted for more than a quarter of the aggregates upon which the general index is based.

The world production of cereals increased since the war less than most other groups. Nevertheless, the average for 1925 to 1929 was some 10 per cent. above that for the preceding quinquennium. Some years before the turn of the business cycle, however, consumption of certain cereals failed to keep pace with the increase in production. Supplies tended to outstrip demand, particularly since 1928 (in the southern hemisphere 1928-29) when world harvests were of record size. Although the aggregate yield of the following year was just above the average, the bumper crops reaped in Europe, the principal importing continent, in conjunction with the stocks accumulated elsewhere,

¹ Partly based on estimates.

² Provisional indices.

depressed the market and helped to bring about a universal slump in wheat prices. In 1930 (1930-31) total harvests were slightly more abundant than in the preceding year. Although the yield of 1931 (1931-32) was of less than average size, agricultural prices have, in general, not recovered. Various measures of artificial control—pools, farm boards, protective tariffs and milling laws — have ultimately proved ineffective in maintaining prices, especially in cereal exporting countries while, during the depression, demand has not expanded, in spite of the fall in prices.

The wheat market has been the most seriously affected. The world's wheat stocks (in millions of quintals) have varied as follows: ¹

August 1925	114.0	August 1930	220.2
August 1928	160.6	August 1931	246.0
August 1929	233.5		

The last figure is the largest in the history of the wheat trade and represents about 18 per cent. of the total world crop in 1930-31. The great inequality of crops in different parts of the world in recent seasons has largely contributed to this rapid accumulation of stocks. Of the reduction of about 147 million quintals in the 1929 (1929-30) crops, almost half was attributable to Canada, and the remainder to the three other great exporters, United States of America, Argentine and Australia. In 1930 (1930-31), a new disturbing factor arose—a bumper crop, about one-third above the average for the previous quinquennium, in Soviet Russia and the sudden reappearance of that country as a large exporter. In 1931, however, the Russian harvest was heavily reduced, and Soviet Russia ceased for the moment to be an important exporter. On the other hand, in that year the crops of Europe (excluding the last mentioned country) and Africa were nearly equal to the heavy crops of 1929. Consequently, requirements of overseas wheat by the chief European importing countries, were again reduced, and world stocks diminished but little.² The distribution of stocks has, however, undergone a marked change. Stocks held in the United States were 25.6 millions quintals higher in February 1932 than a year earlier, whereas stocks were nearly 30 million quintals lower in the other three chief exporting countries—Canada, Argentine and Australia.

Rye production is mainly confined to European countries in some of which it is a substitute for wheat. The European harvests of 1929 and 1930 were very abundant and left a large surplus of rye which has depressed the market. The market of the "feeding grains" — viz., barley, oats and maize — has been affected by the drop in wheat prices. Stocks were accumulated as early as 1928 and 1929. The yields of 1930 were less than those of the preceding years. In 1931, rye, barley, oats and maize crops were all below the quinquennial average (1925 to 1929), although the maize crop recovered from its partial failure in 1930. In spite of the considerable decrease in supplies, the prices of most cereals continued to slump in 1930 and 1931.

Rice, Potatoes and Sugar.

Rice is the staple crop of about one-third of mankind, and the depression in the rice market has greatly affected the purchasing power of the Asiatic rice-exporting countries. The output of rice increased less than that of wheat until 1929-30 and probably not more rapidly than the rice-eating population. In 1930-31, however, the total crops rose by 6 per cent. During the depression years the demand for rice has been considerably reduced. Moreover, the position of the great exporting countries (Burma, Indo-China, and Siam) has been rendered more difficult by the increase of rice production in countries which

¹ Source: Stanford University, *Wheat Studies*.

² According to the International Institute of Agriculture, the world's exportable surplus was 150 million quintals on July 31st, 1931, and is expected to be about 125 millions on July 31st, 1932.

formerly relied upon imports. Output in the former group declined in 1931-32, and the exportable surplus tended to decrease.

The yield of potatoes has been remarkably steady in the three years 1929 to 1931. The crops of 1929 were 12 per cent and those of the two following years 11 per cent above the quinquennial average (1925 to 1929). This has influenced to a considerable extent the European index of production of cereals and other food crops.

In the sugar-growing industry, a tendency for beet-sugar to regain ground from cane-sugar has been apparent since 1925-26. Beet-sugar production has been largely stimulated, especially in European countries, by protective duties and subsidies. Thus European crops (excluding the Union of Soviet Socialist Republics) increased from 63 million quintals in 1925-26 to nearly 85 millions in 1930-31. The total beet-sugar crop has shown enormous variations in recent years; in 1930-31 it reached a level not less than one-third above the quinquennial average (1925-26 — 1929-30) — mainly as a result of increased output in the Union of Soviet Socialist Republics and Germany — while the preliminary figures for 1931-32 indicate an equally heavy drop. On the other hand, the output of cane-sugar was checked, until 1928, by the restriction scheme adopted in Cuba, the largest single producer. Cane-sugar production has recently been stimulated by the propagation of a new variety of cane which has greatly increased the yield of sugar per acre. Bumper crops about 5-6 per cent above the high quinquennial average were harvested in 1928-29 and 1929-30, and the crops of the two last years under review have been very near that average.

With all the sugar-exporting countries trying to expand their markets, and the importing countries attempting to make themselves independent of foreign supplies and in fact reducing their consumption, large stocks have accumulated and prices have fallen heavily. The world stocks of raw sugar (in millions of quintals) have varied as follows:¹

December 31st, 1926 . .	37.0	December 31st, 1929 . .	57.0
December 31st, 1927 . .	41.3	December 31st, 1930 . .	71.3
December 31st, 1928 . .	44.9	December 31st, 1931 . .	87.2

The world stocks at the end of 1931 represented about one-third of the average yearly production. The situation is aggravated by the fact that stocks are concentrated in a few exporting centres. In 1930, the chief sugar-exporting countries entered into negotiations with a view to regulating production and exports, and concluded an agreement (the *Brussels Convention, 1931*) fixing export quotas and providing for the liquidation of stocks within five years. As a consequence of this measure, some restriction of planting has already taken place.

Meat.

The statistics of meat production are very defective and the index is largely conjectural in character.

The steady though moderate increase in the world production of meat appears to have been checked in 1929. In 1930, production declined to a level just below the quinquennial average (1925 to 1929).

The advance in meat production up to 1928 and 1929 took place chiefly in European countries; the American output showed little fluctuation. The year 1930 witnessed a considerable drop in output in the Union of Soviet Socialist Republics, as well as in North America, but a further advance in Europe and other continents.

Owing to the shift in relative prices in the early stages of the depression, the rearing of livestock became more profitable than arable farming. The supply of meat cannot,

¹ Visible supplies in Europe, United States ports, Cuban ports and in the interior of Cuba: source: London and Cambridge Economic Service.

however, be increased rapidly, and at first prices were fairly well maintained. But as the depression proceeded, the demand for this relatively expensive foodstuff fell off considerably; consequently, as output was maintained at a relatively high level, prices declined rapidly; this decline has been particularly marked since the beginning of 1931. With a view to reducing their costs, farmers have, in general, reduced the average age at which they slaughter; accordingly the pressure of supply on the market has not been relieved.

Wine and Hops.

While the aggregate production of coffee, tea and cocoa has increased by nearly a-half since the war, no such increase has taken place in the output of wine and beer.

The group index of wine and hops is almost wholly determined by the wine-growing industry. The production of wine has shown wide year-to-year fluctuations, while consumption has, on the whole, tended to shrink. The vintage of 1928 was of record size and that of the following year was not much smaller, but in 1930 and 1931, the total vintage was considerably below the quinquennial average (1925 to 1929). The wine market was somewhat improved in 1930, as a result of unusually large imports into France, but, in 1931, it was again characterised by falling prices and keen competition among exporting countries, while many importing markets have become less and less accessible to foreign produce. Stocks have been particularly large in France; in October 1930, commercial stocks in that country reached the figure of 12,420,000 hectolitres which corresponds to about 22 per cent of the average yearly output. The wine-growing industry in the southern hemisphere has also been severely affected.

The depression has been no less acute in the hops market, especially in Europe. The consumption of beer, though increasing until 1929, in no year reached the pre-war level. The production of hops, on the other hand, fluctuated widely from year to year, and, in 1929, exceeded pre-war production for the first time. Prices fell heavily, hop acreage was drastically reduced, and the yield of the 1931 crop was only three-quarters of the average in 1925 to 1929.

Coffee, Tea, Cocoa.

The aggregate production of coffee, tea and cocoa, the world's chief sources of non-alcoholic beverages, was 20 per cent above the average for the quinquennium 1925-26 to 1929-30 in the last year of that period. In 1930-31, it fell much below that average, but appears to have recovered considerably in 1931-32.

The group index reflects mainly the extremely wide variations in coffee production. The crop reaped in 1929-30 was the heaviest on record, being 36 per cent above the quinquennial average. While the crop dropped by 10 million quintals in the following year, it is believed that that of 1931-32 will show an increase, and be approximately 10 per cent above the quinquennial average. These fluctuations are due almost entirely to the Brazilian crop which represents, on an average, some two-thirds of the total world production; in the period under review, the output of other countries ("mild coffee") showed a moderate rise roughly proportionate to the increase in demand.

The coffee-market was dislocated after the bumper crop of 1929-30 and prices have undergone an unprecedented fall. Huge stocks of coffee have, as the following figures in millions of quintals show, been accumulated:¹

March 31st, 1926 . . .	5.2	March 31st, 1931	17.0
March 31st, 1929 . . .	9.4	February 29th, 1932 . .	20.5
March 31st, 1930 . . .	16.5		

¹ Visible stocks in Europe, the United States, and in the ports of Brazil, plus interior stocks in Brazil, but excluding São Paulo Government stock. Figures supplied by Messrs. Duuring & Zoon; source: London and Cambridge Economic Service.

Total stocks at present correspond to about 15 months' consumption. Brazil has made repeated attempts to control the coffee market by means of various valorisation schemes. After the breakdown of the Coffee Defence Plan in October 1929, an international loan was raised and a new plan adopted with a view to liquidating existing stocks and placing future crops gradually on the market, but this scheme collapsed in turn in April 1931. Since then, a new policy of gradually destroying low grades of coffee (7,200,000 quintals by August 1st, 1932) has been adopted and an emergency tax imposed upon coffee exports in order to finance the purchase and destruction of surplus coffee.

The production of tea increased more regularly and more moderately than that of coffee. The 1930-31 crop showed a drop of 10 per cent and was below the average for the preceding quinquennium. This was partly due to the rather unfavourable weather conditions, but more especially to the restrictive measures undertaken by tea planters in British India and the Netherlands East Indies. The scheme was, however, abandoned in 1931, and it is anticipated that the crop of 1931-32 will prove somewhat heavier than that of the previous year. The tea market has also been depressed by excessive supplies though the excess has been much smaller than in many other markets. The stocks held in the United Kingdom, which consumes about half the total tea crop, have varied as follows (in millions of quintals):¹

March 31st, 1926 . . .	0.9	March 31st, 1931 . . .	1.2
March 31st, 1929 . . .	1.2	March 31st, 1932 . . .	1.1
March 31st, 1930 . . .	1.0		

Cocoa exports increased moderately until 1929, but those of 1930 were rather light. On the other hand, world consumption appears to have increased in 1930 as a result of low prices. In 1931, the crop was relatively good, exports increased considerably, and stocks showed an upward tendency.

Tobacco.

Too much reliance should not be placed on the statistics for tobacco as the Asiatic production is, in the main, estimated on the basis of figures for area under cultivation and, does not take account of China. From the figures available, it would appear that output changed little between 1925 and 1928, but advanced somewhat in 1929 and 1930. This advance has been particularly marked in North America.

Vegetable Oil Materials.

The movement of this group index in the three last years considered is largely influenced by the wide variations in the output of olive oil, which reached the highest figure ever recorded in 1929. Indeed, the European index (excluding the Union of Soviet Socialist Republics) for vegetable oils, which is almost wholly governed by olive-oil production, rose in that year to 145. Crops in 1930 were little more than one-third of those of the preceding year, but nearly doubled again in 1931. The yield of linseed decreased heavily in 1929, but rose in the following year and reached a record in 1931. As the Argentine produces nearly one-half of the world supply of linseed, and other vegetable oils are of small importance in Latin America, the index for this continent increased very rapidly (from 76 in 1929, to 116 in 1931). The total cotton-seed crop has varied but little in the last four years. In 1931, a considerable increase in the United States more than outweighed the heavy drop in Indian production.

¹ Up to 1929, bonded warehouse stocks; since 1930, stocks of the Tea Brokers' Association. The figures from 1930 onwards have been increased by 10 per cent, in order to make them comparable with those for the previous years. Source: London and Cambridge Economic Service.

The most important tropical supply of vegetable oils is the crop of ground nuts which was very heavy in 1928-29 and 1930-31, but relatively light in 1929-30 and 1931-32. The yields of all other tropical oils, except copra, increased in 1930-31.

*Textiles.*¹

The production of textile raw materials as a whole has developed very slowly. The peak reached in 1929 was only 6 per cent above the quinquennial average (1925 to 1929), and the decrease in the two following years has been relatively slight. Nevertheless, the supply of textile materials has been in excess of requirements of the manufacturing industry for several years, owing to a contraction in the demand for finished textile products, and has led to a heavy slump in prices.

The crops of the chief textile material, raw cotton, were relatively abundant in 1928 and 1929, a small decrease occurred in 1930, but the yield of 1931 is likely to prove the heaviest in recent years. These fluctuations are mainly due to the American cotton crop. While the aggregate production of India, Egypt, the Soviet Union, etc., has, on the whole, shown a steady though moderate advance, the American output has varied between wide limits, owing largely to the devastations of the "boll weevil". This insect pest has also caused a deterioration in the quality of American cotton, while that of other countries has tended to improve. Thus American cotton tended to lose ground to others and was in a difficult situation even before the beginning of the general economic depression. During the last years under review, both the American and Egyptian Governments have taken measures to maintain the prices of their cotton, but these measures have not checked the general downward movement of cotton prices. American cotton has tended to be replaced by other qualities which have fallen more in price. In the second half of 1929-30, the world's cotton mills for the first time in modern history used less American than other raw cotton. The world stocks of cotton (in millions of bales) have increased as follows:²

December 31st, 1925 . . .	5,635	December 31st, 1930 . . .	9,396
December 31st, 1929 . . .	7,234	December 31st, 1931 . . .	10,709

The world's flax crop has increased steadily since 1927. The area under flax outside the Union of Soviet Socialist Republics was reduced considerably in 1931, but, according to preliminary information, the resulting fall in output appears to have been more than outweighed by the increase in the Soviet Union. The hemp crop has remained almost stationary in the period 1929 to 1931, at a level some 9 to 10 per cent below the average for 1925 to 1929. On the other hand, the production of jute, which is practically confined to India, increased considerably in both 1929-30 and 1930-31, with the result that large stocks have accumulated. It is forecast that the jute crop of 1931-32 will be reduced by more than 50 per cent.

Record clips of raw wool were obtained in 1928 and 1929. After a considerable drop in 1930, a fresh increase would appear to have taken place in the clip of 1931. In the last few years, the production of wool has been largely influenced by increased reliance upon "mixed farming". The increase in the consumption of mutton up to 1929 helped to augment the supplies of wool, and the proportion of medium and coarse wools has risen. Although stocks of raw wool are not very large, the prices of wool and its substitutes have dropped considerably. The wool growers and manufacturers have attempted to achieve closer co-operation in recent years and have set up an International Wool Textile Organisation with this end in view.

¹ For a discussion of the movements in the textile manufacturing industries, see Chapter II below.

² Stocks in Europe, the United States, Alexandria, Bombay and the Orient. Source: Liverpool Cotton Association.

The production of both natural and artificial silk increased between 1925 and 1929, but, while the supplies of the former rose by less than one-quarter, those of the latter rose by as much as 143 per cent — more than any other commodity considered. The production of natural silk has decreased somewhat in the last two years under review, but that of artificial silk, after a slight drop in 1930, attained a new record in 1931. Until recent years, the introduction of artificial silk reacted favourably, rather than the reverse, upon the consumption of natural silk, with which it was frequently mixed. The price of natural silk, however, has fallen considerably, and large stocks of silk have accumulated in the ports of the Far East. The artificial silk industry has also been affected by the depression. Increasing stocks bear witness to the fact that the equilibrium between production and demand has been disturbed, largely as the result of an excessive increase in industrial plant.

Rubber.

It is customary to estimate the production of crude rubber on the basis of net exports, as actual production is not accurately known. Net export figures afford a fairly exact measure of production, except in periods when exports have been subject to restriction.

In spite of the export restriction scheme applied in British-controlled plantation areas in 1923 to 1928, total production of rubber increased very rapidly over this period. After the removal of the British restriction scheme, total shipments reached the record figure of 875,000 tons in 1929, exceeding the average for 1925 to 1929 by almost one-third. British Malaya was responsible for the greater part of this sudden increase, but the Netherlands East Indies and Ceylon also increased their output considerably. Total shipments were much reduced in the next two years — by 47 million tons in 1930 and by a further 23 million in 1931. The production of 1931, however, still exceeded the average for the period 1925 to 1929.

World consumption of rubber has shown much less violent variations. Apart from the peak reached in 1929, which was due to the exceptionally heavy demand for motor tyres required for new motor vehicles, consumption increased at a steady rate. The decrease in 1930 and 1931 was also comparatively smooth, and consumption has remained higher than in 1928.

With the outbreak of the economic depression, it soon became evident that supplies far exceeded demand. This over-supply is reflected in the fall of prices to a point at which all profits in the planting industry have been eliminated as well as in the rapid growth of stocks.

The world's crude rubber stocks (in thousands of metric tons) were :¹

March 31st, 1928 . . .	264.2	March 31st, 1931 . . .	555.8
March 31st, 1929 . . .	242.8	February 29th, 1932 . .	654.3
March 31st, 1930 . . .	367.8		

The 1931 supplies came from trees planted before or during 1924. Since that year, the acreage has been considerably extended and the yield per acre has also tended to increase.

Wood-Pulp.

The output of wood-pulp increased by more than one-third between 1925 and 1929. Although there was a reduction in 1930, output in that year was still 13 per cent above the average for the preceding quinquennium. The North American industry has, however,

¹ Estimates supplied by the Rubber Growers' Association. The figures given above exclude throughout stocks "afloat to the United States" which are not known since October 1930. In March 1930, these stocks amounted to 64,000 tons.

suffered severely in 1930 and 1931, the output of the latter year being some 12 per cent below the average for 1925 to 1929 and 24 per cent below the 1929 figure. In Europe, the decline from 1929 to 1931 was only 13 per cent.

The tendency for chemical pulp to gain ground from mechanical has persisted in recent years. Until 1929, the increase in output was greater in the chemical pulp industry, and since that year mechanical pulp production has suffered more.

European wood-pulp producers have organised cartels with a view to curtailing production and regulating exports. The Northern Mechanical Pulp Cartel was, however, dissolved in the spring of 1932.

Fuels.

The economic depression has seriously affected the coal-mining industry. In 1931, the world output of coal was 262 million tons or 19.7 per cent below the peak figures for 1929, and was indeed lower than in any year since 1922. This decrease corresponds roughly to that of industrial raw materials as a group, but is less than the decline in the output of manufacturing industries.

In 1930 and 1931, the production of the United States declined considerably more than that of Europe and other continental groups. Thus the share of Europe in world production has increased and that of the United States has fallen. Between 1929 and 1931, production fell in all European countries except Belgium and the Netherlands. The share of the United Kingdom in the total European output has dropped from 51 per cent in 1924 to slightly more than 44 per cent in 1930-31.

For many years, the root cause of the difficulties of the coal industry has been the wide margin between productive capacity and demand; this margin has been further widened as a result of the decline in demand in the past two years. Moreover, as coal mines are kept in operation for some time even when orders are lacking, a disequilibrium has also appeared between actual production and demand. In consequence, a considerable accumulation of stocks has taken place in recent years, as is shown by the following figures for the European continent (in thousands of metric tons):¹

End of year	Belgium, Germany, Saar, Polish Upper Silesia	France
1929	4,997	770
1930	17,419	2,860
1931	20,714	4,700

Total world stocks at the end of 1931 have been estimated at approximately 70 million tons and the European stocks at some 30 million tons. Coal prices, which, however, were relatively low in 1929, were well maintained until the autumn of 1931, and the subsequent drop has not been as heavy as for many other raw materials.²

The world's petroleum output increased without interruption and more rapidly than consumption during the first five years under review. The output of 1929 was 19 per cent above the annual average for 1925 to 1929. The United States was responsible for two-thirds of this increase, but the rate of increase was greater in Venezuela and certain other countries. In 1930 and 1931, the output of crude oil was reduced, chiefly as a result of restrictive measures taken in the United States. In 1931, large companies in Venezuela and other territories likewise agreed to restrict output. The world output dropped from 1,486 million barrels in 1929 to 1,370 million in 1931 — not more than 8 per cent.

¹ Belgium, Germany, Saar, Polish Upper Silesia: Institut für Konjunkturforschung, Berlin. France: *Annales des Mines*.

² For fuller discussion, cf. League of Nations, Economic Committee: *The Coal Problem* (Official no. C.405.M.224.1932.II.B), Geneva, May 1932.

Stocks of petroleum in the United States (crude and refined) have varied as follows (millions of barrels):¹

March 31st, 1925	491	March 31st, 1931	591
March 31st, 1929	599	March 31st, 1932	569
March 31st, 1930	639		

Stocks at the end of March 1932 correspond to roughly two-thirds of the total production of the United States in 1931. It may be noted that petroleum stocks, in contrast to those of most other staple products, have decreased during the depression.

The group index of fuel production does not allow for power generated by hydro-electric plants. The rapid development that has taken place in the output of electricity is referred to in Chapter II.

Metals.

The statistics on which the metal index is based relate to smelter production and not to mine production. Consequently, the continental distribution in the annexes must not be interpreted as indicating the primary sources of supply. The figures for North America and Europe are higher and those for the other continents appreciably lower than they would have been had it been possible to employ data relating to the output of mines.

The group index for metals has shown wider fluctuations than any other group index during the period under review. It rose by nearly one-third between 1925 and 1929, and dropped by 45 per cent between the latter year and 1931. In 1931, the aggregate output of metals was some 29 per cent below the average for the quinquennium 1925 to 1929.

Pig iron and ferro-alloys (that part of output which is not used for the making of steel — see page 15 above) and steel ingots and castings account for about 70 per cent of the aggregates upon which the metal index is based, and thus largely determine the movement of that index. The iron and steel industry is dealt with in Chapter II and need not be discussed here.

The movements in the production of the non-ferrous metals have been similar to those of iron and steel; but the rise up to 1929 was greater and the decline in the two subsequent years more moderate. The decrease in output between 1929 and 1931 has been greatest in the case of nickel (36 per cent); the output of copper, the most important of the non-ferrous metals considered, has also fallen heavily (30 per cent); tin has fallen least of all (17 per cent).

In spite of a steady advance in the consumption of these metals, supplies began to exceed demand as early as 1929. In the two subsequent years, prices have been reduced, in some cases to the lowest levels on record, and demand has not been sufficient to absorb even the reduced output. Stocks have consequently grown rapidly, as shown hereunder (thousands of metric tons):²

	Copper	Lead	Tin	Zinc
April 1st, 1925	401.3	.	20.3	16.3
April 1st, 1929	278.4	.	27.4	35.6
April 1st, 1930	486.7	45.1	43.3	91.4
April 1st, 1931	518.2	132.1	61.0	142.2
April 1st, 1932 . . . . .	...	165.4	62.5	140.2

¹ Source: London and Cambridge Economic Service.

² Copper: — Total supply outside hands of consumers, less Japanese stocks which were, in March 1930, 10,710 tons. The publication of the copper statistics was discontinued in the United States in September 1931. — Lead: — Refined stocks in the United States, plus warehouse stocks in the United Kingdom. The figure for 1932 refers to March 1st. — Tin: — World stocks. — Zinc: — Visible supply in the United States and the United Kingdom. Source: London and Cambridge Economic Service.

The curtailment of the production of non-ferrous metals has been facilitated by the fact that these industries have been to a large extent controlled by national and international combines and cartels. The general policy of these associations has been to restrict output with a view to maintaining prices. The copper market has been largely controlled by the Copper Exporters, Inc., whose main object has been to stabilise prices. Production was, however, only slightly reduced in the first period of the depression, but more recently the North-American mines and their Latin-American subsidiaries have curtailed production, while other producers reached new high records in 1931. The price stabilisation scheme has therefore failed.

The Lead Producers' Association controls about 90 per cent of the world's output of lead ; the most important countries outside the cartel are the United States and Poland. All members, except Burma, have agreed to restrict output.

The Zinc Cartel was dissolved at the end of 1929, but an *entente* was concluded in July 1931 between the European, Canadian and Mexican producers. The United States (whose total output is absorbed by the home market) and the Union of Soviet Socialist Republics have remained outside the cartel. The European producers have agreed to curtail output and the producers outside Europe to restrict exports to that continent. No direct control of prices is attempted.

The Tin Producers' Association adopted a restriction scheme in 1930 ; an International Tin Convention was concluded in 1931 between four interested Governments (Bolivia, Netherlands East Indies, Nigeria and Malaya) with a view to restricting production and exports ; and an International Tin Pool was constituted in the same year in order to withdraw certain quantities of tin from the market in anticipation of a rise in prices.

The aluminium market is dominated by the European cartel, on the one hand, and by the American-Canadian Trust, on the other. The European cartel has regulated the sales of each member, both in national and foreign markets, and has fixed a uniform price.

Ninety per cent of the world's nickel production is concentrated in two closely allied enterprises.

Recent developments on the silver market are of special interest. Silver is largely obtained as a by-product of copper and lead, and the supply of virgin metal varied but little until 1929. Output was reduced by 7 per cent in 1930 and by not less than 19 per cent in 1931. But old silver made available through demonetisation of subsidiary coins or by reduction of their silver content has swelled the yearly supply by about 25 per cent. In particular, the adoption of the gold bullion standard in India and the consequent large sales of silver by the Indian Government have resulted in considerable additional quantities of silver being thrown on the market. Further, the demand for silver in the Orient has declined. The price of silver consequently fell in the course of 1931 to a point nearly 50 per cent below the pre-war level.

Non-metallic Minerals.

This somewhat heterogeneous group comprises cement, asbestos and salt.

The movement of the group index is chiefly determined by the production of cement. Cement statistics are rather incomplete, but sufficiently representative to afford a fair indication of the growth of the industry. The output of cement increased steadily until 1929, but dropped somewhat in 1930, and, according to the incomplete data available, also in 1931 ; in the latter year, output appears to have been considerably below the 1925-1929 average. Asbestos is mainly produced in Canada ; output dropped by about 40 per cent between 1929 and 1931. The production of salt increased steadily until 1929, and has fallen off little during the depression.

Chemicals (Fertilisers).

The chemical industry was among the most prosperous until 1929 and the group index shows an increase of about one-third during the period 1925 to 1929. In 1930, total output dropped by 10 per cent, but remained well above the average for the preceding quinquennium. As the world economic depression has continued, however, the decreased purchasing power of farmers has been reflected in a serious contraction in the consumption of fertilisers. The incomplete data for 1931 suggest that the aggregate production of fertilisers was curtailed by more than 25 per cent in that year.

The three principal groups of fertilisers considered are phosphates, potash and nitrates. The production of phosphates continued to increase in 1930, but dropped severely in 1931. The output of potash, the monopoly of which is shared between Germany and France, has been reduced more than chemicals in general. The decline in demand has affected the nitrate industry in all countries, though with unequal intensity; while the Chilean production of nitrate of soda dropped in 1931 to less than half the average for 1925 to 1929, the output of synthetic nitrogen has been but little reduced. The European Nitrogen Cartel was at first successful in restricting production approximately to the level of current consumption, but the agreement broke down in the middle of 1931, and there has since been unrestricted competition on the nitrate market.

CHANGES IN THE CONTINENTAL DISTRIBUTION AND IN THE COMPOSITION
OF TOTAL PRODUCTION.

The changes which have taken place since 1925 in the share of different continental groups in total world production of primary goods may be studied in detail in Appendix IV; changes in the relative importance of the various commodity groups included in the general index are shown in Appendix V.

In earlier issues of the *Memorandum on Production and Trade*, the most significant features in the changes which took place up to 1929 have been analysed in some detail. In particular, it has been shown that, as a result of the rapid recovery in European production after the war and the first post-war slump, the share of Europe in world production of both crude foodstuffs and raw materials gradually increased, and, as a corollary, the shares of the other continental groups — that of North America in particular — were gradually reduced. In other words, there was in this period a tendency towards a re-establishment of the pre-war distribution of production as between Europe and the rest of the world. Further, the relative importance of foodstuff production gradually declined up to 1929 as a result of the more rapid increase in the output of industrial raw materials, especially those of non-agricultural origin.

The sudden shifts which have taken place subsequently,¹ both in the continental distribution and in the composition of total world production, are in the main only temporary in character. It has been pointed out above that foodstuff production, and indeed agricultural production in general, was maintained at a relatively high level in 1930 and 1931, while the output of non-agricultural commodities dropped

¹ The figures shown in Appendices IV and V do not extend beyond 1930, as it has not been possible as yet to calculate complete production aggregates for 1931. The conclusions drawn in the present paragraph are, however, based on provisional aggregates calculated for that year.

heavily. The consequent increase in the share of the former in the total volume of output is a reflexion of the greater inelasticity of supply and proves nothing in regard to the relative economic position of the two branches of production. For this reason, too great significance should not be attached to recent shifts in the continental distribution of world production of primary products. It is mainly as a consequence of the above temporary factors that the share of the industrialised continents — North America in particular and Europe, excluding the Union of Soviet Socialist Republics — in the total production of primary products has been considerably reduced during the depression, and that of the others has been increased.

“QUANTUM” CHANGES IN INTERNATIONAL TRADE.

It would fall outside the purpose of the present *Review* to enter upon any detailed analysis of international trade such as is made in the annual *Review of World Trade* published by the Economic Intelligence Service of the League of Nations.¹ It is of particular interest, however, to examine to what extent the changes in the production of primary goods, as measured by the world production index discussed above, and the changes in industrial activity, discussed in Chapter II, are reflected in changes in the *quantum* of international trade. For this purpose, *quantum* indices have been calculated for international trade. The method adopted is explained below.

In the introduction to the present volume, a comparison is made between these *quantum* indices of international trade and the foodstuff and raw-material production indices for the world and the different continental groups. The two groups of indices are indeed not closely comparable, owing largely to the fact that the trade indices include manufactured goods, in addition to crude foodstuffs and industrial raw materials. Crude products, however, constitute by far the greater proportion of the goods entering into international trade. A calculation of their share in the aggregate dollar value in 1925 and 1929 of the import and export trade of some forty countries, which show the composition of their trade according to the Brussels classification and which represent roughly three-quarters of total world trade, gives the following results :

	Imports		Exports		Total	
	1925	1929	1925	1929	1925	1929
Foodstuffs and raw materials	73.8	70.3	51.3	48.9	63.3	60.1
Manufactured goods.	26.2	29.7	48.7	51.1	36.7	39.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

¹ Last issue : *Review of World Trade, 1930* (Volume I of *Memorandum on International Trade and Balances of Payments*), Geneva 1931.

That the share of primary products in imports is greater than in exports is mainly due to the fact that the European countries which import chiefly primary products from, and export chiefly manufactures to countries excluded from the base aggregates have a heavy weight in these aggregates. Attention should therefore be paid rather to the figures showing the composition of the total trade (*i.e.*, imports plus exports) of the countries considered, which may be taken as roughly representative of that of world trade as a whole.

The relative changes between 1925 and 1929 are highly significant. In a period of rapid economic development, when industrial production increases faster than the output of primary goods, it is to be expected that the share of manufactured goods in international trade should increase. The relation between the annual averages of the general price levels for primary goods, on the one hand, and manufactured goods, on the other, was essentially the same in 1925 and 1929; such change as did occur was rather in the direction of a relative decline in the prices of manufactured goods. The percentage figures shown above, therefore, do not understate the drop in the share of primary goods or the increase in that of manufactured goods in the *quantum* of world trade over the period considered. According to the calculations explained below, it would appear that the *quantum* increase in total world trade in this period amounted to approximately 21 per cent. On the basis of the above figures relating to the changes in the composition of that *quantum*, it may be estimated that trade in primary goods increased by nearly 15 per cent while trade in manufactured goods increased by roughly 31 to 32 per cent.

According to the world production index discussed above, the total output of primary goods rose by about 11 per cent in the same period; and, from the calculations made in Chapter II on the basis of various national indices of industrial production, it would appear that industrial production in the principal industrial countries, excluding Soviet Russia, increased by 23 to 24 per cent and, including that country, by perhaps 27 per cent. These last figures are, of course, subject to some margin of error and, as the national production indices in some cases at least embrace other than the finishing industries, they may to some degree understate the real increase in the production of manufactured goods in that period. But, even if due allowance is made for this fact, the various index figures here quoted would suggest that, in the case of both primary goods and manufactured articles, the *quantum* of international trade increased more rapidly than world production.

On account of the violent price changes that have since taken place, it is difficult to extend beyond 1929 the separate *quantum* calculations for the trade in primary goods and manufactured articles. Moreover, complete and detailed trade figures for 1931 are not yet available. From such provisional information as is now published, however, it may be concluded that, as in the case of production, the trade in primary goods, and especially foodstuffs, has been better maintained than that in manufactured articles, and thus that the share of the former in the total volume of world trade has temporarily increased. Further, as will be shown below, the *quantum* of world trade has shrunk more than that of production and this would appear to apply particularly to manufactured articles.

Value of Trade and its Continental Distribution.

The recorded aggregate import value of goods in international trade rose from \$33,150 million in 1925 to \$35,473 million in 1929 but fell to \$28,933 million in 1930. The corresponding export figure, which differs from the import figure partly because it excludes freight and insurance, rose from \$31,434 million in 1925 to \$32,742 million in 1929 and fell to \$26,432 million in 1930. The percentage distribution of this trade among different continental groups and the percentage movement of the value of imports and exports of each group during the period under review are shown in Table VII. The values for each group upon which these percentages are based were reached simply by adding those of the individual countries belonging to it. The figures for each group thus represent, in addition to the trade of the group with the rest of the world, the trade between its constituent parts.

The share of Europe in world trade, after the decline during and immediately after the war, grew from 50.8 per cent in 1925 to 55.7 per cent in 1929. The shares of other continents, except Africa, have been falling. This redistribution of the trade value is partly (but not wholly) due to the fact that, since 1928, foods and raw materials have fallen more in price than manufactured goods, which are more important in the trade of Europe than in that of other continents, owing to the exchange of such goods between the industrial European countries.

Trade movements during the years under review and, in particular, the irregular movements of imports and exports of the individual groups were largely influenced by capital movements and variations in crops.

By the middle of 1928, a contraction in capital exports from certain of the lending countries took place and has since been followed by an almost complete cessation of capital movements to the countries which normally borrow and by the liquidation of a portion of the outstanding foreign debts of these countries. This change in capital movements is reflected in the movement of the merchandise balance of the majority of countries: that of creditor countries has become more passive or less active, while that of debtor countries has changed in the opposite direction.

As a result of heavy cereal crops in Europe, the net requirements of foreign cereals in the industrial European countries have decreased during the same period and been met largely by imports from Eastern Europe. Between 1928 and 1930, the share of Europe in the world exports of cereals rose as follows: wheat, from 4 to 25; rye, from 44 to 96; barley, from 21 to 82; oats, from 36 to 60; and maize, from 7 to 26 per cent.

Table VII.

PERCENTAGE DISTRIBUTION AND MOVEMENT OF WORLD TRADE, BY CONTINENTAL GROUPS.

(Basis : Recorded values ; special trade ; merchandise only.) ¹

Continental Groups	Percentage distribution amongst continental groups				Movement of the value of trade (percentages; average 1925 to 1929 = 100)					
	1925	1927	1929	1930	1925	1926	1927	1928	1929	1930
<i>Imports :</i>										
1. Europe, excluding U.S.S.R.	54.6	54.9	54.3	56.8	99	91.5	101	103.5	105	89.5
2. Europe, including U.S.S.R.	55.9	55.9	55.6	58.7	99	91.5	100.5	104	105	90.5
3. North America ²	15.5	15.7	16.0	14.5	95.5	101.5	98.5	99	105.5	77.5
4. Latin America ³	7.5	7.2	7.3	6.6	99.5	97.5	98	101.5	103.5	77
5. Africa	4.1	4.4	4.8	5.1	91.5	88.5	98.5	107.5	114	98.5
6. Asia, excluding Asiatic Russia	14.0	13.7	13.6	12.8	98	101	98	101	102	78.5
7. Oceania	3.0	3.1	2.7	2.3	101.5	101	105	94.5	98.5	67
Total (groups 2 to 7)	100	100	100	100	98	95	100	102.5	105	85
<i>Exports :</i>										
1. Europe, excluding U.S.S.R.	44.3	45.9	47.2	50.3	96.5	91.5	100	105	108	92.5
2. Europe, including U.S.S.R.	45.3	47.2	48.7	52.4	96	91	100	104.5	108	93.5
3. North America ²	19.8	19.3	19.4	17.8	100	96.5	97	104	102.5	75.5
4. Latin America ³	9.2	9.5	9.3	7.9	97	92	101	106	103.5	70.5
5. Africa	4.3	4.5	4.5	4.7	95	89.5	100	108.5	106.5	88
6. Asia, excluding Asiatic Russia	18.1	16.4	15.2	14.3	109	100.5	98	97	95.5	72.5
7. Oceania	3.3	3.1	2.9	2.9	106	97.5	98	100.5	97.5	78
Total (groups 2 to 7)	100	100	100	100	99.5	94	99	103.5	104	83.5
<i>Total of imports and exports :</i>										
1. Europe, excluding U.S.S.R.	49.6	50.6	50.9	53.7	98	91.5	100.5	104	106.5	90.5
2. Europe, including U.S.S.R.	50.8	51.8	52.3	55.7	97.5	91.5	100.5	104	106.5	91.5
3. North America ²	17.6	17.4	17.6	16.1	98	99	98	101.5	104	76.5
4. Latin America ³	8.3	8.3	8.2	7.2	98	94.5	100	104	103.5	73.5
5. Africa	4.2	4.4	4.7	4.9	93	89	99.5	108	110.5	93.5
6. Asia, excluding Asiatic Russia	16.0	15.0	14.4	13.5	103.5	101	98	99	98.5	75.5
7. Oceania	3.1	3.1	2.8	2.6	103.5	99.5	101.5	97.5	98	72.5
Total (groups 2 to 7)	100	100	100	100	98.5	94.5	99.5	103	104.5	84.5

"Quantum" of Trade.

The figures shown in the last six columns of Table VII, represent changes in the value of trade and cannot therefore be compared with the world indices of the volume of production given earlier. For a number of countries, representing not far from three-quarters of world trade, calculations are made with a view to showing

¹ The figures upon which the table is based include, in the case of a few countries (among which the Union of South Africa, Australia and Mexico), bullion and specie.

² *i.e.*, Canada, United States of America, Newfoundland, Greenland and St. Pierre and Miquelon.

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The share of Europe in world trade, after the decline during and immediately after the war, grew from 50.8 per cent in 1925 to 55.7 per cent in 1929. The shares of other continents, except Africa, have been falling. This redistribution of the trade value is partly (but not wholly) due to the fact that, since 1928, foods and raw materials have fallen more in price than manufactured goods, which are more important in the trade of Europe than in that of other continents, owing to the exchange of such goods between the industrial European countries.

Trade movements during the years under review and, in particular, the irregular movements of imports and exports of the individual groups were largely influenced by capital movements and variations in crops.

By the middle of 1928, a contraction in capital exports from certain of the lending countries took place and has since been followed by an almost complete cessation of capital movements to the countries which normally borrow and by the liquidation of a portion of the outstanding foreign debts of these countries. This change in capital movements is reflected in the movement of the merchandise balance of the majority of countries: that of creditor countries has become more passive or less active, while that of debtor countries has changed in the opposite direction.

As a result of heavy cereal crops in Europe, the net requirements of foreign cereals in the industrial European countries have decreased during the same period and been met largely by imports from Eastern Europe. Between 1928 and 1930, the share of Europe in the world exports of cereals rose as follows: wheat, from 4 to 25; rye, from 44 to 96; barley, from 21 to 82; oats, from 36 to 60; and maize, from 7 to 26 per cent.

Table VII.

PERCENTAGE DISTRIBUTION AND MOVEMENT OF WORLD TRADE, BY CONTINENTAL GROUPS.

(Basis : Recorded values ; special trade ; merchandise only.)¹

Continental Groups	Percentage distribution amongst continental groups ^a				Movement of the value of trade (percentages; average 1925 to 1929 = 100)					
	1925	1927	1929	1930	1925	1926	1927	1928	1929	1930
<i>Imports :</i>										
1. Europe, excluding U.S.S.R.	54.6	54.9	54.3	56.8	99	91.5	101	103.5	105	89.5
2. Europe, including U.S.S.R.	55.9	55.9	55.6	58.7	99	91.5	100.5	104	105	90.5
3. North America ²	15.5	15.7	16.0	14.5	95.5	101.5	98.5	99	105.5	77.5
4. Latin America ³	7.5	7.2	7.3	6.6	99.5	97.5	98	101.5	103.5	77
5. Africa	4.1	4.4	4.8	5.1	91.5	88.5	98.5	107.5	114	98.5
6. Asia, excluding Asiatic Russia	14.0	13.7	13.6	12.8	98	101	98	101	102	78.5
7. Oceania	3.0	3.1	2.7	2.3	101.5	101	105	94.5	98.5	67
Total (groups 2 to 7)	100	100	100	100	98	95	100	102.5	105	85
<i>Exports :</i>										
1. Europe, excluding U.S.S.R.	44.3	45.9	47.2	50.3	96.5	91.5	100	105	108	92.5
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5. Africa	4.3	4.5	4.5	4.7	95	89.5	100	108.5	106.5	88
6. Asia, excluding Asiatic Russia	18.1	16.4	15.2	14.3	109	100.5	98	97	95.5	72.5
7. Oceania	3.3	3.1	2.9	2.9	106	97.5	98	100.5	97.5	78
Total (groups 2 to 7)	100	100	100	100	99.5	94	99	103.5	104	83.5
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1. Europe, excluding U.S.S.R.	49.6	50.6	50.9	53.7	98	91.5	100.5	104	106.5	90.5
2. Europe, including U.S.S.R.	50.8	51.8	52.3	55.7	97.5	91.5	100.5	104	106.5	91.5
3. North America ²	17.6	17.4	17.6	16.1	98	99	98	101.5	104	76.5
4. Latin America ³	8.3	8.3	8.2	7.2	98	94.5	100	104	103.5	73.5
5. Africa	4.2	4.4	4.7	4.9	93	89	99.5	108	110.5	93.5
6. Asia, excluding Asiatic Russia	16.0	15.0	14.4	13.5	103.5	101	98	99	98.5	75.5
7. Oceania	3.1	3.1	2.8	2.6	103.5	99.5	101.5	97.5	98	72.5
Total (groups 2 to 7)	100	100	100	100	98.5	94.5	99.5	103	104.5	84.5

"Quantum" of Trade.

The figures shown in the last six columns of Table VII, represent changes in the value of trade and cannot therefore be compared with the world indices of the volume of production given earlier. For a number of countries, representing not far from three-quarters of world trade, calculations are made with a view to showing

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² *i.e.*, Canada, United States of America, Newfoundland, Greenland and St. Pierre and Miquelon.

³ *i.e.*, America other than "North America", as defined above.

the variations in the *quantum* of imports and exports. On the basis of these data, it is possible to calculate rough world indices of the movement of prices and the *quantum* of goods entering into international trade as shown below :

World trade	Average 1925-1929	1925	1926 .	1927	1928	1929	1930
World imports :							
Prices (gold)	100	107.5	101.5	98	97.5	95	83
Value	100	98	95	100	102.5	105	85
<i>Quantum</i>	100	91	93.5	101.5	105	110.5	102.5
World exports :							
Prices (gold)	100	108	100.5	98	98.5	95	83
Value	100	99.5	94	99	103.5	104	83.5
<i>Quantum</i>	100	92	94	101	105	109.5	100.5
Total world trade :							
Prices (gold)	100	108	101	98	98	95	83
Value	100	98.5	94.5	99.5	103	104.5	84.5
<i>Quantum</i>	100	91.5	93.5	101.5	105	110	101.5

Owing largely to deficiencies in the material upon which the calculations are based, the figures indicating the movement of the *quantum* of imports and exports do not agree exactly. Between 1925 and 1929, however, there would appear to have been an average annual growth in the *quantum* of world trade of between 4 and 5 per cent. Between 1929 and 1930, that *quantum* fell by a little more than 8 per cent ; but, in spite of this heavy reduction, it still remained somewhat above the average for the preceding quinquennium.

The information available concerning fluctuations in prices and the volume of trade is not sufficient to allow indices of the kind given above to be calculated for imports and exports of each continental group of countries. Such information can be given only for Europe and North America, as shown below (average 1925 to 1929 = 100) :

Continental groups	Imports						Exports					
	1925	1926	1927	1928	1929	1930	1925	1926	1927	1928	1929	1930
Europe :												
Prices (gold)	107	99	98	99	97	84	105.5	101	99	98.5	96	89.5
<i>Quantum</i>	92	92.5	102.5	105	108.5	107.5	91	90.5	101	106	113	104
North America :												
Prices (gold)	108.5	105	98.5	96.5	91.5	74.5	110	102.5	96.5	95.5	96	85.5
<i>Quantum</i>	88	96.5	100	102.5	115.5	104	91	94.5	101	108.5	107	88.5

A rough idea of the changes in the *quantum* of trade of all continental groups up to 1929 inclusive may, however, be afforded by the following figures, which are obtained by dividing the value of trade of each group by the world price indices shown above, disregarding the discrepancies in the movement of the prices at which

trade was conducted in different continents. Figures for total trade only are given, as these are less affected by inaccuracies arising from variations in relative prices than are figures for imports and exports considered separately.

Continental groups	1925-1929 average	1925	1926	1927	1928	1929
1. Europe, excluding U.S.S.R.	100	91	91	102	106	112
2. Europe, including U.S.S.R.	100	90	90	102	106	112
3. North America	100	91	98	100	104	110
4. Latin America	100	91	94	102	106	109
5. Africa	100	86	88	101	110	116
6. Asia, excluding Asiatic Russia	100	96	100	100	101	104
7. Oceania	100	96	98	104	100	103
World total	100	91	94	101	105	110

These indices are intended to give a rough idea only of the variations in the *quantum* of trade. Owing to the change in relative prices and the different composition of the trade of the respective continents, this table has not been extended beyond 1929. The tables on the preceding page disclose, however, a considerable discrepancy between trade movements in Europe and other continents in 1930. European trade (representing roughly one-half of world trade) fell much less in *quantum* than total world trade. The *quantum* of European imports was, indeed, only about one per cent less than in 1929. The reduction in the *quantum* of European exports amounted to 8 per cent (about two-thirds of the reduction in world exports) and was largely due, not to a contraction of the exchange of industrial products among European countries, but to smaller sales to other continents. With the relatively heavy fall in the prices of primary products, the quantity of manufactured goods which Europe had to sell to these continents in exchange for the raw materials and crude food products she required was reduced.

Various Tendencies of Trade in 1930.

Certain outstanding facts revealed by a detailed study of trade statistics in 1930 may be briefly indicated.

The tendency of certain borrowing countries (India and China) to become more self-supporting in cotton manufactures was very marked, and international trade in such manufactures was heavily reduced. In certain other borrowing countries also, the domestic industry was able to secure from foreign competitors a somewhat greater share of the local markets.

A number of agricultural countries, and particularly those in Europe (with the marked exception, however, of Soviet Russia), increased their exports of meat, eggs and dairy products. The larger exports of these products were absorbed by the industrial countries in Europe, which also increased their imports of fruit and certain industrial consumers' goods, while their purchases of durable consumers' goods, such

as motor-cars, declined. Moreover, this increase in many cases continued throughout the year as well as during the first half of 1931. The purchasing power of most non-industrial countries dropped with the rapid decline in the prices of foodstuffs and raw materials, and their imports of industrial consumers' goods were heavily reduced.

Trade in most industrial raw materials — in particular, the imports of raw materials by exporters of manufactures — declined. The exchange of primary products between countries producing them was better maintained than that of industrial against primary products.

In the first half of 1930, trade in capital goods was well maintained. Trade in industrial machinery actually exceeded the record level of the corresponding period of 1929, in spite of the reduced demand from most borrowing countries. In the latter half of the year, a decline set in; this decline affected even the countries which continued to increase their imports of consumers' goods. But an exceptional demand from Soviet Russia persisted throughout the year.

Trade in 1931.

Trade values for the world as a whole in 1931 were roughly 30 per cent lower than in 1930 and 40 to 42 per cent lower than the average for 1925 to 1929. It is not yet possible to estimate closely to what extent this reduction was due to the continued fall in prices. It would appear, however, that the average price fall did not exceed 20 per cent and that the *quantum* of world trade was some 12 to 15 per cent less than in 1930, when, as shown above, it was almost equal to the average for the period 1925 to 1929.

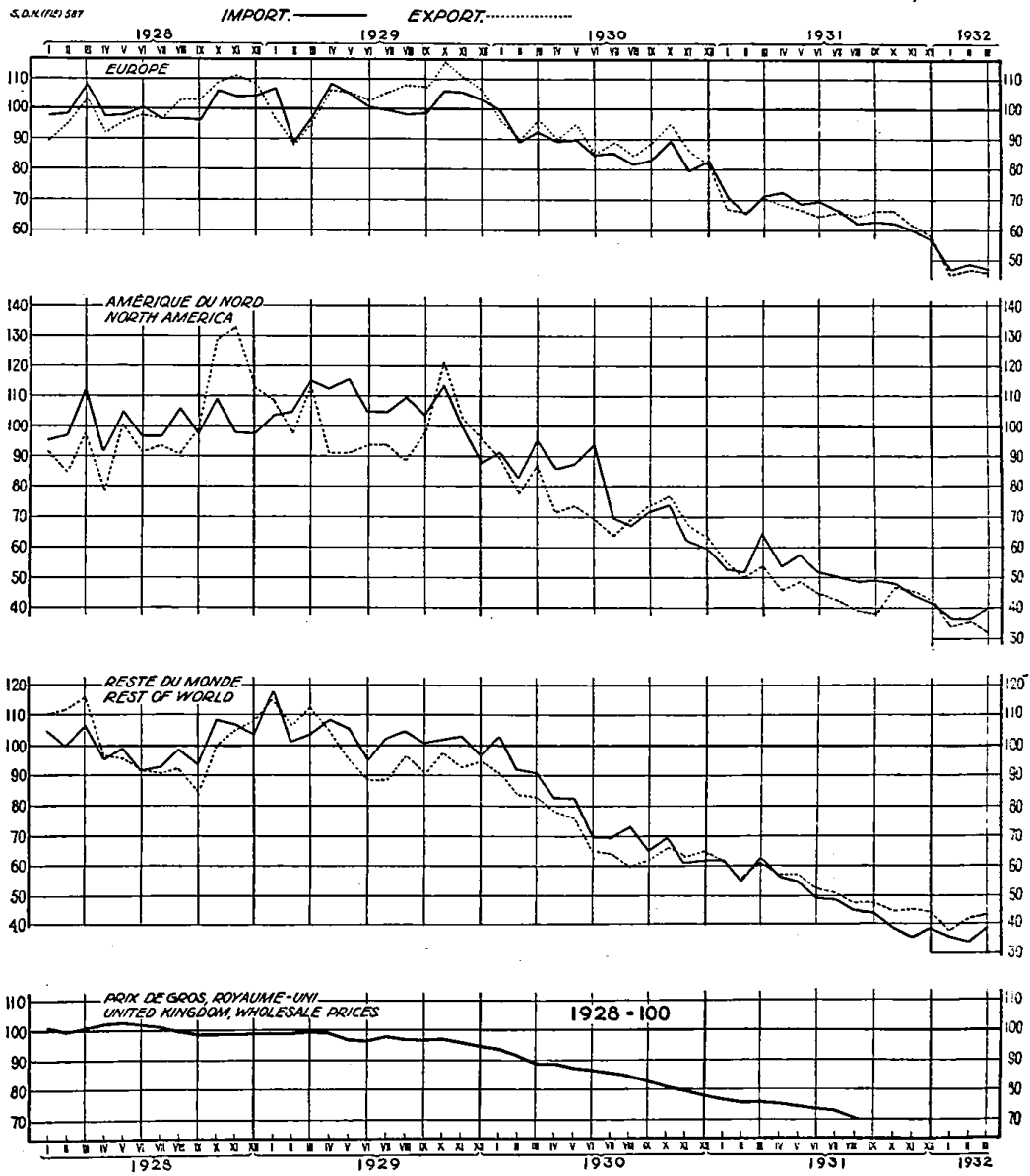
In the absence of full information concerning trade movements in 1931, the monthly trade value figures (largely of a provisional nature) from the beginning of 1928 up to February 1932 available for forty-five countries, representing in 1929 about 88 per cent of world trade,¹ are summarised in the diagrams on page 41. No adjustment has been made for seasonal variations. The Board of Trade wholesale price index for the United Kingdom — which until recently has been little affected by Customs duties and, in 1929 and 1930, fell in agreement with the world price index for goods in international trade given above — has also been shown for the period up to September 1931, in which month the United Kingdom suspended the gold standard.²

¹ The number of countries considered for Europe was twenty-five, representing 99 per cent of European trade. The corresponding figures for North America are: two countries (the United States and Canada), 99 per cent; and those for the rest of the world: eighteen countries, 61 per cent. With a few exceptions of small importance, the figures upon which the diagrams are based refer to merchandise only (special trade).

² As shown in Chapter III below, wholesale prices in the United Kingdom have since risen, mainly as a result of the depreciation in the exchange value of sterling which, however, has been very much greater than the rise in domestic prices. If the Board of Trade index be expressed in terms of gold, the price decline to which it would point since September 1931 has therefore been greater than the average decline in actual gold prices on the world market.

Diagram V.

MOVEMENT OF TRADE VALUES, BY MONTHS.
(Monthly average 1928 = 100.)



The value of the trade of other continents than Europe fell less in 1931 than in 1930 — a fact that may be attributed in part to an increase in their share of the world trade in cereals at a time when the export surplus of cereals of Eastern Europe fell off.

It is not yet possible to ascertain to what extent the continental distribution of international trade was changed in 1931 ; but there are reasons to believe that with the heavy contraction of trade in manufactured articles there was a reversal of the previous tendency of European trade to increase more rapidly or, as in 1930, to contract less than that of other continents.

Part of the decrease in international trade in 1931 has to be attributed to the official measures in the form of increased Customs duties, exchange control, quota systems, etc., aiming at adjusting the trade balance, which were undertaken by both creditor and debtor countries.

II. INDUSTRIAL PRODUCTION.

The index of the output of industrial raw materials, which was considered in the preceding chapter, affords an indirect measure of the changes in industrial activity in the world as a whole during the years 1925 to 1929. But on account of the very considerable increase in the world stocks of most of these raw materials since the end of that period, this index does not fully reflect the decline in the consumption of raw materials, and hence in the activity of the manufacturing industries, that took place in 1930 and 1931. For other years also, as already pointed out, the index is subject to serious limitations as a measure of changes in industrial activity. Thus, the output of most primary products of vegetable origin is largely dependent on atmospheric conditions; improvements in the technique of manufacture are constantly increasing the product that may be obtained from a given quantity of raw material.

In the present chapter, which deals primarily with conditions in the manufacturing industries, another angle of approach is adopted and conclusions are drawn from the composite indices of industrial production compiled in certain countries and from the information which is available in various countries regarding the activity in, or the physical output of, certain important branches of industry.

Owing to the great diversity of the products of manufacture and the absence in most countries of periodical statistics covering total industrial production, it is almost everywhere impossible to secure an exact measure of the fluctuations in the physical output of industry over short periods of time. The majority of the national production indices shown below should be regarded as merely furnishing a rough indication of changes in industrial activity. The indices vary widely in composition and scope and in the methods of compilation employed;¹ they generally cover both mining and manufacture and, in some cases, also the building industry. Some cover almost the entire range of national industry; others are limited to important industries or branches of industry which are considered to be representative. Some are based mainly on returns of actual quantities produced; others on production values, corrected for price changes. Some make extensive use — and almost all make some use — of indirect measures of activity such as data concerning consumption of raw materials, orders filed, goods despatched, degree of employment, etc.; and between the indirect data used in the different countries there is no uniformity. In some countries and for certain industries, figures for consumption of raw materials relate to quantities actually delivered at factories or, in the case of textiles, quantities “conditioned”, while in other cases only import figures or estimates of the market supply of raw

¹ For notes on the individual indices, see Table 101 of the *Statistical Year-Book of the League of Nations*, 1931-32.

materials are available. The activity of factories is sometimes measured by the number of workers actively employed, sometimes by the number of hours worked or by figures expressing the degree of utilisation of plant, etc. Figures for orders filed relate to an early stage and those for finished goods despatched to the final stage of the process of production. Indices for a particular month or year may therefore reflect both past, present and prospective activity in varying degrees. Thus, no close comparisons between the various national series can be attempted.

Certain further reservations must also be stated. Even the most comprehensive of these indices do not necessarily afford any close measure of the variations in the total productive activity or of the general prosperity of the countries concerned. The share of industry in total national production varies from country to country: the significance of the index of a highly industrialised country, such as the United Kingdom, and of a largely agricultural country, such as Poland, is naturally not the same. Again, the rapid changes in price relations in recent years have favoured some countries and injured others. Thus, in countries where the prices of certain goods of great importance in the production index have been maintained through organised restriction of their output, the economic situation has, in fact, been less seriously affected than the decline in the production index would suggest. Finally, in almost all countries — Sweden is a notable exception — no information regarding stocks of finished goods is available. Without such information, it is impossible to tell how far any given movement in the index reflects a change in effective demand.

The tables in this chapter will cover the period 1925 to 1931, but comment will mainly be directed to the period 1930 and 1931. For the developments of the preceding years, especially in so far as individual industries are concerned, reference should be made to the *Memorandum on Production and Trade 1925 to 1929-30* (Geneva, 1931), of which this volume is a continuation; an analysis of the factors which contributed to the general economic depression since 1929, of which the two most characteristic features have been the disastrous fall in prices and the decline in industrial production in face of a suddenly contracted demand, is given in the recent report on *The Course and Phases of the World Economic Depression* (Geneva, 1931), and also in the *World Economic Survey*.¹

GENERAL INDUSTRIAL ACTIVITY.

The trend of industrial activity in general in the quinquennium 1925 to 1929 and the extent of the slump in 1930 and 1931 may be judged from Table VIII below, giving annual indices, or annual averages of monthly indices, for eighteen countries in different parts of the world.

¹ First issue (1931-32) will appear in August 1932.

Table VIII.

GENERAL INDICES OF INDUSTRIAL PRODUCTION.

Country	1925 to 1929 = 100							1929 = 100	
	1925	1926	1927	1928	1929	1930	1931	1930	1931
<i>Africa:</i>									
Union of South Africa ¹	84	94	98	108	116	124	...	107	...
<i>America:</i>									
Canada*	79	92	99	109	121	103	87	85	72
United States*	95	99	97	101	108	88	74	81	68
Chile* . . . . .	.	.	(89)	(97)	(114)	(119)	...	104	...
<i>Asia:</i>									
Japan (8 series)*	90	91	97	104	118	110	109	94	92
(12 series) ² . . . . .	.	.	(100)	(108)	(121)	(114)	(109)	95	90
<i>Union of Soviet Socialist Republics*</i>	62	83	96	116	143	175	195	122	136
<i>Europe (excl. U.S.S.R.):</i>									
Germany:									
Annual index ³	89	85	108	109	109	94	[77]	86	[70]
Monthly index*	87	84	107	110	112	92	76	82	68
Austria* . . . . .	.	.	(100)	(111)	(114)	(100)	(88)	87	77
Belgium:									
Annual index ⁴	82	95	103	110	111	99	89	89	80
Monthly index*	80	95	105	110	111	93	84	84	76
Denmark ⁵ . . . . .	.	.	(100)	(108)	(117)	(127)	...	109	...
France*	88	103	90	104	114	115	102	100	89
Hungary* . . . . .	.	.	(100)	(99)	(97)	(84)	(68)	86	70
Norway ⁶ . . . . .	.	.	(100)	(111)	(123)	(124)	...	101	...
Poland*	84	82	102	116	115	95	80	82	70
United Kingdom:									
Board of Trade* ⁷ . . . . .	.	.	(101)	(99)	(105)	(97)	(88)	92	84
London and Cambridge*	99	76	109	104	112	100	85	89	76
Sweden:									
Kommerskollegium ⁸	87	95	98	104	117	116	...	99	...
Sveriges Industriförbund*	90	93	97	109	110	106	94	96	85
Czechoslovakia*	88	86	100	111	115	101	90	87	78
<i>Oceania:</i>									
New Zealand ⁹	92	102	102	98	105	...	...	...	...

* The source and original basis of this series is indicated in Appendix VI, Table 1.

¹ Index of volume of output, all classes of industry, original basis 1920-21 (years ending June 30th), Office of Census and Statistics.

² Mitsubishi Economic Research Bureau. Basis: 1927.

³ Annual index of the Institut für Konjunkturforschung, including 81 series and based on 1928=100. 1931: estimated by the Institut.

⁴ Annual index compiled by M. François Cracco, original basis: 1923 to 1925.

⁵ Annual index of the Statistiske Departement, basis: 1927.

⁶ Annual index of the Statistiske Centralbyrå, basis: 1927.

⁷ Board of Trade index recalculated on the basis: average 1924, 1927 to 1929 = 100.

⁸ Annual index of the Kommerskollegium, original basis: 1913.

⁹ Index of values added by industry, at 1909 to 1913 prices. Original basis: 1919-20. Years ending March 31st of the following year. Census and Statistics Office.

The industrial activity of most of these countries reached its peak in 1929. The production index for Hungary has, however, dropped steadily since 1927, the indices for Poland and Germany (annual index) reached their highest point in 1928, remained stationary in 1929 and have since declined rapidly, while the indices for France and some minor industrial countries — *e.g.*, Denmark, Norway, Chile¹ and the Union of South Africa² — were highest in 1930. Industrial production in Sweden, according to the annual official index, also dropped little in 1930. The production index for Soviet Russia — which constitutes a self-contained economic system, practically divorced from the rest of the world — continued to rise rapidly in 1930 and 1931.

In the United States, Germany, the United Kingdom, Belgium, Poland and Hungary, the production indices for 1930 were lower, and in most cases considerably lower, than the average for the preceding quinquennium; in Canada and Czechoslovakia, industrial activity dropped from the high peak of 1929 to a point still slightly above that average, while the two indices for Japan remained at a relatively high level. In 1931, the production indices of all the countries for which figures are available, with the exception of Soviet Russia, show the disastrous effects of the continuation and intensification of the industrial depression.

Certain attempts have been made to construct a rough measure of the changes in industrial production in the principal industrial countries of the world. Thus the German *Institut für Konjunkturforschung* has calculated a monthly international production index representing a weighted average of the indices for ten of the more important industrial countries, including Soviet Russia. The weighting is based on "a combination of the net production values, the number of workers and the horse-power installed in the industries" of the countries concerned. These countries and the weights accorded to each of them are as follows: The United States of America (53.4), Germany (13.8), the United Kingdom (11), France (8.3), the Union of Soviet Socialist Republics (5.5), Japan (2.8), Canada (2.6), Sweden (1), Poland (0.9), Austria (0.7). In the following table, a comparison is made between the annual averages of this index,³ converted on to the basis: 1925-1929 = 100, and the composite index of the world output of industrial raw materials described in the previous chapter (I). In addition, series representing weighted averages of the general production indices of the twelve countries (excluding Soviet Russia) for which figures are shown since 1925 in Table VIII above (II) and the indices of (A) 17 and (B) 18 countries respectively (*i.e.*, excluding and including Soviet Russia)⁴ since 1927 (III) are also shown. For reasons of comparability, Soviet

¹ The index for Chile does not cover the extractive industries. Had these industries been included, this index would also have shown a decline since 1929.

² The year July 1929 to June 1930.

³ For further details regarding this index, see *Wochenbericht des Instituts für Konjunkturforschung*, October 21st, 1931.

⁴ A homogeneous index for manufacturing production in Soviet Russia over the whole period 1925 to 1931 does not exist. The Russian index employed in the calculation of the international production index has been constructed by linking up two different indices, the earlier of which ceased to be published in 1929 while the more recent covers the period 1927 to 1930 and has since been calculated by the German Institut für Konjunkturforschung from absolute figures of production values at fixed prices (*Vierteljahrshäfte zur Konjunkturforschung*, 6. 4. B. 1932).

Russia is excluded from the raw-material production index as given under (II) and (IIIA) and 1927 has been adopted as the base year for this index under (IIIA) and (IIIB). As data concerning "net value added in manufacture" are available for only a few of the countries included in Table VIII, they have been ignored in constructing the schedule of weights for the international averages shown under (II) and (III). This schedule of weights, details of which are shown in the footnote below,¹ is based on data relating both to the number of persons gainfully occupied in industry (including mining), according to recent population censuses, and to the total horse-power of prime engines and motors installed in industry in the various countries. Thus the weighting differs in some respects from that adopted for the index of the Institut für Konjunkturforschung.

Up to 1930 inclusive, there is a striking correspondence between the international index of industrial production of the Institut für Konjunkturforschung and the index of world production of industrial raw materials, a correspondence which is, indeed, not wholly significant. Reference has been made above to the effects of improvements in the technique of manufacture: in the years 1925 to 1929, a period of intensive "rationalisation" in industry both in Europe and North America, it is certain that in the world as a whole the average product obtained from a given quantity of raw materials was constantly rising. Again, as world stocks of raw materials increased considerably in 1930, the consumption of these materials and thus the

¹ *Schedule of Weights:*

Countries	Twelve countries (Series covering years 1925 to 1931)			Countries	Eighteen countries (Series covering years 1927 to 1931)		
	Relative share in:				Relative share in:		
	Aggregate industrial population	Aggregate horse-power installed in industry	Weights chosen		Aggregate industrial population	Aggregate horse-power installed in industry	Weights chosen
Belgium	26	23	25	Austria	16	9	13
Canada	16	41	29	Belgium	23	21	22
Czechoslovakia	39	20	29	Canada	14	37	26
France	124	103	114	Chile	6	4	5
Germany	226	165	195	Czechoslovakia	34	19	26
Japan	100	33	66	Denmark	6	4	5
New Zealand	2	2	2	France	109	94	101
Poland	22	26	25	Germany	199	151	175
Sweden	14	22	18	Hungary	11	10	10
Union of South Africa	11	8	8	Japan	88	30	59
United Kingdom	141	145	143	New Zealand	2	2	2
United States of America	279	412	346	Norway	5	6	6
				Poland	19	24	21
				Sweden	12	20	16
				Union of South Africa	10	7	8
Total: 1,000	1,000	1,000		United Kingdom	124	133	129
				United States of America	245	377	311
				Union of Soviet Socialist Republ. . . .	77	52	65
				Total: 1,000	1,000	1,000	

For the purpose of calculating the series covering seventeen countries, the schedule has been adjusted so that the total of the weights used amounts to 1,000.

output of manufacturing industry must have declined more rapidly than raw-material production in that year; the two indices given under I, however, show such a relative movement only in 1931. The close correspondence between series I (a) and I (b) up to 1930 appears therefore to be to some extent accidental and may result in part from the inclusion of Soviet Russia (whose manufacturing and raw-material indices rose rapidly throughout the period considered), and in part from the choice of weights for the index of the Institut für Konjunkturforschung.

Table IX.
INDUSTRIAL PRODUCTION INDICES COMPARED WITH INDICES OF PRODUCTION
OF INDUSTRIAL RAW MATERIALS.

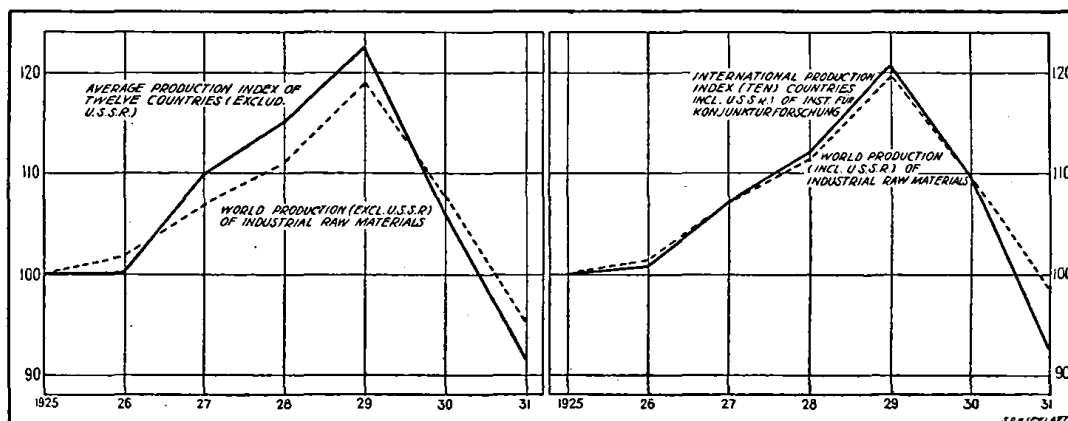
Base period	Nature of indices	1925	1926	1927	1928	1929	1930	1931
Average 1925-1929 = 100	I. (a) International production index (Institut für Konjunkturforschung)	92.6	93.3	99.1	103.7	111.7	101.4	85.5
	(b) World production (incl. U.S. S.R.) of industrial raw materials	92.2	94.2	99.1	103.3	111.0	101.4	91.2 ¹
Average 1925-1929 = 100	II. (a) Weighted averages of production indices of <i>twelve</i> countries (excluding U.S.S.R.)	91.3	91.5	100.4	105.0	111.8	96.9	83.6
	(b) World production (excl. U.S. S.R.) of industrial raw materials	92.7	94.4	99.1	103.0	110.5	99.8	88.3 ¹
1927 = 100	III. A. (a) Weighted averages of production indices of <i>seventeen</i> countries (excluding U.S.S.R.)	.	.	100	105.1	112.0	97.5	84.1 ¹
	(b) World production (excl. U.S. S.R.) of industrial raw materials . . . . .	.	.	100	103.9	111.4	100.6	89.1 ¹
	B. (a) Weighted averages of production indices of <i>eighteen</i> countries (including U.S.S.R.)	.	.	100	106.2	114.4	103.1	91.9 ¹
	(b) World production (incl. U.S. S.R.) of industrial raw materials . . . . .	.	.	100	104.2	112.0	102.3	92.0 ¹

¹ Provisional index, subject to revision.

The somewhat differently weighted index for twelve countries, excluding Soviet Russia, which has been calculated for the purpose of the present publication (II (a)) and the index of the raw-material production of the world, again excluding Soviet Russia, show a relative movement which conforms more closely to that which might be anticipated *a priori* for the reasons indicated above. Index II (a) rises more rapidly in the period 1925 to 1929 and drops more rapidly in the years 1930-31 than the index of the Institut für Konjunkturforschung. The two sets of indices are contrasted in the following diagrams, in which 1925 has been taken as a base year.

Diagram VI.

INDUSTRIAL PRODUCTION INDICES COMPARED WITH INDICES OF PRODUCTION OF INDUSTRIAL RAW MATERIALS.¹

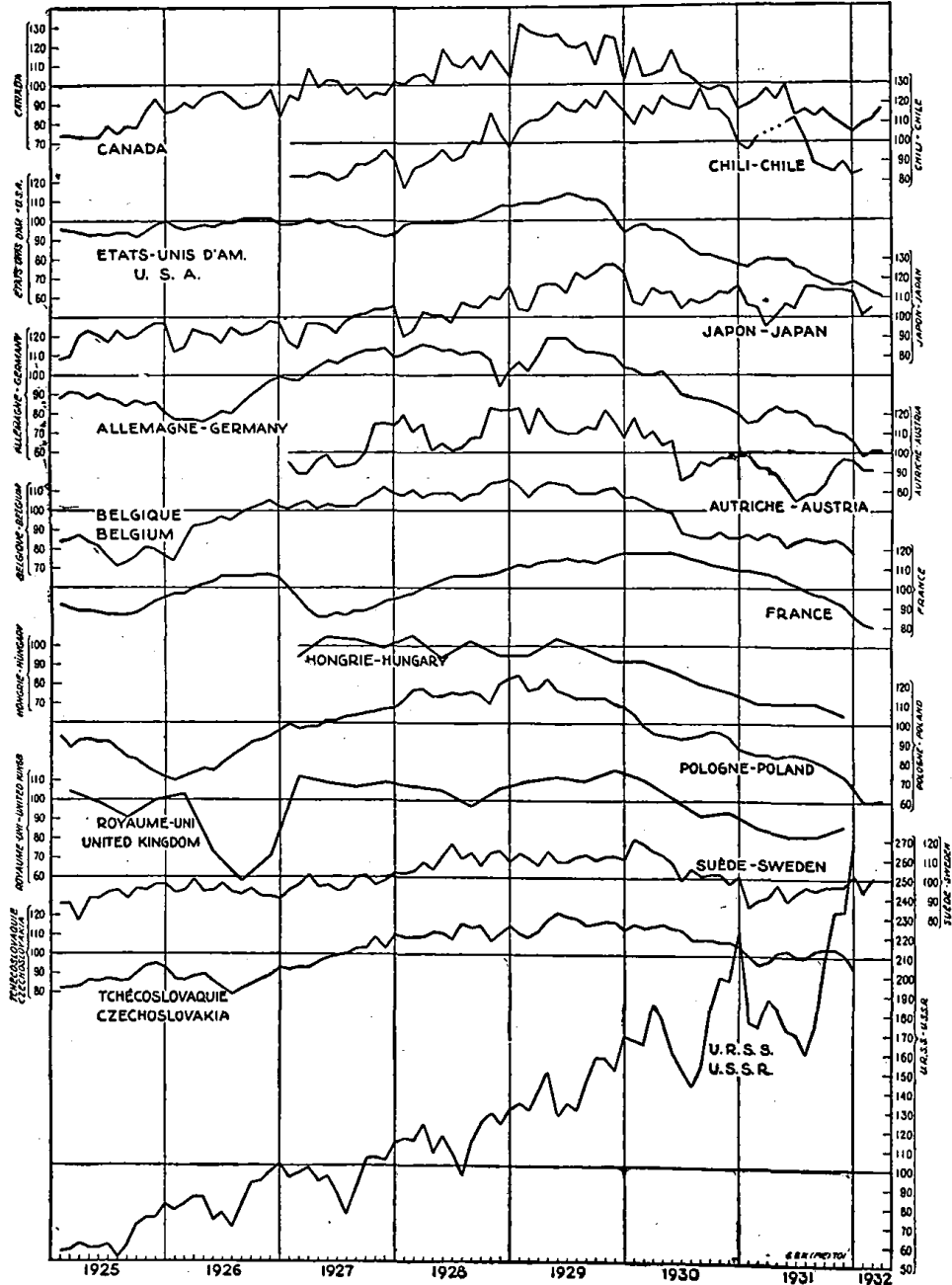


¹ See Table IX.

According to the first diagram, industrial production in 1931 in the main industrial countries other than Soviet Russia was approximately three-quarters of what it had been in the peak year 1929, somewhat more than nine-tenths of what it had been in 1925 and about five-sixths of the average for the quinquennium 1925 to 1929. The index figure for 1927, the year from which production indices are available for a number of additional countries, happens to be very close to this quinquennial average. The effect of the inclusion of the additional five or six countries will be seen from the series III A (a) and III B (a) shown in Table IX above. The movement of the former of these series, which excludes Soviet Russia, suggests that, had it been possible to extend it back to 1925, it would have shown an even greater divergence from the index for raw-material output than does the series relating to twelve countries given in Diagram VI. In index III B (a), Russia is given a greater relative weight than in the index of the German Institut für Konjunkturforschung; this largely explains the higher level of the former index, especially in 1931 (91.9, as compared with 86.3 of the German index, if 1927 is taken as base period in both cases). It must again be emphasised that Soviet Russia, the index for which has risen very greatly throughout the depression years, constitutes an economic system which is practically divorced from the rest of the world. Its inclusion in the international average therefore seriously detracts from the value of this average as a measure of the effects of the general industrial depression.

On the following page are shown, in graphical form, the monthly movements of the various monthly national production indices set forth in Table I of Appendix VI.

Diagram VII.
NATIONAL INDICES OF INDUSTRIAL PRODUCTION.
 (Basis : Average 1925-1929.)¹



¹ Original basis has been maintained in the case of Chile (1927-1929), Austria (1927) and Hungary (1927). The index shown for the United Kingdom is that of the London and Cambridge Economic Service. See Appendix VI, Table 1.

Attention has been drawn above to the fact that, in certain countries, industrial activity appears to have been but little affected by the economic depression until the latter part of 1930. In several cases, indeed, the annual production indices were higher that year than in 1929. But in 1931 these countries were also caught in the depression and none of the other countries for which figures are available escaped further reduction of output. The heaviest drop over the period 1929 to 1931 has taken place in the United States, Canada, Germany, Hungary and Poland. Austria, whose heavy industries, like those of Germany, Hungary and Poland, were largely dependent on supplies of foreign capital, also suffered severely. In July 1931, the Japanese index rose steeply and remained at a high level throughout the second half of the year : the drop in January and February 1932 appears to have been largely of a seasonal character. The indices for Austria and for Sweden and the United Kingdom—two countries that abandoned the gold standard in the autumn for which monthly information is available — show a substantial recovery in the last quarter of 1931. The Austrian index was considerably lower in January and February 1932, but the recovery in the United Kingdom and Sweden appears to have been relatively well maintained and, in both these countries,¹ the figures shown for the early months of 1932 are higher than those for the corresponding period of the previous year.

In the United States, the decline was checked in the last quarter of 1931, but in this country, as in France, Germany and Poland, the depression deepened rapidly in the first quarter of the present year.

It is obviously impossible to examine here the various factors that have determined the relative changes in industrial activity in the countries concerned. Certain of the most important of these factors, such as the relative expansion in productive capacity, especially in the industries producing capital goods, in the period preceding the depression, the primary or secondary character of the industrial recession in the various countries, the effects of changes in the volume and direction of international capital movements and of the divergent movements of long-term interest rates, the effects of the fall of prices on debtor countries, the relative resilience and adaptability of the various economic systems, the industrial structure of the various countries, the relation of exports to total production, the state of domestic and foreign markets, etc., are discussed in other publications of the League of Nations Secretariat.² Two factors, however, assumed great importance towards the end of 1931 — first, the rapid strangulation of international trade through the introduction by many countries of increased tariffs, import contingents and exchange restrictions, and, secondly, the suspension of the gold standard by the United Kingdom and the majority of the British dominions, the Scandinavian countries and a larger number of other States the world over. The measures taken to reduce imports have naturally affected directly the export industries of the countries normally supplying the markets concerned. Although domestic industry in certain countries has received a temporary fillip through the shutting-out of

¹ The two indices for the United Kingdom show an opposite movement.

² *The World Economic Survey, 1931-32*; *The Course and Phases of the World Economic Depression* (Geneva, 1931) — especially pages 232 to 246.

imports, the contraction of international trade and the deterioration of the export markets have in general more than offset any such influence.

In the countries that suspended the gold standard, the export industries in general received an immediate stimulus and those of their competitors were correspondingly embarrassed. In this connection, the indices¹ of the *Sveriges Industriförbund* of production in home-market industries and export industries in Sweden are of great interest :

(1925 to 1930 = 100.)

Grouping	1925	1926	1927	1928	1929	1930	1931	1931				1932			
								IX	X	XI	XII	I	II	III	IV
Home market	91	95	95	111	105	103	94	99	97	94	104	96	102	100	104
Export industries	84	86	98	103	117	111	90	88	91	94	98	85	94	83	77

When Sweden suspended the gold standard, her export industries benefited immediately and expanded their output steadily until the end of the year. It was three months before this improvement reacted upon the home-market industries, which declined until December. Since then, however, these industries have maintained their position, while the activity of the export trades has been reduced. The figures for previous years are also of interest in view of the relationship between changes in the volume and composition of international trade and the industrial production of Sweden. The fluctuations have been far more violent in the export industries than in the home-market industries ; the former reached their zenith in 1929, while the latter have declined since 1928.

Certain indications may be given regarding some of the more important countries, for which no general production index is available. Italy would appear to have suffered somewhat less than the majority of other countries in 1930 and 1931. On the basis of returns of unemployment and of the number of hours worked per person employed, it has been estimated² that industrial activity in Italy in December 1931 was 14 per cent lower than in December 1930, and 22 per cent lower than in December 1929. In spite of the deterioration of Italy's two principal foreign markets, Germany and the United States of America, the quantum of her exports of manufactured products increased by 1 per cent in 1931 and fell less than 6 per cent in the preceding year.

An index of the physical output of the export industries in Finland is given below together with an index representing the value of the products of home-market industries divided by the special index of the wholesale prices of home-market products which is available for that country.³

¹ In these indices, seasonal variations have been eliminated.

² Confederazione Generale Fascista dell'Industria Italiana.

³ Basic series published in *Unitas*.

(1926=100.)

Grouping	1927	1928	1929	1930	1931
Export industries	118	119	114	106	96
Home-market industries	102	117	115	109	88

Finnish industry enjoyed a boom, partly of a speculative character, in the years preceding 1928 ; in the latter half of 1928 and the first half of 1929, the country suffered from an acute financial crisis, and the consequent credit stringency naturally reacted upon production. Although the financial situation improved in the latter half of 1929 and in 1930, production continued to decline — the timber export industry was especially affected — and the country was gradually involved in the general economic depression, as is shown by the rapid drop of the production indices in 1931.

The Netherlands were little affected until the latter part of 1930, but have since suffered severely. The percentages of unemployed to total workers covered by the voluntary unemployment insurance statistics were 2.6, 5.5 and 11.7 at the end of June 1929, 1930 and 1931 respectively. At the end of December 1931, the percentage had risen to 27.8 and two months later to 35.1. Shipbuilding, the principal capital industry of the country, was especially depressed.

From the scanty information available, it would appear that industrial production contracted little or not at all in many countries with relatively undeveloped industries. In these countries, the principal industries normally supply only a fraction of domestic demand ; in the past two years, they have benefited in many cases by considerable increases in tariff protection and again in many cases by the depreciation of national currencies. Further, in such countries, industrial production consists largely of non-durable consumers' goods, the demand for which, as shown below, has remained relatively stable. In Greece, the value of industrial production rose by 45 per cent between 1925 and 1929 and fell less than 8 per cent in 1930. The manufacturing industries of Brazil — principally textiles — after a set-back in 1930, appear to have recovered in 1931. In Lithuania, industry has in general been well maintained throughout the last two years, and, in certain branches — especially those immediately affected by building activity — considerable expansion is recorded. In Estonia, on the other hand, conditions have been unfavourable, especially in the export industries. The number of workers employed in large-scale and medium-sized enterprises on January 1st, 1932, was 8½ per cent below the corresponding figure for 1931 and 14 per cent below that for January 1st, 1929.

Fully comparable series for Russia covering the whole period under examination are not available : the series shown throughout this chapter are in many cases the result of the linking of two separate and overlapping series, and are in certain cases taken from non-Russian sources. Whatever the defects of the statistical series may be, however, the development to which they point is clear. There was, both in 1930

and 1931, a very considerable increase in the physical output of industry in Russia and in the productive capacity of the country in accordance with the policy of rapid forced industrialisation embodied in the Five-Year Plan. The available Russian statistics show an increase in the total value of industrial production of 30 per cent in 1930 (at constant prices) and of approximately 22 per cent in 1931. This persistent and rapid growth has naturally altered Russia's share in world industrial production. A very rough indication of this change is afforded by the changes in the percentage share of Russia in world production of industrial raw materials, according to the aggregates calculated for the purpose of the world index set forth in the previous chapter :

	%	%	%
1925 . . .	3.7	1928 . . . 4.5	1930 . . . 5.8
1926 . . .	4.0	1929 . . . 4.6	1931 . . . 7.9 ¹
1927 . . .	4.3		

¹ Partly based on estimates.

PRODUCTION BY CLASSES OF GOODS.

The relative changes in the production of different classes of goods resulting from changes in taste and custom, from new inventions and improvements in the technique of production and transport, from shifts in demand consequent upon a rise in the general standard of living, etc., have been discussed at some length in previous issues of the *Memorandum on Production and Trade*. Certain of these changes, especially during the period 1925 to 1929, are reflected in the indices of the output of various individual raw products and groups of products dealt with in the preceding chapter. The present section will be mainly concerned with changes more especially characteristic of the business cycle — namely, the relative changes in the demand for — and hence the output of — investment goods on the one hand and consumers' goods on the other, and various classes of investment goods and consumers' goods respectively.

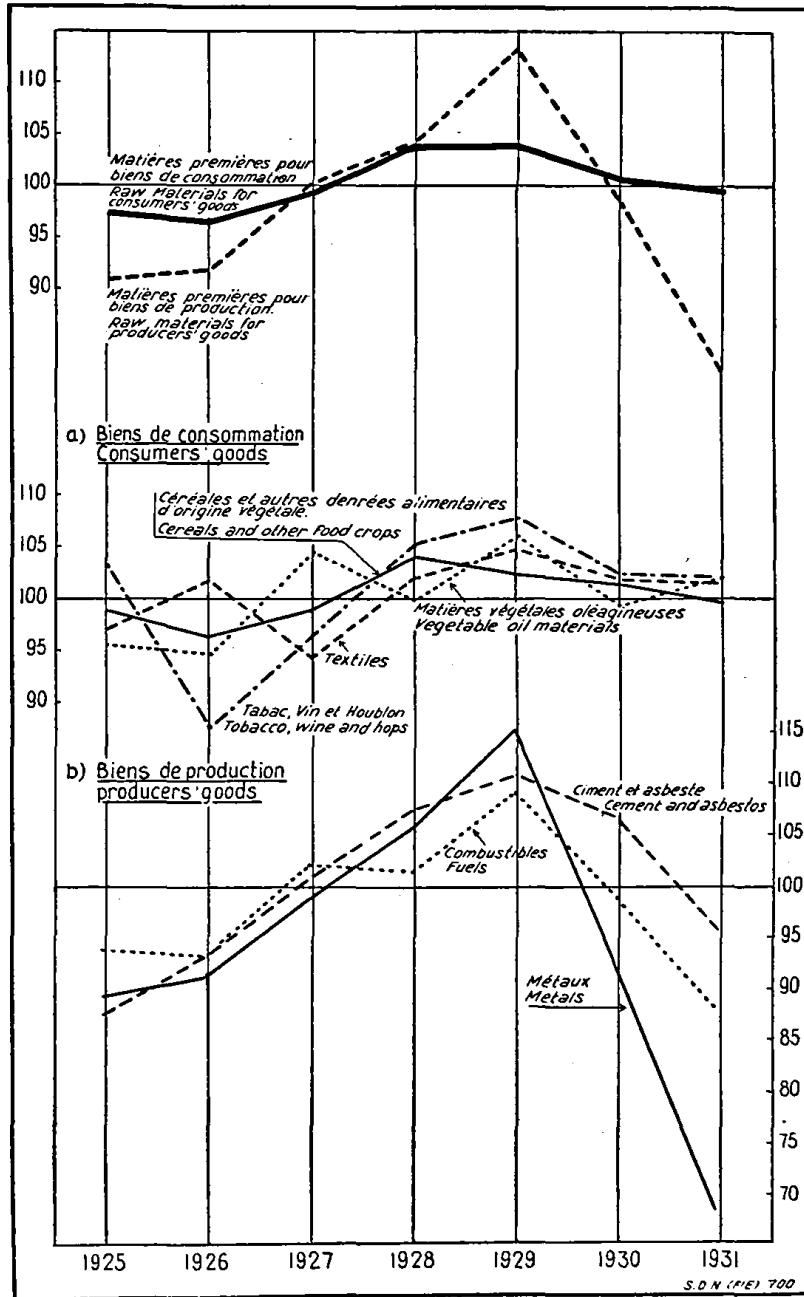
The different movements in the output of investment goods and consumers' goods are indeed apparent from the relative changes in the output of the various crude products discussed in the previous chapter. The first part of the following diagram shows: (a) raw materials mainly for non-durable consumers' goods, covering crude foodstuffs (cereals and other food crops, meat, wine and hops, coffee, cocoa and tea), vegetable-oil materials, tobacco and textiles; (b) raw materials mainly for investment goods and certain durable consumers' goods, covering metals, cement, asbestos, fuels and chemicals.¹ Neither of these two groups consist exclusively of raw materials for investment or consumers' industries respectively, but they are sufficiently representative for their movements to be significant.

¹ Wood-pulp and rubber, which constitute separate groups in the raw-material production index but which are difficult to classify for the present purpose, as they serve for the manufacture both of investment goods and consumers' goods, have here been left out of consideration. They are, in fact, the two smallest raw-material groups and their exclusion is therefore of little consequence.

Diagram VIII.

CHANGES IN OUTPUT OF RAW MATERIALS FOR CONSUMERS' AND PRODUCERS' GOODS.

(Basis : Average 1925 to 1929 = 100.)



The second part of the diagram represents the movement of a few typical raw-material groups — namely, cereals and other food crops, tobacco, wine and hops, textiles and vegetable-oil materials on the one hand, and metals, cement and asbestos and fuels on the other. The diagrams relate in all cases to the output of the world as a whole, excluding Soviet Russia.

The various series illustrated in the diagram are given below :

INDICES OF WORLD OUTPUT (EXCLUDING UNION OF SOVIET SOCIALIST REPUBLICS) OF CRUDE PRODUCTS.
(AVERAGE 1925 TO 1929 = 100.)

Groups	1925	1926	1927	1928	1929	1930	1931 ¹
(a) Raw materials for consumers' goods	97.4	96.4	99.1	103.3	103.9	101.3	99.8
(b) Raw materials for producers' goods	90.7	91.8	100.0	104.2	113.1	98.5	82.0
<i>Typical commodity groups :</i>							
Cereals and other food crops	98.8	96.1	98.9	104.0	102.2	101.4	99.6
Tobacco, wine and hops	103.2	87.8	96.1	105.1	107.6	102.4	102.0
Textiles	97.0	101.8	94.2	101.9	104.8	101.9	101.4
Vegetable-oil materials	95.5	94.6	104.3	99.7	105.9	99.3	102.9
Metals	89.1	91.2	98.7	105.6	115.1	92.5	68.5
Cement and asbestos	87.5	93.3	100.8	107.2	110.9	106.8	95.6
Fuels	93.9	93.3	102.0	101.4	109.1	99.0	88.0

¹ Provisional indices, subject to revision.

The contrast between the general movements of the two categories of crude products is very striking. The general index of raw materials for consumers' industries rose comparatively slightly up to 1929 and, although it subsequently declined, it has remained somewhat above the average for the five years preceding the turn of the business cycle. The commodities to which this index relates are, with the exception of artificial silk, all of agricultural or pastoral origin and are produced by a vast number of independent producers. The output of such commodities is therefore difficult to control — such schemes of partial restriction as have been attempted have had but little effect on the total supply. On the other hand, the supply of raw materials mainly for investment industries, which are practically all of mineral origin — world figures for timber production were not available for inclusion in the index — rose very rapidly in the boom years 1925 to 1929 and have since contracted still more rapidly (by almost 30 per cent from 1929 to 1931). The production of these raw materials is highly concentrated and is mainly in the hands of large undertakings which are better able than small independent producers effectively to restrict output when demand falls off and thereby to check the fall in prices. Although with the downward turn of the business cycle the demand for raw materials for consumers' industries contracted less, the world supply of these products was less adaptable — in some cases, indeed, world output continued to expand in 1930 and 1931 — and consequently, as will be shown in the following chapter, their prices fell more heavily.

Unfortunately, in the national industrial production indices of very few countries is a clear distinction made between the output of finished investment

goods and consumers' goods. For Germany, Sweden and Poland,¹ however, composite indices of this kind are available month by month for several years. These three indices are shown below in tabular and graphical form, together with rough indices for the United States of America and the United Kingdom, which have been constructed by combining certain of the sub-series of the general industrial production indices of these countries.²

Table X.

INDICES OF PRODUCTION OF PRODUCERS' AND CONSUMERS' GOODS.
(1925 to 1929 = 100.)

Country and grouping	1925	1926	1927	1928	1929	1930	1931	1929				1930				1931				1932	
								I	II	III	IV	I	II	III	IV	I	II	III	IV		
GERMANY :																					
Producers' goods	87	85	105	108	115	89	68	105	125	119	109	100	93	84	78	72	75	67	56	46	
Consumers' goods	87	82	112	113	106	98	91	108	107	102	106	103	103	94	91	86	96	90	92	86	
POLAND :																					
Producers' goods	80	75	100	124	122	97	73	123	127	120	117	107	96	96	89	77	76	76	63	48	
Consumers' goods	88	81	107	114	109	91	82	122	109	104	103	92	90	92	91	87	88	81	73	68	
SWEDEN :																					
Producers' goods	88	88	95	114	115	108	90	114	113	116	118	122	109	106	99	97	86	86	94	87	
Consumers' goods	93	98	101	104	105	104	99	105	108	104	103	113	103	99	102 ³⁽⁷⁹⁾	102	109	105	105	110	
UNITED KINGDOM (1924, 1927-1929 = 100):																					
Producers' goods	.	.	102	99	107	97	78	105	111	107	107	108	102	93	85	83	80	73	77	78	
Consumers' goods	.	.	101	100	101	90	88	99	102	98	101	94	90	87	89	85	86	87	95	93	
U.S.A. :																					
Producers' goods	93	99	92	104	113	83	54	110	124	124	94	96	91	79	64	65	59	48 ⁴⁽⁴¹⁾	48 ⁴⁽³⁵⁾		
Consumers' goods	97	97	102	99	104	88	89	104	107	106	99	95	89	85	87	88	91	93	86	83	

¹ The composition of the indices is as follows :

Sweden : Producers' industries. — Mining, iron and steel, metal working, engineering, saw mills, pulp, earth and stone industries, chemicals ;

Consumers' industries. — Paper, textiles, leather, household goods, food and drink.

Poland : Producers' industries. — Iron-ore mining, metallurgy, building, mineral, metal, machine and chemical industries.

Consumers' industries. — Textiles, clothing, leather, food, salt, paper and printing.

Germany : Producers' industries include coal, iron, non-ferrous metals, building materials, machinery, motor vehicles.

Consumers' industries include textiles, footwear, glassware, porcelain, paper, the watch industry, pianos.

In the German index, individual series are in many cases divided between the two groups. Food industries, the demand for the products of which is highly inelastic, are excluded from the German index, but some such industries — and in particular brewing, distilling, chocolate manufacture, etc. — are included in the Swedish and Polish indices ; on the other hand, certain durable consumers' goods, such as furniture, household goods, musical instruments, motor-cycles, etc., the demand for which is very elastic, are included both in the German and the Swedish indices but excluded from the Polish index.

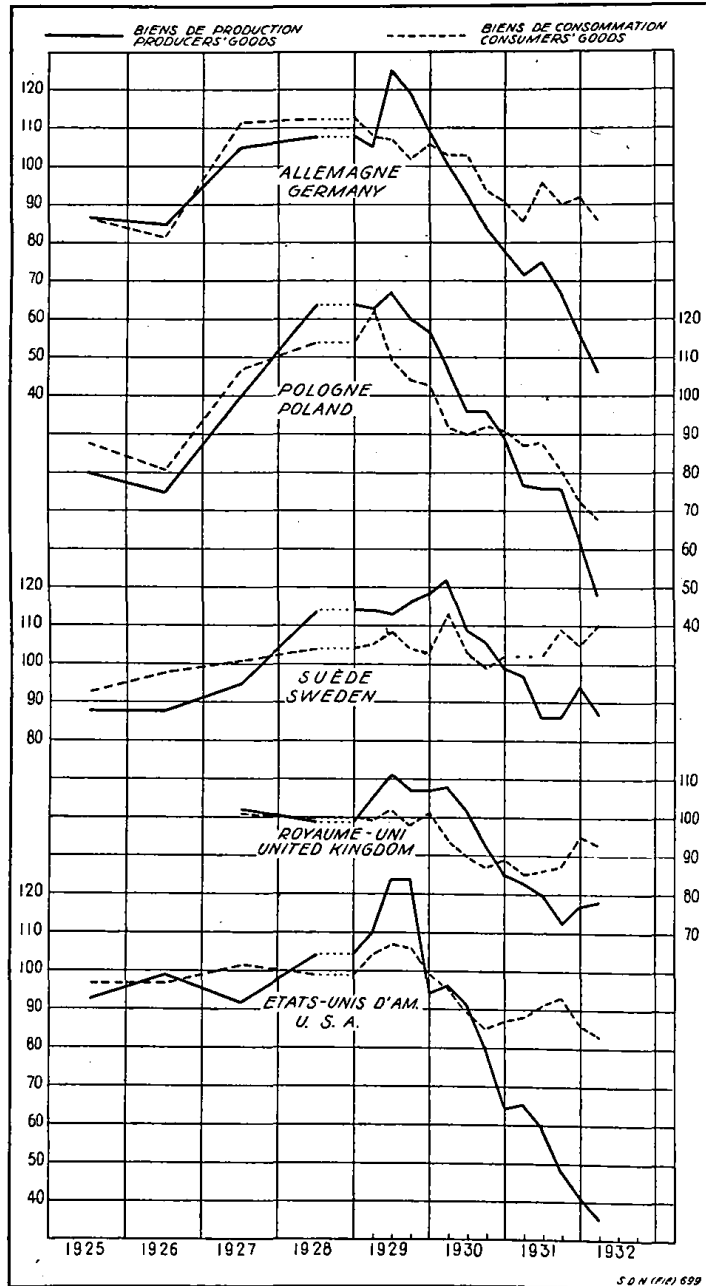
² Investment industries are represented by iron and steel, non-ferrous metals and cement in the case of the United States ; iron and steel industries, non-ferrous metals, engineering and shipbuilding in the case of the United Kingdom. Consumers' industries are represented in both countries by textiles, leather and food industries.

³ Labour dispute in textile industries.

⁴ Excluding non-ferrous metals.

Diagram IX.

MOVEMENTS OF INDICES OF PRODUCTION OF PRODUCERS' AND CONSUMERS' GOODS.¹
(Basis : 1925 to 1929 = 100.)²



¹ 1925-1928 : annual averages. From 1929 onwards : quarterly averages.

² For United Kingdom, basis : 1914, 1927-1929 = 100.

In all the countries shown, the investment industries record a far more rapid rise than the consumers' industries up to the turn of the business cycle and have since fallen much more. As was to be anticipated for the reasons set forth above, the variations of both groups over the period considered — and especially since the outbreak of the depression — were more marked than in the case of the world output of raw materials for consumers' and investment industries. In all the countries shown except Germany, the investment industries fell more from 1930 to 1931 than from 1929 to 1930. In Germany and Poland, consumers' industries began to decline as early as 1928. In these two countries, and in the United Kingdom and the United States of America, there was a decided slowing down in the contraction of the consumers' industries in 1931; and the Swedish index for consumers' industries, which dropped heavily in the first quarter of 1931 as a result of an extended labour conflict in the textile factories, was higher in the three subsequent quarters than in the corresponding period of 1930.

Individual investment and consumers' industries have, of course, been affected in very different ways.¹ There is a broad difference in the conditions of the demand for durable consumers' goods — such as motor vehicles and certain household articles, the replacement of which can be postponed — and non-durable goods — such as textiles, footwear and foodstuffs. Consumers' goods requiring the investment of savings and those bought out of current income have again been affected in very different ways by the contraction of incomes in the past two years. This distinction roughly corresponds in practice to that between durable and non-durable consumers' goods. Between textiles and footwear and small household goods on the one hand and foodstuffs on the other, there is a further line of demarcation, the latter being, of all the broad consumers' groups, the most inelastic. Differences appear again between goods supplying primary and secondary needs, the latter being relatively sensitive, *ceteris paribus*, to a contraction in incomes. In certain cases, however — especially where the demand had previously been rapidly expanding, as in the case of silks, wireless apparatus, telephones, etc. — relatively “inessential” articles have suffered little.

The investment industries have likewise been subject to varying conditions of demand. The conditions determining the output of agricultural and textile machines, for example, are obviously not the same—in the last two or three years, the former would appear to have been the more seriously affected as a result of the generally depressed financial position of agriculture. Locomotive construction and shipbuilding — industries producing highly durable products, of which there now exists an excessive supply — have suffered a catastrophic fall in activity; electrical engineering, on the other hand, has been relatively well maintained.

¹ The significance of the changes in the output of each industry depends largely on the long-term trend of development of the industry in question. A slight absolute decline in output has represented in certain cases a very considerable deviation from trend, and, conversely, in certain cases a heavy fall has reflected no more than a moderate accentuation of this trend.

Estimates of the percentage drop in the output of various producers' and consumers' goods between the last cyclical peak, generally occurring in 1928, and the end of 1931 are available for Germany.¹ These are set forth below, together with analogous figures calculated for the United States,² which, however, show the percentage contraction from the average monthly output in 1928.

Germany.		U. S. A.	
<i>Producers' Goods:</i>	<i>Consumers' Goods:</i>	<i>Producers' Goods:</i>	<i>Consumers' Goods:</i>
Wood-pulp . . . — 27	Foodstuffs . . . — 9	Electrical goods ¹ . . — 43	Silk consumption + 9
Rolling-mill products : . . .	Footwear . . . — 18	Cement (Portland) — 43	Foodstuffs . . . — 5
Iron, steel . . . — 43	Paper — 23	Commercial motor vehicles — 52	Gloves — 5
Non-ferrous . . . — 51	Textiles — 32	Electric motors ¹ . . — 53	Tobacco products — 10
Cement — 54	Passenger cars — 39	Machine-tools . . . — 69	Cotton textiles . . — 20
Machines — 58	Clocks — 41	Woodworking machines — 72	Books sold — 20
Steel — 61	Porcelain — 56	Steel castings . . . — 73	Boots and shoes . . — 26
Iron — 64	Pianos — 81	Foundry equipment — 82	Vacuum cleaners ³ — 38
Lorries — 65	Motor-cycles . . — 85	Locomotives ² . . . — 90	Household furniture ⁴ — 50
			Dom. power pumps — 66
			Baths — 72
			Passenger cars . . . — 79
			Enamelled ware . . — 83

¹ Values : the quantitative reduction in output has, of course, been less.

² Basis : average 1927-1929.

³ Average Sept.-Nov. 1931.

⁴ Shipments expressed in working days' production. Grand Rapids District.

Up-to-date detailed statistics of this kind are unfortunately not available for other countries. Very complete annual production statistics are published for the Scandinavian countries and Finland, but the most recent figures refer only to 1930. Information of a somewhat fragmentary character regarding other countries may be obtained from the tables in Appendix VI relating to the activity of individual industries.

In the United States, heavy capital equipment has suffered most of the investment group. After the tremendous extension of the capacity of American foundries in the boom years, new investments in foundries have practically ceased. The demand for machine-tools, which are of a less durable character, has proved somewhat less elastic. For each country, the five consumers' goods shown which have fallen most are of a "durable" nature, and none of these, with the exception of certain kinds of porcelain and enamel ware, are of an indispensable character.

The differential movement in automobile production (and consumption) in the United States and Germany illustrates the influence of another factor—the relative "saturation" of various markets. In the United States, in 1929, there were more than twenty cars for every hundred inhabitants; the capacity of the motor industry was approximately 8,000,000 cars a year and the problem of how the demand was

¹ *Wochenbericht des Instituts für Konjunkturforschung*, January 20th, 1932.

² From absolute data published in *Survey of Current Business*. The averages of the monthly figures for the last three months of 1931 have been used for the purpose of the calculation.

to be maintained was already a serious one. In Germany, in the same year, there was, roughly, one car for every hundred persons and the sales were expanding rapidly.

Indices based on returns of the gross output of producers' and consumers' goods in Soviet Russia are given below. The changes in this country naturally have a significance quite different from elsewhere, as they reflect a deliberate State policy of forced industrialisation.

(1926 to 1929 = 100.)

Grouping	1926	1927	1928	1929	1930	1931
Producers' goods	68	85	107	140	199	249
Consumers' goods	75	84	107	133	159	187

The changes in the composition of Russian imports are of interest in this connection. From 1926-27 onwards, the proportion of capital goods in total imports has been steadily rising. Imports of metals, metallurgical products, electrical machinery and apparatus represented 31.4 per cent of total imports in that year ; in the first six months of 1931, such imports amounted to 73.7 per cent of the greatly increased total. This large and increasing demand, for the purpose of building up the industrial system of Russia, has naturally affected the countries supplying such capital goods. But for the Russian market, certain of the producers' industries in Germany and elsewhere would have suffered considerably more in the past two years, and especially in 1931.

A warning was stated earlier in this chapter that relative changes in output of different industries did not necessarily reflect corresponding changes in prosperity. In fact, contrary to the experience of past periods of depression, the prices of consumers' goods have fallen more heavily than those of investment goods, the more rapid contraction in the output of which is partly due to the enforcement of a deliberate policy of collective restriction with a view to maintaining prices. This question is discussed at the end of Chapter III.

REVIEW OF IMPORTANT INDUSTRIES.

The recent development of the more important industries for which periodic data are available in various countries is briefly reviewed below. Tables are given in Appendix VI showing indices of productive activity or absolute production statistics relating to the iron and steel industry, mechanical engineering, shipbuilding, the motor-car industry, house-construction, electrical engineering, the generation of electricity, textiles — cotton, wool, natural and artificial silk, linen and coarse fibres — the leather and boot and shoe industries, the rubber industry, timber, paper and printing. These indices cover the majority and, in some cases, all of the important producing countries; but they are disparate in scope and methods of construction and frequently afford only a rough indication of the changes that have occurred in the activity of the industries concerned.

No attempt will here be made to examine in detail the causes of relative movements of individual industries from country to country. Each industry has been to a greater or less extent affected by the broad factors, to which reference has been made above, working on the industrial system of the country in which it is placed. Individual industries have of course gained or suffered also as the result of a number of special factors both external and internal such as changes in essential price relations, relative flexibility of costs, relative ability to adapt production to changing requirements, to hold or capture markets, etc. Thus, for instance, the British cotton industry records an almost uninterrupted decline from 1925 to 1931; on the other hand, the British wool industry, subject to many of the same general disadvantages, has expanded its raw wool consumption by little less than 40 per cent over the same period. Similar examples from other countries and industries could be enumerated *ad infinitum*.

The broad effects of the economic depression of 1930 and 1931 on the main industries have already been emphasised. Of the industries considered below, iron and steel, shipbuilding, mechanical engineering, motor-car production and the timber industry have in general been most seriously depressed. The output of rubber goods and industrial textiles has fallen somewhat less. Electrical engineering has suffered much less than the other branches of engineering and the generation of electricity appears in most countries to have fallen little or not at all in 1930 and 1931. The production of artificial silk rose 6 per cent in the last two years; that of natural silk and wool has, in general, been fairly well maintained throughout the depression. Cotton has suffered most of the major textiles, especially in the industrial countries. Activity in the boot and shoe industries has, in general, dropped relatively little, but most of the other leather manufactures have fallen considerably. In the case of many of the consumers' industries — cotton, wool, silk, boots and shoes — the decline in output was, in most countries, considerably less in 1931 than in 1930. The paper industry has, in general, escaped serious loss. Building activity has expanded throughout the depression in a few countries in which interest rates have remained low and general economic conditions favourable; in certain other countries, the building industry has suffered very greatly, with disastrous consequences for the numerous related trades.

Iron and Steel industry.

The heavy decline in the activity of the investment industries in the past two years has naturally affected the great basic industries very seriously. The world production of both pig-iron and crude steel fell 40 to 45 per cent from 1929 to 1931; the figures for 1930 were lower than the average for 1925 to 1929 and those for 1931 were the lowest since 1922. In 1930, only the Union of Soviet Socialist Republics and some Asiatic countries recorded an increase in output and all countries without exception shared in the general contraction of 1931.

The slump in the iron and steel industry has been most pronounced in the countries which were storm centres of the industrial depression and in which the liquidation of the boom has been most severe — the United States of America and Germany. In both these countries, the capacity of the industry had been enormously expanded in the years preceding the crisis. With the heavy contraction in motor-car output and in constructional engineering — in which steel has been playing an increasingly important part — went the two pillars of the United States industry. The German domestic demand, already seriously curtailed, collapsed with the financial crisis in the middle of 1931 and the subsequent rigorous deflation: real domestic demand for iron products (excluding demand on account of machines, etc., for export) at the beginning of 1932 has been estimated at scarcely more than 10 to 15 per cent of the 1927 figure.¹ Of the other great producers, the United Kingdom has suffered the most, mainly on account of increased imports of iron and steel products at low prices; but, unlike the majority of countries, her output increased considerably in the last quarter of 1931 and in the first quarter of 1932 it stood much higher than in the corresponding period of the previous year. Both France and Belgium record a relatively moderate decline in output in the past two years. The French industry benefited from the maintenance of a high level of capital investments in France throughout the greater part of 1930 — the French heavy industries, in view of the low interest rates prevailing, having been able to carry out schemes of rationalisation throughout the period of depression. Towards the end of 1931, however, activity in the French industry declined very rapidly. The Belgian and Luxemburg industries, which export the great bulk of their production, have maintained their trade at the cost of heavy price cuts.

The recent changes in activity in five important producing countries, which together account for almost three-quarters of the world output of iron and steel, are illustrated by the following figures, which show production in each of the quarters of 1931 and in the first quarter of 1932 as a percentage of production in the corresponding quarter of the preceding year:

Country	Pig-iron					Steel				
	1931				1932	1931				1932
	I	II	III	IV	I	I	II	III	IV	I
U.S.A.	61.2	60.5	52.6	57.2	53.3	65.3	62.9	57.9	64.5	54.4
Germany	54.9	65.6	69.6	62.6	59.5	64.2	77.4	79.7	67.9	54.7
Belgium	77.3	91.9	115.0	102.6	95.7	72.5	89.8	111.7	102.0	100.0
France	88.9	83.0	80.4	72.5	61.6	89.3	83.5	83.7	75.2	64.6
United Kingdom .	52.7	55.3	63.3	79.3	97.7	58.5	63.5	71.8	104.3	98.9

The world iron and steel markets have become highly disorganised in the past two years and world market prices have fallen very rapidly. In the latter part of 1931, the *European Steel Entente*, although it continued to exist on paper, was no longer able to control

¹ Institut für Konjunkturforschung, *Wochenbericht*, March 2nd, 1932.

the output of its members. The German steel cartel was able, by means of a high protective tariff and an agreement with the engineering industry known as the *Avi-Abkommen*, to maintain domestic prices in spite of the fall of the world market. At the beginning of 1932, indeed, domestic prices of iron and steel products in Germany were as much as 100 per cent higher than export prices.

The following table shows the total exports in 1929, 1930 and 1931 of raw and semi-manufactured iron and steel (including all products on iron and steel plants proper) from five of the most important producing countries. The percentage fall in production is also shown for purposes of comparison.

Exports of Iron and Steel.
(Metric tons (000's).)

Country	1929	1930	1931	1930 as percen- tage of 1929	1931 as percen- tage of 1929	Production of	
						Raw steel in 1931 as percentage of 1929	Pig-iron in 1931 as percentage of 1929
United States of America	3,087	1,929	796	62	26	46	43
Germany	5,813	4,794	4,376	82	75	52	46
Belgium	4,603	3,664	3,465	80	75	76	80
France	4,121	4,013	3,604	97	87	80	79
United Kingdom	4,450	3,209	2,013	72	45	54	50
Total	22,074	17,609	14,254	80	65	52	51

During the period of the depression, exports have been best maintained from France ; in 1931, however, the smallest drop was recorded by Belgium and Germany. The Union of Soviet Socialist Republics took 2.7 per cent of German exports of rolling-mill products in 1930 and 25.7 per cent in 1931. The catastrophic fall in United States exports is especially noteworthy.

Mechanical Engineering.

Owing to the diversity of the products of the mechanical engineering industry, no uniform and comparable measure of the quantities of production is possible. Some indication of the variations in the activity of this industry¹ in certain countries may, however, be obtained from the data relating to it which enter into the general production indices of these countries and from certain specially compiled series which are also available. These indices are set forth in Table 4 of Appendix VI. They vary widely in scope and method of compilation and are therefore not comparable from one country to another.

In all the countries considered, there was a rapid expansion in the activity of the industry up to 1929 or 1930, reflecting the expansion of productive capacity and the "rationalisation" which were proceeding in the industrial countries during this period. In all, except the Union of Soviet Socialist Republics, there was a marked decline in output in 1931 and, with the exception of France, Sweden and the Soviet Union, also in 1930. The mechanical engineering industry of the United States of America has suffered more heavily

¹ Activity in one important branch of the industry — motor-car manufacture — and in shipbuilding and electrical engineering, which in part fall under the category of mechanical engineering is reviewed in separate sections below.

than that of any other country in 1930 and 1931. In the United States, the demand for machine tools and foundry equipment, which is regarded as "a significant indicator of the prospective activity contemplated by the machinery-manufacturing industry",¹ was, in the last quarter of 1931, only 19 and 15 per cent respectively of the average demand in 1929. The German industry, which prospered greatly from the intense investment activity both at home and abroad during the boom period, has also been very seriously hit. The domestic demand for machine tools and foundry and rolling-mill equipment was, in December 1931, only 15 per cent of the monthly average of the years 1925 to 1927. Foreign sales have been much better maintained as a result of heavy price cuts, but, towards the end of the year, exports diminished rapidly. The big drop in "orders received" by the German industry in the last quarter of 1931 is noteworthy. In 1931, the Soviet Union absorbed 28 per cent of German exports as against 13 per cent in the preceding year. France was the principal market for German machinery in 1930; her imports of machinery from Germany rose almost without interruption from 29.8 million marks in 1925 to 197.4 in 1930; in 1931, they still amounted to 142.7 millions. In 1930, French imports of machinery (including electrical machines) rose by weight 35 per cent, while exports fell more than 10 per cent; nevertheless, the 1930 average of the monthly indices of activity in the French industry remained at the high level of 1929 — 38 per cent above that of 1927. In the second half of 1930, however, a decline set in which became more rapid in 1931 with the fulfilment of orders placed in the previous year.

The Board of Trade index for the United Kingdom includes shipbuilding, which was affected especially severely in 1931. Conditions in other branches of the industry would thus appear to have been somewhat less unfavourable than the index suggests. Activity was, none the less, considerably diminished, especially in the heavy sections. The great drop in activity in the locomotive and rolling-stock section is shown by the second of the indices given in the table. With the revival of the textile trade consequent on the suspension of the gold standard, there was a certain increase in the demand for textile machinery from the domestic market towards the end of 1931: the agricultural machine trade has been chronically depressed. Exports of machinery from the United Kingdom in 1931 were less than 60 per cent (in weight) those in 1929: imports declined only 18 per cent over the same period.

Comprehensive production data for 1931 are not yet available for Sweden, where the engineering activity reached a high peak in 1930. Such indirect data as are available suggest however that, although activity declined in 1931, this decline was much smaller than in most of the other countries covered by the Table in the Appendix.

It is estimated² that in the various engineering industries of Italy (including shipbuilding, motor-car manufactures, electrical engineering) activity declined 15 per cent in 1931 and approximately as much in the preceding year.

Mercantile Shipbuilding.

Of all the great industries, shipbuilding has been the most directly hit by the tremendous decline in international trade since 1929. Owing to the fulfilment of orders previously placed, total tonnage launched, as shown in Table 5 of Appendix VI, was greater in 1930 than in 1929; but this progressive increase in tonnage only served to aggravate the disequilibrium between supply and demand. By 1930 freight rates, according to the *Statist's* world index, had dropped by some 30 per cent since 1926. The proportion of laid-up tonnage which at the middle of 1929 represented 5 per cent of total world tonnage had increased to 8 per cent a year later and amounted to almost 14 per cent in the middle of 1931 and to approximately 16 per cent at the end of March 1932.

¹ *Commerce Year-Book*, 1929, Volume 1, page 429.

² Confederazione Generale Fascista dell' *Industria Italiana*.

As a result of the heavy decline in new orders in 1930, the total tonnage launched in 1931 was 44 per cent below the peak figure of the preceding year. The extent of the recent contraction in shipbuilding activity is brought out in sharper relief by the figures for tonnage under construction reproduced below from Lloyd's Register Shipbuilding returns.¹ As in the Table on tonnage launched, the Union of Soviet Socialist Republics, for which recent figures are not available, is excluded.

Tonnage under Construction (000's).

At end of December :	At end of :
1925 2,070	March 1930 3,143
1926 1,879	June 1930 2,901
1927 3,031	September 1930 2,569
1928 2,520	December 1930 2,326
1929 2,990	March 1931 2,000
1930 2,326	June 1931 1,826
1931 1,404	September 1931 1,531
	December 1931 1,404
	March 1932 1,298

It will be noticed that the total tonnage under construction has shrunk without interruption since the end of March 1930 and two years later was only 41 per cent of the figure for that date. In view of the fact that the returns for recent quarters include a considerable proportion of tonnage — especially in the United Kingdom — on which work has been suspended or slowed down, the effective reduction is even greater than the above figures suggest.

An even more sensitive index is that of tonnage commenced, of which the quarterly figures for the last two years given below show a reduction of no less than 90 per cent over the period considered :

In quarter ending :	<i>Tonnage commenced (000's).</i>	In quarter ending :
March 31st, 1930 856.8		March 31st, 1931 241.9
June 30th, 1930 580.9		June 30th, 1931 234.4
September 30th, 1930 480.2		September 30th, 1931 173.4
December 31st, 1930 420.7		December 31st, 1931 225.5
		March 31st, 1932 80.3

The various shipbuilding countries have been affected in very different degrees. The United Kingdom, by far the greatest shipbuilding country, has suffered the most in the past two years. Tonnage launched in this country represented 54.5 per cent of the world total in 1929 and only 31.1 per cent of the drastically reduced total for 1931 ; tonnage under construction at the end of March 1932 was little more than one-fifth of the corresponding figure for 1930. Germany, which, in 1927, was the second shipbuilding country of the world, has since dropped to fifth place (according to tonnage under construction) and her tonnage in hand has fallen by four-fifths since the third quarter of that year. From March 1930 to March 1932, tonnage under construction fell between 70 and 80 per cent in Japan, the Netherlands and Denmark, in each of which the expansion in the boom years had been very pronounced. Italy is the only important country to record an almost uninterrupted expansion throughout the depression : in March 1932, there was

¹ End of year figures by countries are given for the period 1921 to 1931 in Table 110 of the *Statistical Year-Book of the League of Nations, 1931-32*, Geneva 1932.

more work in hand in Italian shipyards than at any time in 1931 and 26 per cent more than in March 1930. Activity in the French industry has also been well maintained; tonnage launched has increased every year since 1927, but tonnage under construction fell by almost one-third from the peak figure of March 1931 to March 1932. Of the other important shipbuilding countries, the United States of America and Sweden have recorded a relatively moderate contraction of activity since 1930. In the United States, indeed, tonnage under construction in March 1932 was greater than in March 1930, although it had fallen nearly 30 per cent since June 1931.

The shipbuilding industry has recently been undergoing rapid technological changes which have been accentuated by the depression. The most important of these is the substitution of oil for coal as the fuel for steamers and the rising proportion of motor-ships. Motor-ships accounted for 44 per cent of tonnage launched in 1929 and 57 per cent in 1931, as compared with 38.5 per cent in 1925. Of the total steam tonnage launched in 1931 approximately 79 per cent refer to ships fitted for burning oil fuel: the tonnage depending exclusively on coal for propulsion was less than 10 per cent of the world output in that year.

To meet the tremendous expansion in the international trade in petroleum, the number of tankers has risen greatly in recent years. The total tonnage of these vessels was 5,384,290 in July 1925, and 8,650,141 in July 1931. Of tonnage launched in the world in 1931, tankers represent over 40 per cent. Almost all of these vessels are motor-ships.

Motor-cars.

As shown in Table 6 (a) of Appendix VI, the European motor-car industry developed more rapidly from 1925 to 1929 and suffered far less in the two subsequent years than that of North America, which, however, still accounted for just over 80 per cent of the total world production in 1931 (as against almost 90 per cent in 1929). Production in the United States of America fell by considerably more than one-half and in Canada — whose industry was largely dependent on exports — by more than two-thirds from 1929 to 1931. For the whole of Europe the corresponding fall was only 18 per cent. One aspect of this differential movement — that connected with the existing distribution of motor-cars and the approach of a "saturation point" in North America — has already been touched upon.¹

In the North American countries, motor-car production is an industry on which the fortunes of several industries, especially the steel and copper industries, are largely dependent. The repercussions of this tremendous contraction in output in these countries have thus been especially widespread and severe.

The United Kingdom has, in the last two years, taken the place of France as the leading producer in Europe; the output of her industry has declined relatively little during the depression. Production in Italy reached its culmination in 1927 and in Germany output has declined steadily since 1928. Certain of the smaller producing countries have also suffered relatively little — in Czechoslovakia indeed the number of units produced in 1931 was greater than in 1929. Austria, however, like Germany, has suffered from the shortage of capital in the last three years and the serious contraction of domestic demand. Russia has rapidly built up a considerable industry in the same period, in accordance with the official policy of industrialisation. Her production is mainly of commercial vehicles.

The recent movements in four of the principal producing countries for which monthly series relating to motor-car production are available may be roughly illustrated by the following figures, which represent quarterly averages of the monthly indices for 1930 and

¹ For statistics of the number of motor vehicles in the various countries of the world at the end of 1930, see Table 114 of the *Statistical Year-Book of the League of Nations*, 1931-32.

1931, together with the average for the first quarter of 1932 expressed as percentages of the corresponding quarters of 1929.

Country	1930				1931				1932
	I-III	IV-VI	VII-IX	X-XII	I-III	IV-VI	VII-IX	X-XII	I-III
United States of America	69	67	51	69	46	50	39	43	25
Canada	49	67	61	51	31	38	29	35	18
Germany { Passenger cars	87	87	64	70	65	74	53	52	36
Commercial vehicles	81	45	56	70	61	47	50	38	29
France	96	95	100	99	86	81	85	80	67

In the United States, Canada and France, the indices showed little movement throughout 1930, although those of the two American countries were at a low level compared with 1929. Since the beginning of 1931 the downward movement in all the countries shown has been accentuated. In the United States and Canada, indeed, production rallied at the end of the year but in the beginning of 1932 it fell heavily. It would appear that, in the United States and Germany, production was reduced considerably below the level of retail sales towards the end of 1931 in order to clear stocks; in the case of Germany, however, the contraction in this period both of the domestic and of the European export markets, on which her industry has more and more depended, was very marked.

The statistics of exports from the chief producing countries which are also given in Appendix VI (Table 6 (b)) are of considerable interest. The drop in the exports of the United States and Canada has been far more severe than in European countries; this may be due partly to the general increase in tariffs and to exchange restrictions and partly to the fact that the American exports were largely directed to South America and Oceania, where purchases have almost ceased, and also to the United Kingdom, where the domestic industry has been rapidly increasing its share of the market.

Alone among the European producers, Germany recorded an increase in exports in 1931. This is of particular interest as illustrating the manner in which Germany is meeting the changed condition of the capital market. By means of this considerable percentage expansion in foreign sales, the German industry was able to some extent to compensate the deterioration of the home market.

The world production of commercial vehicles as a group has been far better maintained than that of passenger vehicles. In the United Kingdom, output in 1931 was considerably greater than in 1929.

This is largely explained by the successful competition of motor transport with the railways — a competition that has been so successful that, in Germany and certain other countries, measures have been taken to protect the State railways against road competition.

Motor-cycles and tractors are not included in Table 6 (a). The output of the latter in the United States — which accounts for the great bulk of world output — rose 36 per cent from 1925 to 1929 and fell something less than 12 per cent in 1930. Production in Soviet Russia — the only other large producer — has been developed very rapidly in the past three or four years.¹

¹ Output of tractors in the United States of America : 1925, 168,000 ; 1929, 229,000 ; 1930, 202,000. Output in the Union of Soviet Socialist Republics : 1928, 1,449 ; 1931, 40,700.

The drop in car production has, in most countries, meant only a drop in the rate of increase in the number of cars in use. In certain countries, however, in which incomes have been most seriously reduced, this has not been the case. Thus, in the United States, the number of registrations in 1931 was about 3 per cent less than in 1930 and, according to a private estimate,¹ the number of passenger cars in circulation in Germany dropped by 10 per cent and that of lorries by 3 per cent in the course of the year 1931.

Owing to the steady fall in car prices over the whole period considered and the rapid fall in the last two years, it is impossible to draw any certain conclusions regarding changes in the types of car produced from changes in the value of the output of the various national industries. It would appear, however, from returns from certain countries of registrations according to horse-power, that there has been a rather rapid movement away from the heavy passenger vehicles in favour of light and medium-size types. The size of the commercial vehicles produced has naturally depended largely on the nature of the communications and the tax systems of the various countries. In the United States and the United Kingdom there was a large increase in the proportion of light vehicles of 1½ to 2½ tons in the period 1925 to 1930 and a corresponding drop in the very light and the heavy categories. In general, there is reason to believe that the unit produced has been growing smaller over the period considered and that the figures shown in Table 6 (a) thus exaggerate the increase up to 1929, and understate the subsequent decline, in the quantum output of the world's industry.

*Building.*²

In Table 7 of Appendix VI are set out indices of building activity for a number of countries covering as far as possible the whole period 1925 to 1931. The statistical measurement of activity in this industry raises problems of great difficulty and the indices shown must be used with extreme caution as they are neither comparable from country to country nor, in many cases, are they based on aggregates of like units.³ Again, the indices for the majority of countries refer to a part only of building activity — the building of dwelling houses.⁴ This has one advantage indeed, for the conditions of demand and supply in the case of dwelling houses, industrial and commercial buildings and public buildings respectively, are quite different and the statistics relating to building activity in general tend to obscure the distinct tendencies that have been noticeable in these different classes of building. For most purposes, however, more comprehensive statistics are desirable; it may be useful therefore to supplement the indices by the figures of unemployment which are available for a few countries. Such figures relating to the middle and end of the years 1927 to 1931 are set out below.

¹ Reichsverband der Automobilindustrie. Quoted from *Wochenbericht des Instituts für Konjunkturforschung*, April 20th, 1932.

² In this section, only the construction of "buildings" is studied. The construction of roads and other public utilities has been of very great importance throughout the period under consideration. The continuation or launching of public-works schemes in 1930 and 1931 has of course mitigated the depression in certain of the building trades in a number of countries.

³ The composition of the various series is briefly indicated in the notes. It will be observed that the series relate in different cases to the value of contracts awarded, to the value of buildings for which permits have been granted, to the numbers of "dwellings" (aggregate of apartments or private houses) completed or for which permits have been granted, to the amount of floor-space or the ground-area of buildings completed, etc. Again, indices based on uncorrected value figures are obviously misleading, especially for 1930 and 1931; and those relating to the number of dwellings ignore the rapid changes that have been taking place in the average size of houses and apartments built.

⁴ Wherever possible, separate series for other branches of building are also given.

Unemployment in the Building Industry.

(Percentage of trade unionists unemployed.)

Country		1927	1928	1929	1930	1931
Canada	June	8.0	3.9	7.5	26.2	38.6
	December	19.1	15.5	25.6	44.5	58.1
Germany ¹	June	5.3	8.0	10.4	38.0	56.6
	December	49.0	50.6	52.8	65.4	85.4
Belgium	June	1.8	0.4	0.1	2.7	11.5
	December	23.7	15.0	5.5	19.5	28.3
Denmark ²	June	9.2	2.5	0.2	0.5	0.3
	December	78.4	52.9	33.0	42.2	52.7
Netherlands	June	8.5	7.0	2.1	6.2	9.2
	December	40.0	27.2	24.5	30.2	39.1
United Kingdom ¹	June	6.9	10.0	8.5	12.7	18.1
	December	16.0	15.2	16.9	22.7	28.6
Switzerland ³	June	1.8	1.2	0.6	1.1	1.5
	December	15.8	14.4	13.0	15.9	22.9
Australia	June	6.7	12.6	8.8	23.3	32.6
	December	10.0	8.7	14.3	27.9	36.0

¹ Wholly unemployed only.

² Masons.

³ Including wood industry.

In almost every country, building is an industry on which largely depend the fortunes of many other industries — such as timber, bricks, cement, quarries, tiles, iron and steel, glass, porcelain, electrical equipment, furniture. It constitutes also in general one of the most important occupational groups: in Germany, for example, in 1925, the industry accounted directly for almost 14 per cent of the total numbers of workers in industry and handcraft. In so far as dwelling-house building is dependent on unaided private enterprise, it is highly sensitive to changes in domestic interest rates on the one hand and domestic incomes on the other. In recent years, however, public building and public subsidies for dwelling-house construction which are not immediately or directly affected by these factors, have been of great importance in most countries. Factory building and — though to a somewhat less extent — commercial building activity generally follows rather closely the trend of industrial activity.

Building expanded rapidly during the period 1925 to 1929 in almost all the countries shown in the appendix table: in Canada, South Africa, Sweden, Finland, New Zealand there was an uninterrupted increase in building activity — a progressive increase in the number of buildings in existence — from 1925 or 1926 onwards. This development coincided with, and, indeed, was an aspect of, the general industrial expansion and the rise in the standards of living. It was in almost all cases far more rapid than the increase in population over this period. The abundance of capital in the greater part of the period considered in the characteristically borrowing countries, which had previously suffered from shortage of funds, enabled the large unsatisfied demand for building, especially for house-building to be met. In certain European countries this deferred demand was directly connected with post-war reconstruction: in Germany, even in 1924, the total value of new buildings was smaller

than the estimated depreciation of those existing. In 1927, however, the value of new buildings was two and a-half times as great as this estimated depreciation.

Unlike the "great majority" of countries shown, the United States records a downward tendency in the construction of residential buildings over the entire period and only a very moderate expansion in commercial buildings in the years of industrial prosperity. This is partly explained by the fact that both classes of building had been very active in the years 1922 to 1925. But the sharp drop in residential building in the United States of America in 1929, illustrates a phenomenon which was characteristic of pre-war economic history — the diversion of capital in the later stages of boom periods from building construction to other forms of investment offering a higher yield. Factory building on the other hand, expanded rapidly in the United States, in 1928 and 1929 : the difference in movements of factory and commercial building which are shown below are significant :

U.S.A. : Buildings Completed (Floor Space) (1925 to 1929 = 100).

	1925	1926	1927	1928	1929	1930
Factory building . .	81.7	92.5	83.3	113.5	129.0	58.7
Commercial building .	103.3	98.3	91.5	102.7	104.1	63.2

With the downward turn of the business cycle there was a heavy drop in building activity in the United States and Canada and in the majority of the countries shown in the tables — principally those which were severely hit by the fall in the export prices of their main products or by rapidly increased interest rates due to the shortage of foreign loans — the Argentine, Chile, Australia, New Zealand, Germany, Poland. The index for Finland, in which there was a severe credit crisis in the latter half of 1928 and the beginning of 1929 also dropped heavily in 1929 and in 1930 and the Italian index fell 20 per cent in the latter year.

In all these countries, the building depression was accentuated in the following year. In December 1931, less than 16 per cent of the total number of building operatives were wholly employed in Germany. As may be seen from the table given above, conditions became rapidly worse in Germany after the outbreak of the credit crisis¹ in the summer of that year. The percentage of unemployed in Poland was comparable to that in Germany. In the countries shown which were favourably placed in respect of prices or interest rates — South Africa, Belgium, France, Denmark, Norway, the Netherlands, the United Kingdom, Sweden and Switzerland — building either expanded or recorded only a slight contraction in 1930 and 1931. The indices of certain of these countries relating to dwellings — Denmark, Norway, Sweden and Switzerland — were indeed very much higher in 1931 than in 1929. In Belgium and the Netherlands, however, employment dwindled considerably in the course of the year and it appears certain that, in several of the other countries of this group, building activity was falling sharply by the end of the year.

As might be expected, industrial construction has been more affected than house building since the outbreak of the depression. House building has been generally so well maintained not only because the demand for house-room is a primary consumers' demand, but also because of the public building schemes in many countries, to which reference has been made above. In 1931, however, with the serious financial position of public authorities, both local and central, in almost all countries, and especially those which normally depend on foreign borrowing, public building programmes were generally cut. In the same year, the financial position of industrial enterprises, especially in the less favoured countries, became far more serious and new construction and extensions were rare.

In certain countries not shown in the tables, such as Austria, Yugoslavia and Lithuania (Kaunas and Memel), building was well maintained in 1930 and 1931. In Portugal, the

¹ The seasonal movement in Germany is, however, very pronounced, as may be seen from the table given above.

number of authorisations dropped 23 per cent in the latter year. Building in South China in 1930 and 1931 would appear to have been very active. The number of building permits issued in Hong-Kong in 1931 was almost double the 1929 figures.

Throughout the period 1925 to 1931 the average size of dwellings constructed would appear in general to have diminished greatly. Out of every hundred new dwellings in Germany, one to three-roomed dwellings accounted for 34.2 per cent in 1927, 35.6 per cent in 1928, 43 per cent in 1929, 49.4 per cent in 1930 and 57 per cent in 1931. Evidence of the same tendency is to be found in the statistics of other countries. The number of completed new dwellings in Sweden increased by 76 per cent from 1925 to 1931: the number of new rooms by only 49 per cent. In Finland the increases in the number of dwellings and rooms between 1925 and 1929 were 81 and 57 per cent respectively.

Electrical Engineering.

Series relating to the activity of this branch of engineering in a few countries are shown in Table 8 (a) of Appendix VI. Unfortunately, no comprehensive series are available for three of the important producing countries — Germany, France and Switzerland. The indices shown in Table 4 (Mechanical Engineering) for Germany and France cover also the electrical branch.

From the information available, however, it would appear that activity in electrical engineering has in general been relatively well maintained. The demand for household electrical goods — telephones, wireless sets, electric lamps, radiators, etc. — has fallen off much less than that for the heavy investment goods and indeed in several cases (for example, production of wireless apparatus in Italy and that of domestic telephone equipment even in countries in which the telephone system was already highly developed) continued to increase in 1930 and 1931.

The electrification of industry and railroads and the execution of big hydro-electric schemes, involving large orders for technical equipment, have proceeded in certain countries such as France, the United Kingdom, Sweden and Switzerland throughout the depression, though in some cases more slowly than before. In Germany, on the other hand, the tremendous electrification activity of the years 1925 to 1929 has been succeeded by an almost complete cessation of demand for heavy equipment: the high-power section of the industry was in 1931 working almost exclusively for foreign orders. The Italian heavy industry was also most seriously affected through the contraction of the demand from industrialists and the power system. The French industry was supported in both 1930 and 1931 by loans to the French colonies for electrification purposes.

Statistics of the value of exports of electrical apparatus from the seven principal producing countries are also shown in Appendix VI, Table 8 (b). On account of the drop in prices — which, however, has been less in the case of certain important classes of electrical goods than in that of other finished products entering more largely into international trade — these figures exaggerate the decline in export quantities in the last two years considered. The export figures do not in all cases show movements similar to the indices of activity given in Table 8 (a). In certain countries, exports declined or failed to rise in the period preceding 1929, largely as a result of increased domestic demand for investment purposes. *Vice versa*, in other countries the industry succeeded in disposing of a larger proportion of its products abroad when its domestic demand fell off.

Electrical Energy.

Statistics relating to the generation of electrical current are not very complete. In many countries none are published and even the figures that are available (see Table 9 of Appendix VI) often exclude in whole or in part the power generated by industrial,

transport or other undertakings for their own consumption. Thus, it is difficult to estimate the total output of electricity in the world. According to one authority,¹ this total increased from 186,595 million kwh: in 1925 to 255,622 million in 1928. From the available figures, the world output may be estimated to have reached roughly 296,000 million kwh. by 1930 and the total increase between 1925 and that year may thus be safely estimated at almost 60 per cent. This extraordinary increase reflects on the one hand, an intense investment activity in this field of enterprise and on the other a rapid change in the technique of transport and industrial production and in certain of the amenities of life. The greater part of this increase took place in the period up to 1929 inclusive; but, even in 1930, world output would appear to have risen between 2 and 3 per cent. The few figures available for 1931 show little or no drop in production; but in view of the fact that the statistics largely ignore the generation of current by industrial undertakings for their own use, they, probably fail to reflect accurately the movement of total production.

The output of electrical current in the United States and Canada amounts to almost one-half and the output in Europe to something more than two-fifths of the world total. In Europe, the principal producers are — in order of importance — Germany, the United Kingdom, France, Italy and Norway. The output of Japan is not far short of that of France.

An indication of the development in the principal countries since 1925 is given in Table 9 of Appendix VI. The increase in recent years has been generally greater in Europe and Japan than in the United States of America and has been more rapid in Soviet Russia than in any other country.

The generation of electrical power has become more and more concentrated in the hands of public stations. Generation by undertakings for their own consumption has lost in importance as the technique of transmitting current over long distances has improved. Production of this kind is largely confined to mining and metallurgical industries and electric railway systems.

The proportion of current generated in thermo-electric and hydro-electric stations varies widely from country to country. Information available for the principal countries shows that the greater part of the world's supply of electricity is produced by fuels, although water power is gradually increasing its share in the world supply: in the majority of the countries in which output has increased most rapidly in recent years, fuel resources are small or non-existent and water-power is mainly used. In the most recent years for which information is available, the percentage of current generated by fuels was 99 per cent in the United Kingdom, 88 per cent in Germany, 67 per cent in the United States, and 55 per cent in France. On the other hand, practically only water power is used in Norway, Sweden, Switzerland and Canada, while the proportion of current generated in hydro-electric stations was 97 per cent in Italy, 89 per cent in Japan, and 72 per cent in Finland.

Textiles.

Reference has been made above to the relatively slow expansion of the textile group of raw materials in the period 1925 to 1929 and its very moderate contraction during the subsequent depression. In view of the fact, however, that the production of raw cotton, jute, flax, hemp and other textiles of an agricultural origin depends in the first instance on atmospheric conditions and cannot easily or rapidly be adjusted to changes in demand, the composite index for the world output of crude textiles fails to reflect with any accuracy the year to year changes in the activity of the textile manufacturing industry. This may be seen from the following comparison between that index and an index for industrial

¹ Institut für Konjunkturforschung, *Vierteljahrshefte zur Konjunkturforschung*, Sonderheft 19 (Berlin 1930).

textile production in the United Kingdom, the United States of America, France, Germany, Japan and India which has recently been published by the German Institut für Konjunkturforschung :¹

(Basis : 1925 to 1929 = 100.)

	1925	1926	1927	1928	1929	1930	1931
Textile production :							
Raw materials ²	97	101	94	103	106	103	104
Industrial products	96	96	105	100	104	91	91 ³

Between 1925 and 1929, the industrial index rose roughly in the same proportion as that for raw materials. Since 1929, however, it has dropped considerably below the latter : this may be due in part to the exclusion from the industrial index of the textile industries of the numerous smaller industrial countries, whose output has in general been relatively well maintained, but the main explanation is to be found in the accumulation of stocks, to which reference has been made above.

The textile industry is of great importance in almost all countries of the world which are to any degree industrialised. In many, such as China, India and Brazil where industry is relatively little developed, it is by far the greatest manufacturing industry, and in the United Kingdom, the United States of America and Germany it employs from 10 to 13 per cent of the industrial population. One of the most striking phenomena of the post-war period has, however, been the change in the geographical distribution of the industry and in its relative prosperity in different groups of countries. The older textile industries, and particularly the cotton industry, of almost all the great European producers have contracted since before the war and, in certain cases, have been chronically depressed for several years. In the less important producing countries of Europe and in every other continent, the textile industries have expanded rapidly, in most cases behind heavy tariffs, to supply the needs of the local markets. The United Kingdom, the world's greatest exporter of cotton and wool manufactures has suffered most ; it has not only lost markets through local competition, but it has been undersold in neutral markets. The industry of its principal competitor on the Asiatic market, Japan, has expanded dramatically since before the war. In recent years, however, China and India have developed their cotton industries still more rapidly than Japan.

Table 10 in Appendix VI sets out composite indices of textile production in thirteen countries. In several important producing countries — such as Italy and China — no composite index is published, but the development can be followed from the indices relating to the individual industries which are given in subsequent tables of the Appendix.

Of the countries shown in Table 10, the United Kingdom, Germany and Czechoslovakia record a decline in textile activity since 1927 and France, Belgium, Poland and the United Kingdom (Board of Trade index) since the following year. In the United States of America, Japan and the Netherlands the peak was reached in 1929, while, in the Scandinavian countries and Chile, production increased until 1930. By the end of 1931, the indices (basis 1925 to 1929) of France, Poland and Chile had fallen the most.

In several countries — the United Kingdom, Japan, Germany, and particularly in Hungary and Austria (cotton goods) — the textile industry showed definite signs of recovery in the course of 1931. In India and, it would appear, in China and several small producing countries in different parts of the world, cotton manufacture has expanded throughout the depression. This recovery was closely connected in the United Kingdom with the depreciation of sterling, in Hungary, Austria and Germany with a "flight into goods" — as a consequence of the banking crisis and the accompanying loss of confidence, savings

¹ *Vierteljahrshefte für Konjunkturforschung*, Sonderheft 24. Berlin 1931.

² In contrast to the textile raw material index given on page 56 above, the present index includes the Union of Soviet Socialist Republics, the world's most important producer of flax and hemp.

³ Six months.

were withdrawn on a large scale ; and in view of the restrictions on the purchase of gold and foreign exchanges, these savings were largely used for the purchase of consumers' goods.

The available statistics unfortunately do not show the changes in the output of different qualities of goods, or of the various classes of finished products. It is certain, however, that there has been a strong trend in favour, not only of rayon and silk fabrics, but also of the finer qualities of cotton and wool and that the world output of hosiery and knitting goods expanded greatly before the depression.

Cotton. — In Table 11 (a) is given the consumption of raw cotton over the period 1924-25 to 1930-31 (August 1st to July 31st) in all countries from which information is obtained by the Federation of Master Cotton Spinners' Associations.¹

The figures for total production and total consumption in the period under review are as follows :

	Metric tons (000's.)						
	1925 1925-26	1926 1926-27	1927 1927-28	1928 1928-29	1929 1929-30	1930 1930-31	1931
Cotton production	6,050	6,150	5,200	5,670	5,700	5,600	5,870
Cotton-mill consumption	5,352	5,716	5,594	5,646	5,434	4,824	...

After allowance has been made for such discrepancies as may arise from overlapping dates and from slight differences in the rates used for converting the bales into metric tons², the agreement is fairly close in general between the two series of figures up to 1928-29. The raw cotton crops are, of course, subject to considerable year-to-year fluctuations, but, from 1927 onwards, have been definitely lower than in 1925 and 1926. The cotton mill consumption was also largest in the economic year 1926-27. In the two subsequent economic years, consumption was slightly lower, but production fell much more and part of the surplus crops of the preceding years was consumed. Since the middle of 1929, however, consumption has fallen considerably while production was maintained or indeed — in 1931 — increased. Mill consumption in the half-year ending January 31st, 1932, was, in fact, greater than in either of the two previous half-year periods, but it was still some 14 per cent below the corresponding figure of two years earlier.

This discrepancy between production and consumption is reflected in a rapid growth in world stocks. According to the Liverpool Cotton Association, stocks held in England, in the continent of Europe, in the United States of America, Alexandria, Bombay and the Far East rose from 5,635 bales at the end of 1925 to 7,234 at the end of 1929 and 10,709 two years later — approximately 40 per cent of the total production of the year 1931-32.

The shares of America and Europe in total world consumption have fallen considerably over the period under review, and those of Asia and the Union of Soviet Socialist Republics have risen. In the last two years indeed, the consumption of Asia has, for the first time, been greater than that of North America, although, in 1930-31, it was still below that of Europe. India, China and the group " Various countries " given in the table (including many of the small producing countries which have recently expanded their textile output) alone recorded an increase in that year. The United Kingdom has lost most ground since 1924-25 ; in 1930-31 indeed, her industrial demand was less than that, not only of the United States of America (as during the whole period considered), but also of the three great Asiatic producers. In 1931, her total exports (by weight) fell by 28 per cent and her exports to the Asiatic markets by 40 per cent. In the half-year ending January 31st, 1932, however, her cotton consumption was 22 per cent greater than in the preceding six months.

¹ The original statistics are expressed in numbers of bales the average weight of which, however, differs widely for the different kinds of cotton. They have therefore been converted into metric tons, according to the average rates used by the Cotton Trade Statistical Bureau at Manchester. The scope of the statistics is not quite worldwide and the continental totals cover those countries for which information is available and not necessarily the whole area of the continents concerned.

² These differences may be accounted for by the fact that the bales, when reaching the factories, are, as a rule, somewhat lighter than at the original places of production.

During the whole period under review, American cotton lost ground to "Sundry" crops, and in the last two years, to East Indian cotton, especially on the European market.

The indices of activity in cotton spinning and weaving shown in Tables 11 (b) and 11 (c) of Appendix VI cover almost all important producing countries. The extraordinary increase in both sections of the industry in Austria and Hungary in the last quarter of 1931 largely reflects the "flight into goods" which took place in these countries as a result of the financial crisis of the summer of 1931. A similar although less pronounced movement is to be observed in Germany. The German and Austrian indices for the first quarter of 1932 were 16 and 24 per cent respectively above those for the corresponding period of the previous year. There was an improvement in the British industry in the last quarter of 1931 which was almost maintained in the following quarter. This recovery was largely due to the increase in exports occasioned by the suspension of the gold standard. For special reasons, British sales on the Chinese market also rose considerably, and those of Japan fell heavily. In spite of a decline in cotton exports from September onwards, however, the Japanese production indices continued their steady rise in the last quarter of the year and yarn production was still expanding in January and February 1932. The Indian industry again greatly expanded its output in 1931. In France and Italy the annual indices dropped considerably; Italian yarn production improved towards the end of the year and again slightly in the first quarter of 1932.

The consumption of cotton in Canada rose rapidly from September 1931: the index for the first quarter of 1932 was more than twice as high as that for the corresponding period of the previous year. The American index remained practically stationary in the early months of 1932.

Large as is the trade in cotton goods, most production is nevertheless for domestic purposes. One expert body¹ estimated in 1929 that less than 10 per cent of the cotton yarn and less than 20 per cent of the cotton tissues produced entered into international trade; the corresponding percentages for the present day would be considerably lower. Exports are, however, vital to certain national industries, especially that of the United Kingdom which, in 1924, exported over 80 per cent of her production of cotton tissues. The total exports of yarn have declined substantially in recent years, and the value of the exports of piece-goods have fallen steadily throughout the whole period under review, partly as a result of the decline in prices and partly owing to a quantitative reduction in British exports, which constitute a very large proportion of the world total. Certain features of the trade in cotton goods have been discussed in a companion volume² and need not be further referred to here.

Wool. — Activity in the woollen industry of certain important producing countries — in particular the United Kingdom and Japan — was considerably greater in 1931 than in the preceding year. The wool consumption index of the London and Cambridge Economic Service shown in Table 12 of Appendix VI indeed points to an almost uninterrupted increase since 1925 and the index figure for 1931 was no less than 25 per cent above the average for the quinquennium 1925 to 1929. The Federal Reserve Board index also records a marked recovery in the activity of the woollen industry of the United States in the second and third quarters of 1931, but in the last quarter that index again dropped heavily and the average for the whole year was considerably below that of 1925 to 1929. The increase of activity in 1931, where it occurred, was largely due to the heavy fall in the price of raw wool towards the beginning of the year which accompanied the depreciation of the Australian currency and the subsequent drop in the prices of woollen yarns and tissues. In France, Italy, Belgium and Canada, however, in which output has been declining since 1928, the depression in the industry deepened in 1931 — towards the end of the year, the decline was most marked in Canada, where there had been a recovery in the beginning

¹ The Cotton Trade Statistical Bureau, Manchester.

² League of Nations: *Review of World Trade*, 1930.

of the year. In the Union of Soviet Socialist Republics and a number of smaller industrial countries — particularly Chile, Australia, the Scandinavian countries and Finland — the advance in certain branches of the industry, at least during the boom period, was very considerable, and activity was well maintained in 1930. Figures for 1931 are not yet available for most of these countries.

The German index for weaving fell 25 per cent from 1927 to 1930 and, from the trade figures and the employment returns, it would appear that the activity of the industry was further curtailed in 1931. The spinning section on the other hand appears to have maintained the improvement recorded in 1930. The extraordinary increase in yarn production in Chile illustrates the process of "localisation" of the principal textile industries to which attention has been drawn above.

Natural Silk. — In several countries for which indices are shown in Table 13 of Appendix VI, the activity of the silk industry was considerably greater in 1931 than in the previous year. There was an increase in the mill consumption of silk in the United States of America, the world's greatest producer of silk tissues, and in the United Kingdom; but in Italy, France and Switzerland conditions became worse. In the latter two countries, indeed, the silk industries had nearly come to a standstill by the end of the year, in spite of the maintenance of exports at approximately their 1930 level. The Japanese industry increased its output quarter by quarter in 1931, in spite of the severe contraction of its trade with China. The rapid and continued development of the natural and artificial silk industry in certain small producing countries for which figures are available — Sweden, Poland, Portugal, Hungary — is of interest not only as illustrating the process of decentralisation in this as in other textile industries, to which reference has been made above; it also points to the fact — which is supported by trade returns — that the use of these textiles is expanding and in certain countries this expansion has been at the expense of cotton and wool.

Even in countries in which output was maintained or increased, however, 1930 and 1931 were bad years for the industry on account of the great fall in the prices of silk yarns and fabrics to which reference is made in Chapter III.

Artificial Silk. — As shown in Table 14 of Appendix VI, the aggregate output of artificial silk increased without interruption from 1925 to 1929, and, after a small decline in 1930, again expanded considerably in 1931. The increase in output over the entire period was more than 250 per cent. Artificial-silk prices which, according to Italian quotations, dropped by 60 per cent between 1925 and 1929,¹ in conjunction with the remarkable technical progress and expansion of output during that period, have subsequently declined but little. The corresponding price fall between the end of 1929 and the beginning of 1932 was only 7 per cent — far less than in the case of any other textile or almost any other unfinished product. Further reference to this point is made in the following chapter.

In 1930, there had been a contraction in the output of all the principal producing countries except Germany, France and Japan. All countries except France, Belgium, Austria and Spain shared in the rise in the following year. The 1931 figures for the United States of America, the world's greatest producer, were 18 per cent above those for 1929; the corresponding increase in Japan was 67 per cent. In many European countries, however — the United Kingdom, France, the Netherlands, Belgium, Switzerland, Hungary and Spain — output in 1931 was below the 1929 level. Of the small producers, Sweden shows a continuous expansion since 1926: Austrian production ceased altogether in 1931.

Exports of artificial-silk yarn dropped in 1931 in almost all important European producing countries, except Italy and Switzerland. The increased output in the other European countries would appear to have been met only in part by increased consumption

¹ Annual averages published in *Vierteljahrshefte zur Statistik des Deutschen Reichs*, Volume 3, 1930.

and to have led to a serious growth of stocks in the hands of both manufacturers and merchants. In spite of great efforts on the part of European and American exporters, the rapidly growing Asiatic market for artificial-silk tissues has been almost completely captured by the Japanese industry.

Linen, Hemp, Jute, etc. — The development of these industries in the whole period under consideration has not been analogous, as the indices in Table 15 of Appendix VI show. Linen, hemp and jute have been subject to dissimilar market conditions and the variations in the activity of the industries from country to country have been very marked. One generalisation is, however, possible: these industries were all affected more seriously in 1930 and 1931 than the other textile industries. None of the group, except linen, depends mainly on consumers' demand like cotton, wool and silk; and a considerable part of the output of linen tissues is taken, not by private individuals, but by hotels, shipping companies, etc., the demand from which has contracted greatly. Again, the consumers' demand for linen sheets, towels and cloths is more elastic — is more readily postponed or cut down — than that for articles of clothing.

The trends shown by the indices of raw material production in Appendix II and the indices of activity in the industries concerned differ widely. Thus, the world output of flax increased over 50 per cent from 1927 to 1931, but the activity of the linen industry has tended to decline during the greater part of this period in all the important linen-producing countries for which information is available, except the Union of Soviet Socialist Republics, which has greatly increased its output in recent years. In Germany, there has indeed been a decline in flax-spinning and linen-weaving every year since 1927, but production appears to have become more stabilised in the course of 1931. The British industry,¹ which has also been depressed for many years, recovered towards the end of 1931 with the suspension of the gold standard. The fall in flax and linen prices in the last few years has been tremendous. Prices of flax (London: Riga "ZK") dropped almost 70 per cent from December 1928 to December 1931.

The decline in hemp prices has been somewhat less (about 58 per cent from December 1928 to December 1931), but the depression in the hemp industry has been much more severe. The drop in hemp prices has indeed occurred in spite of a tendency for the output of raw hemp to fall over the whole period considered — the drop in production from 1930 to 1931 is estimated at 10 per cent. Imports of raw hemp into the United States have declined year by year since 1925; those of manila, on the other hand, were well maintained up to 1929. A chronic depression in the important Italian industry was accentuated in 1930 and 1931; the German index for hemp, as for most other textiles, has fallen since 1927.

The output of jute tissues expanded considerably in India, the world's greatest producer, and in most of the other important jute manufacturing countries² in the earlier years under review; the separate indices for jute given in the table are all higher in 1929 than in 1925.³ With the industrial depression, however, the demand for sacks — an important element in the total market for jute tissues — fell heavily, with serious consequences for the industry in general. Some recovery is noticeable in the British and United States industries in 1931, but in India, Italy and, it would appear, in most other producing countries, the jute mills were very seriously depressed in that year.

¹ The index for the United Kingdom covers linen, hemp, and jute. British exports of linen tissues rose about 6 per cent in 1931, but were still more than 20 per cent below exports in 1925.

² The export figures for India are stated to represent fairly closely the actual changes in total production in that country. Import figures of raw jute, hemp and flax are used as a rough measure of changes in the activity of the coarse fibre industries in the United States of America. While United States imports of raw jute dropped considerably from 1927 to 1930, imports of jute manufactures from India increased steadily.

³ In the United Kingdom, however, jute production was much lower in 1930 than in 1924. According to the census figures, output of jute yarn fell by 22 per cent, of piece goods by 20 per cent and of carpets and rugs by almost 50 per cent.

Rubber Products.

The figures for the consumption of crude rubber (Table 16 (a) of Appendix VI) indicate roughly the relative importance of the rubber industries of the countries shown. As the composition of the rubber industries, however, varies from country to country, the relative values of production diverge considerably from the relative consumption of the raw material. The tyre and tube industries naturally consume more crude rubber per unit of value produced than the industries producing rubber shoes, fancy articles or medical apparatus. For example, in 1929, tyres and inner tubes accounted for 87 per cent of the crude rubber consumed in the United States of America, but only 69 per cent of the gross value of rubber products. For the same reason, the changes in crude rubber consumption do not always reflect accurately the variations in the activity of the national industries: the consumption figures have therefore been supplemented wherever possible by indices based on actual production of rubber goods or indirect measures of activity (Table 16 (b)).

The fortunes of the rubber industry, in recent years have been closely bound up with those of the motor-car industry. Tyres and tubes of all kinds represented 67 per cent of the gross value of rubber products in the United Kingdom in 1930 (as against 50 per cent in 1924): the corresponding figure for the United States in 1929 is given above. Nevertheless, since 1929, the activity of the rubber industry has been much less curtailed than the production of cars for two main reasons; first, the replacement demand for tyres and tubes is highly inelastic and, as was shown in the section dealing with motor-car production, the number of cars in use in the world has not fallen; secondly, rubber boots and shoes, the group of rubber products next in importance to tyres and tubes, as well as water-proofed piece-goods, surgical apparatus, etc., are consumers' goods which have been affected little or not at all by the depression.

The world consumption of crude rubber remained almost stationary in the period 1925 to 1927, rose very rapidly in 1928 and 1929 and dropped substantially in 1930 and 1931. The consumption of the United States, which accounts for between 50 and 60 per cent of the world figure, rose much less rapidly up to 1929 and has subsequently fallen considerably more than the majority of countries shown. Indeed, while from 1929 to 1931 the figure for the United States dropped 25 per cent, the total consumption in the rest of the world rose by 1 per cent, owing mainly to the rising output of the rubber industries in the United Kingdom, Japan and Soviet Russia. The consumption of rubber in France and Belgium has also been well maintained, and from the indices in Table 16 (b), and the rapidly rising figures for the consumption of "Other countries" it would appear that the industries — largely manufactures of rubber boots and shoes — of many of the small producing countries continued to expand.

It may be mentioned that the drop from 1929 to 1931 in the number of tyres and tubes exported from the United States (39 per cent) was considerably greater than that in the output of these goods in the United States (29 per cent) or in the corresponding exports from the United Kingdom (23 per cent). This heavy fall in the foreign sales of the United States was partly due to the establishment of branch factories of American firms in other countries — notably in the Argentine which was by far the biggest market for United States tyres and tubes in 1930, and whose imports of these goods from the United States dropped in number by 78 per cent in 1931.

Leather and Boot and Shoe Industries.

Although the world demand for boots and shoes, the principal product of the leather industries, would seem to have varied little more than that for the staple articles of clothing in the period under consideration, the fortunes of the various national industries have been very different, as the indices given in Table 17 of Appendix VI clearly show. The

activity of the leather-manufacturing industries¹ of the United Kingdom, Germany and Australia has tended to decline since 1927 and the indices for Canada, France and Hungary have been falling since the following year. According to the census results, the British output of leather, boots, shoes and slippers was fractionally less in 1930 than in 1924. On the other hand, over the greater part of the period considered, the indices of the United States of America, South Africa, New Zealand, Denmark, the Netherlands and Czechoslovakia rose considerably.

These differences are connected with rapid changes in the movements of international trade in leather products. Exports of boots and shoes from Czechoslovakia — the world's greatest exporter of these goods — expanded rapidly up to 1929 and after a setback in 1930 rose again by almost 50 per cent in 1931. Exports from the United States and the United Kingdom increased up to 1928, but dropped in the two subsequent years; in 1931 those of the United States dropped only 8 per cent, but exports from the United Kingdom — the greatest exporter of leather — were again drastically reduced by 30 per cent. Germany expanded her trade in leather up to 1929, since when it has fallen very heavily, but her exports of boots and shoes, which reached their peak in 1930, were still relatively high in 1931.

The indices of the production of leather and of boots and shoes for several countries — the United Kingdom, Sweden, Soviet Russia and a number of small producers — rose in 1930. The rise in the United Kingdom and Sweden followed three years of decline. Apart from Russia, only the United States, Canada and Czechoslovakia, of the countries for which indices are available, expanded their production of footwear in 1931. The index for the last-mentioned country in the second half of 1931 was 21 per cent above the average for 1925 to 1929. The indices for the United States and Canada were well below the average.

It would appear from other sources that conditions in Denmark and certain other small producing countries were also favourable in 1931 and the decline in the Swedish output of footwear was very small. In Italy and the Netherlands, on the other hand, the industry is reported to have suffered heavily. The trade figures for the Netherlands illustrate the effects of relative price movements, etc., to which reference has been made in the early part of this chapter: her imports of leather footwear rose in quantity by 53 per cent in 1931 and her exports fell by 27 per cent.

As might be expected the output of boots and shoes has been much better maintained than that of leather manufactures in general, which include industrial products, such as belting, and various consumers' goods of a durable character. The movements of these two groups of indices for the United States, Germany, Poland, Sweden and South Africa diverge widely.

In 1931, there was a strong shift in the world demand from the more expensive to the cheaper qualities of leather for soles and uppers. There is thus reason to believe that while the physical output of footwear was being relatively well maintained, the average quality of boots and shoes produced was deteriorating.

Timber Industry.

Indices of activity in the timber industry in the principal producing countries are set forth in Table 18 (a) of Appendix VI. From this table it would appear that up to 1929, the timber industry prospered with the boom in industrial investments and with the prosperity of house-building and the furniture trades in most countries which accompanied the rise in the standard of living. Prior to the period covered by the table, the timber industry had benefited from the reconstruction of the European areas devastated during

¹The indices relating to the production of leather or leather manufactures in general are considered in this connection rather than those relating to the output of boots and shoes.

the war and, as a result, timber prices in 1925 were, as compared with 1913, at a higher level than the prices of most other raw materials and semi-manufactures. In the five following years, as a result of the heavy demand for timber, timber prices were well maintained.

The favourable situation in regard to prices naturally brought into operation certain forces which have ultimately aggravated the depression of the timber industry — for constructional purposes timber has been more and more replaced by cement, iron and steel, plaster and bricks, and the use of plywood instead of planks for furniture and other purposes has been extended.

In 1930, the activity of the industry was in general relatively well maintained, owing largely to the continued house-building activity in many countries. In the following year, however, the decline was much more pronounced, as a result of the intensification of the general economic and financial depression, especially in the latter part of the year.¹

The various producing countries have been affected in very different degrees since 1929. Table 18 (a) shows that the activity of the North American industry in 1931 had fallen to less than half the 1925-1929 average — a far greater decline than in any European country. Only in Soviet Russia was the index for 1931 above the 1925-1929 average — in 1930, indeed, it stood at more than two and a-half times that average.

The change in the importance of the various producing countries on the world market may be seen from Table 18 (b) (exports of sawn softwoods). In 1925, the Union of Soviet Socialist Republics accounted for 6.6 per cent of the aggregate exports of the main producing countries; her share dropped in 1926, but increased steadily in the following years and, in 1931, amounted to nearly one-fifth of the world total. The rapid and persistent increase in Russian exports has, since 1927, unfavourably affected the timber industry of some of the northern countries and Finland in particular. Canada has lost most heavily of all countries, except Czechoslovakia, whose exports however are of only moderate importance. In 1925, Canada was the greatest exporter of sawn wood, with a share of 17.4 per cent in the aggregate shown in the table; her share fell to 9 per cent of the much reduced total of 1931. The decline in the official index of Canada based on lumber exports is somewhat less pronounced.

The index of the Federal Reserve Board fell from 107 in 1925 to 43 in 1931 — a decline comparable to that in Canada; the position of the United States of America on the world market was, however, better maintained.

The two largest European exporters, Finland and Sweden, each account for something more than 14 per cent of world exports and have both been able to maintain their relative position on the world market in spite of the growing Russian exports, the aggregate exports of the other countries having dropped proportionately more. In Finland, the output of planed timber increased rapidly up to 1928 and declined in the subsequent years, but less than that of unplaned timber. This differential movement would seem to indicate that activity in the finishing industry has fallen less than the general production figures would suggest.

The total production of the Swedish wood industry (official index of the *Kommerskollegium*), which showed a steady and considerable increase up to 1929, declined in 1930 by 5 per cent: according to the less comprehensive index of the *Svensk Finanstidning* and the export figures, the decline was greatly aggravated in 1931.

In Austria, Poland and Yugoslavia the production indices reached their highest point in 1928 and have since dropped steadily: from the trade returns, it would appear that a

¹ In April 1932, a meeting of timber experts was held at Geneva under the auspices of the Economic Committee of the League of Nations (document C.493.M.239.1932) to discuss the possibility of improving the situation of the industry by international measures. In June 1932, a Conference took place in Vienna as a result of which the timber interests of a number of European countries decided to adopt a scheme for the restriction of exports.

similar movement occurred in Roumania. As the exports of Czechoslovakia declined very heavily in 1930 and 1931, the relatively high level of activity maintained in this country would appear to be due to domestic consumption. The available export figures for Latvia and Lithuania show an increase in 1930 and a smaller decline than in most other countries in 1931. In Denmark and Norway, the high level of activity which was reached in 1929 was maintained; in Denmark, indeed, it was exceeded in 1930. Exports from Norway, however, dropped heavily in 1931.

Paper and Printing.

The paper and printing industries expanded rapidly between 1925 and 1929 with the increasing circulation of newspapers and output of books and the extended use of paper and paper products for industrial and commercial purposes. The world production of paper and paper boards rose by 30 per cent over this period.¹ The industrial demand for the products of the paper industry and for printing naturally fell off in the two subsequent years, but for two principal reasons — namely, that a large part of the demand is consumers' demand, and that the industries have been favourably affected by long-term technological changes and changes in consumers' habits² — these industries have suffered little in comparison with the majority of those studied above. From the data available, the world output of paper and paper boards would appear to have declined by about 9 per cent in 1930 and by approximately the same percentage in 1931. In this connection, it should be observed, however, that the paper and paper-board industry is, in all the main producing countries, highly rationalised and works with heavy fixed costs; it is thus extremely sensitive to reductions in output.

The largest individual producers of paper and their percentage share in world production in 1930 are as follows:

United States of America	30.9
Canada	15.8
Germany	12.8
United Kingdom	9.2
Japan	4.4
Sweden	3.6
Union of Soviet Socialist Republics	3.1

As may be seen from the indices given in Table 19,³ activity declined more rapidly in the North American countries than in Europe in 1930. Activity in the Canadian paper industry dropped by about 9 per cent in 1930 and again by 13 per cent in 1931. Like all countries with large timber resources, Canada produces and exports mainly newsprint. She accounts for about 50 per cent of world exports of paper. The United States' output dropped less than that of Canada in 1931, but the decline was more accentuated towards the end of the year. In Japan, production has declined relatively little since 1929; in Soviet Russia, output continued to expand in 1930 and, as far it can be estimated from indirect sources, was almost maintained in 1931.

¹ Statistics of output in all important producing countries are given in the *Statistical Year-Book of the League of Nations, 1931-32*. Table 58.

² It may be mentioned also that certain branches of publishing have prospered during the present depression as in periods of economic depression in the past. The reading of literature is a cheaper form of amusement than those more generally favoured in times of prosperity.

³ The indices shown refer mainly to actual quantities of paper (chiefly newsprint) and paper boards produced. Data on the manufacture of specially prepared paper, paper bags, boxes and other products are less readily available and are, in most cases, not included in the indices. Indices showing the activity of the printing industry generally relate to the consumption of newsprint.

In Germany, the biggest European paper-producing country, activity declined in 1931 more rapidly than in 1930. Paper for bags and the synthetic products used for constructional purposes were most seriously affected. Towards the end of 1931, the industry was severely hit by the emergency duty on wrapping paper imposed by the United Kingdom, which, in that year, took 44 per cent of the German exports of this class of paper.

The paper industry of the United Kingdom naturally benefited by this measure. The British index reached its lowest point in the second quarter of 1931, after which it rose sharply owing, it would appear, to the repercussions of a serious labour dispute in the Netherlands which broke out in July, the improved competitive position of the industry on foreign markets following the suspension of the gold standard, and finally the effect of the import duty mentioned above.

The paper industries of Sweden, Norway and Finland are much more dependent on exports than the industries of Germany and the United Kingdom. According to the index of the *Svensk Finanstidning*, production of paper in Sweden in 1931, after a decline in 1930, again approached the 1929 level. In 1930, manufactures of paper and boards continued to expand and the activity of the Swedish printing industry was also higher than in 1929. In 1931, Sweden and Finland benefited from the labour troubles in Norway, which are reflected in the low indices for that country in the second and third quarters of the year. As far as can be gathered from the available statistics, paper production in the minor producing countries has dropped little or not at all since 1929. In spite of a heavy drop in 1931, the French and Portuguese indices for that year were still above the 1929 level. In Italy, there has been a decline of 5 per cent and, in Belgium and Austria, of 8 or 9 per cent over the period; output in the Netherlands continued to expand in 1930, but would appear to have been heavily reduced in 1931, as a result of the labour dispute to which reference has been made above.

III. PRICE MOVEMENTS.

In the preceding chapters of this *Review*, frequent reference has been made to the disastrous decline in commodity prices which the world has experienced during the past three years. In the present chapter, an attempt is made to state in summary fashion the main features of this decline: attention is first directed to the course and effects of the general movement of wholesale prices in various representative countries; certain significant differences in the decline of particular commodity prices are next pointed out; and finally, reference is made to the very unequal incidence of falling prices on such commodity groups as raw materials and manufactured products, agricultural and industrial goods, cartellised and non-cartellised products, producers' and consumers' goods, etc.

MOVEMENTS OF THE GENERAL LEVEL OF WHOLESALE PRICES.

Contrary to most previous experience, the present period of rapidly falling prices was not preceded by a sharp rise in the general level of wholesale commodity prices. Price movements in the post-war decade were by no means uniform in all parts of the world but were largely dependent upon the peculiar monetary policy pursued by different countries. The general course of gold prices, as measured by the wholesale price index of the American Bureau of Labor Statistics, was, however, quite stable — that index (base 1913 = 100) stood at 139 in 1923 and 138 in 1929, and the year-to-year fluctuations in the intervening period never exceeded 5 per cent. A detailed analysis¹ shows, however, that the apparent stability of the wholesale commodity price-level during the period preceding the crisis concealed a condition of marked artificiality in the price structure — *i.e.*, in the relationship existing among the prices of particular groups of products. The nature of this artificiality can only be briefly indicated at this point: owing to a variety of factors, such as the rapid extension of raw material production which took place during the war, the inelasticity in the demand for certain crude foodstuffs and raw materials, the influence of technical progress in manufacturing industry in reducing the requirements of raw materials for a given unit of finished product, and the effect of tariff barriers in enlarging unused productive capacity in manufacturing industry, raising average costs of production of the latter, restricting the total volume of sales of finished products and consequently reducing the demand for raw materials, the prices of raw materials and crude foodstuffs tended, in many parts of the world, to be lower in relation to the prices of finished products than was the case before the war.²

¹ See League of Nations: *World Economic Survey*, 1931, Chapter VI.

² For detailed evidence on this point, see *Memorandum on Production and Trade*, 1923 to 1928-29.

The year-to-year fluctuations in the terms on which the States exporting chiefly raw materials were able to exchange these products for their imports of manufactured goods coincided, in point of time, with fluctuations of capital exports from the great creditor nations, becoming more favourable to the raw material producing States when capital exports rose, and *vice versa*; it would appear that international capital movements and the terms of trade were connected with each other by a process of mutual causation.¹ In part, the imports of capital into raw material producing States were used to maintain the prices of certain commodities for which the natural tendency of prices was, for the reasons given above, downwards. This resulted in an accumulation of stocks the financing of which was dependent upon a continuance of capital exports on a large scale. Between the middle of 1925 and the middle of 1929, for example, world stocks of rubber increased from 129,000 to 248,000 tons, those of sugar from 3.5 to 6.2 million tons and those of coffee from 6.9 to 15.6 million bags; further examples of the growth of stocks of important crude foodstuffs and raw materials are given in Chapter I above. When, for reasons into which it is not possible to go at this point, capital exports fell off in volume in 1928 and 1929, the price situation, which, in spite of the fact that the general level of wholesale prices had remained comparatively stable, was very vulnerable, was immediately affected. Borrowing States were forced to lower their prices in order to increase the volume of their exports and thus meet current deficits in their balances of payments; for a time the lower prices of raw materials stimulated the industrial boom and disguised the true nature of the situation. As the pressure increased, however, and especially after the break of the New York stock market in October 1929, the gradual price recession was transformed into a tremendous liquidation, which spread from raw materials to other commodities and affected all parts of the price system with greater or less intensity.

A comparison between the highest and lowest points reached in 1929 and 1931 respectively by the general indices of wholesale prices in different countries would show that the price decline (as measured by these indices) ranged from 25 to 45 per cent. Though the decline was severe in all parts of the world, it was particularly marked in States primarily producing crude foodstuffs and raw materials.

The disastrous effects of so sudden, drastic, and protracted a price decline as the world has witnessed during the past few years are well known and need not be discussed in detail here. In general, they are of two kinds — those relating to the distribution of the national income and those relating to its magnitude or, in other words, to the volume of production. Certain sources of income, such as interest and rent, are fixed by contract, and when a fall in commodity prices takes place without a corresponding increase in production, a larger share of what is produced falls to the fixed sources and a smaller share to the variable elements of the national dividend. The first impact of rapidly falling prices is upon profits, the most variable of all items; for, in addition to the fixed charges mentioned above, certain other

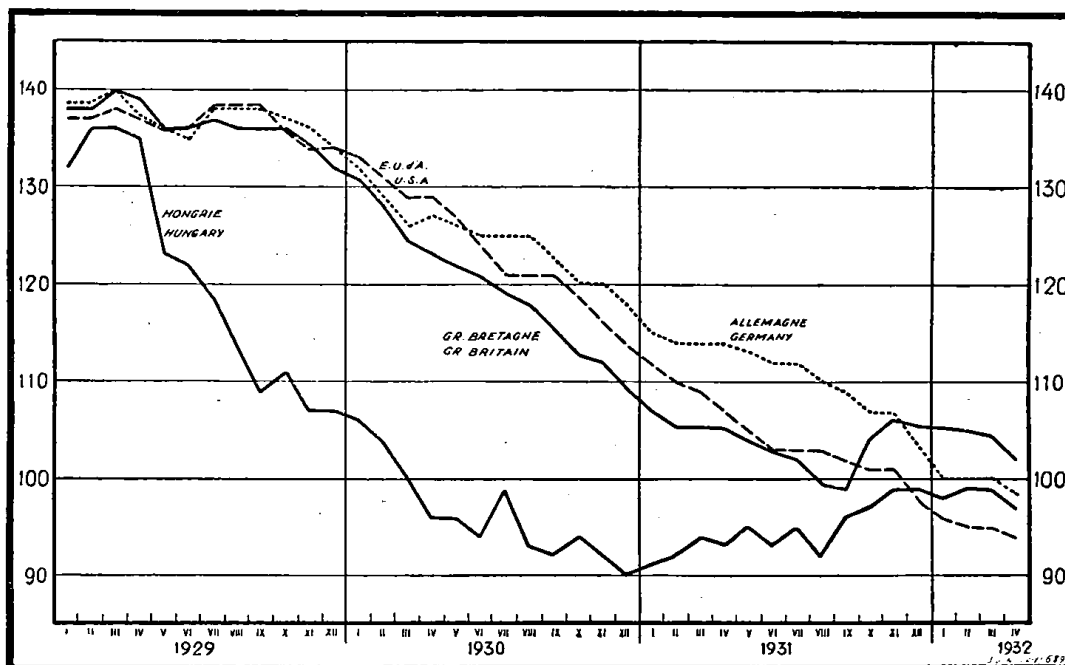
¹ See League of Nations: *Balances of Payments*, 1930, Geneva, 1932.

elements in the national income, such as wages, are often difficult to reduce, and the consequent discrepancy between costs and prices results in a reduction or entire elimination of profits. Enterprise and investment are discouraged, industrial production is curtailed and unemployment results. The increase in the real weight of fixed and semi-fixed charges caused by the rapid fall in prices has forced many individuals, companies and Governments to default on their obligations. The difficulties encountered in the payment of debt are intensified when the payment must be made across the frontiers of a particular State ; for, in the circumstances described, confidence is impaired and the opportunities of fresh foreign borrowing diminished, so that the debtor States are called upon to adjust suddenly their trade balances to the cessation of capital imports and to the necessity of meeting in merchandise exports the service of debt previously incurred and the payment of such amounts of fluid foreign capital as are withdrawn. The difficulty of achieving, within a short space of time and at the lower prices prevailing, a sufficient merchandise export surplus to meet the service of debt incurred when prices ruled considerably higher has constrained several States to proclaim moratoria on the transfer of these amounts in order to safeguard the value of their national currencies. It is a fact of particular significance that the countries which were first obliged to do so were certain States whose production consists chiefly of raw materials and crude foodstuffs.

In examining in detail the recent course of wholesale prices, it is necessary to distinguish between three groups of countries : first, those which have remained on an unrestricted gold standard ; secondly, those which have suspended the gold standard ; and, thirdly, those which, while nominally on the gold standard, have kept the official quotations of their currencies in the neighbourhood of par only through systems of foreign exchange rationing and control.

Diagram X.

WHOLESALE PRICE INDICES OF U.S.A., GREAT BRITAIN, HUNGARY AND GERMANY, 1929-1932.
(Pre-war base.)



In Diagram X, the wholesale price indices of the United States of America, the United Kingdom and Hungary since the beginning of 1929 (base 1913 or 1914) are graphically shown as representative of these three groups respectively; the price index for Germany is also shown. Detailed monthly figures for these and certain other countries may be consulted in Appendix VII, Table 1. It will be seen from the diagram that the movement of the general level of gold prices, as measured by the American index, has been rapidly downward almost without interruption since the autumn of 1929. Such recoveries as have occurred, whether seasonal or induced by special factors, such as the Hoover moratorium of June 1931, have been slight and short-lived. In the United Kingdom, prices rose after the suspension of the gold standard; the rise was not, however, proportionate to the depreciation of sterling, and the initial rise has not been maintained. In Hungary, the price movement has been irregularly upward since the beginning of 1931, and the rise has been intensified since the monetary crisis of the latter part of that year and the institution of official control of foreign exchange transactions. In Germany, on the other hand, where the exchange control has been accompanied by a programme of drastic internal deflation, the price level has fallen continuously.

Table XI below permits of a detailed examination of the movements of the general level of wholesale prices in fifteen representative countries since the beginning of the rapid price decline in the autumn of 1929. The table shows the percentage change in the wholesale price indices of these countries by half-yearly periods from September 1929 to March 1932.

Table XI.
 PERCENTAGE CHANGE IN WHOLESALE PRICE INDICES OF CERTAIN COUNTRIES
 BY SIX-MONTHLY PERIODS, SEPTEMBER 1929 TO MARCH 1932.

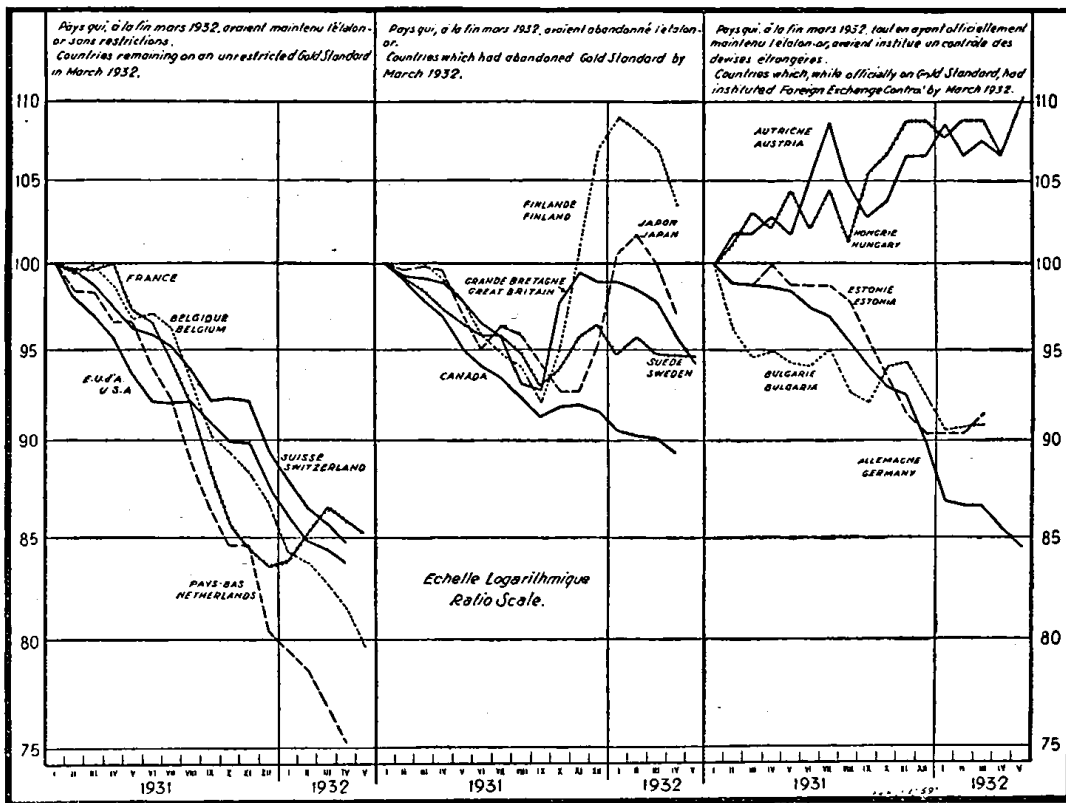
Countries	Percentage change				
	Sept. 1929- March 1930	March 1930- Sept. 1930	Sept. 1930- March 1931	March 1931- Sept. 1931	Sept. 1931- March 1932
<i>Countries remaining on an unrestricted gold standard in March 1932 :</i>					
Belgium	- 8.5	- 8.0	- 7.3	- 9.6	- 8.2
France	- 7.4	- 5.3	- 8.0	-11.2	- 2.3
Netherlands	-13.5	- 8.2	- 8.0	-10.7	- 9.9
Switzerland	- 7.9	- 6.1	- 7.6	- 6.3	- 7.2
U.S.A.	- 6.9	- 7.3	-11.5	- 7.3	- 4.5
<i>Countries which had abandoned the gold standard by March 1932 :</i>					
Canada	- 5.6	-10.2	- 9.0	- 6.8	- 1.3
Finland	- 4.2	- 4.3	- 2.3	- 8.1	+16.5
Japan	-10.0	-12.5	- 7.7	- 5.5	+ 5.9
Sweden	-10.7	- 4.8	- 5.0	- 3.3	+ 1.9
United Kingdom	- 8.3	- 7.2	- 8.3	- 6.3	+ 5.4
<i>Countries which, while officially remaining on the gold standard, had instituted foreign exchange control by March 1932 :</i>					
Austria	- 5.5	- 5.0	- 7.0	+ 0.9	+ 4.6
Bulgaria	-15.7	- 6.2	-10.3	+ 1.8	- 1.6
Estonia	- 9.4	- 4.7	- 7.9	- 3.2	- 4.5
Germany	- 8.5	- 2.9	- 7.3	- 4.7	- 8.1
Hungary	- 8.3	- 8.0	+ 2.2	+ 2.1	+ 3.1

The methods of establishing these indices are not uniform and no conclusions can therefore be drawn from slight differences in the movements in particular countries. A comparison among the three groups each considered as a whole, however, suggests that in the six months preceding the monetary crisis of September and October 1931, the general level of wholesale prices fell considerably less in most countries which subsequently introduced measures of foreign exchange control than in those which remained on an unrestricted gold standard ; in several of the former countries, indeed, prices actually rose in this period. It would also appear that, during this period, prices fell less in many countries which later suspended the gold standard than in those unrestrictedly maintaining their currencies on the basis of gold.

The course of wholesale prices during 1931 and the first part of 1932 may be studied in detail in Diagram XI which shows the monthly fluctuations in the wholesale price indices of the countries included in the above table since January 1931 on the basis of that month = 100. The curves are drawn on a ratio scale so that equal rates of decline are indicated by equal slopes of the curves.

Diagram XI.

WHOLESALE PRICE INDICES OF CERTAIN COUNTRIES, 1931-32.
(January 1931 = 100.)



The greatest uniformity is, of course, to be found among the full gold standard countries : wholesale prices in these countries continued steeply downward throughout 1931. In most cases, the sharp decline has persisted in the first months of 1932 : the only apparent exception is France, where the official price index rose by 3.5 per cent between December 1931 and March 1932 and fell slightly in April and May. It would appear that this rise is largely the result of increased protection given to domestic agriculturists : it has been almost entirely confined to vegetable and

animal foodstuffs, which rose by 7 and 12 per cent respectively, while other groups remained steady or fell. In the United States of America, on the other hand, wholesale prices fell continuously in the first months of 1932, and at the beginning of June were 5 per cent lower than at the beginning of January 1932 and more than 15 per cent lower than at the beginning of 1931.

In the countries which left the gold standard in the latter part of 1931, wholesale prices showed a more or less marked tendency to rise. Among the countries shown in Diagram XI, the upward movement was greatest in Japan and Finland. In these countries, wholesale prices rose by 10 and 20 per cent, respectively, between the suspension of the gold standard and the first months of 1932, carrying the official indices in both cases above the level prevailing at the beginning of 1931. During the first half of 1932, however, prices in all countries in this group shown on the diagram (with the exception of Sweden, where the policy has been to prevent the general level of wholesale prices from falling) have tended to follow the downward movement of prices in the gold standard countries. A rise in prices was, of course, to be expected after the suspension of the gold standard in view of the fact that the domestic prices of imported goods were bound to increase in so far as the depreciation in the exchange value of the national currencies exceeded the continued decline in the gold prices of these goods. In Canada, however, wholesale prices showed very little tendency to rise after the partial suspension of the gold standard in September and have fallen steadily since the latter part of 1931; in April 1932, the official index was more than 3 per cent lower than in August 1931, in spite of a currency depreciation that has at no time fallen far short of 10 per cent in this period. In the United Kingdom, the *Board of Trade* index of wholesale prices rose by about 7 per cent between August and November 1931, but has fallen continuously since that month. In May 1932, it was only 1.5 per cent higher than in August 1931, although the average depreciation of the pound against the leading gold currencies was some 25 per cent in the former month. The explanation of this discrepancy between the movements of the internal and external purchasing power of the pound would appear to be fourfold: in the first place, the general level of *gold* prices has fallen considerably since, and in part, indeed, as a result of, the depreciation of sterling and other currencies in terms of gold during the autumn of 1931. This has already been shown in Diagram XI above and is even more strikingly shown in the *Economist* index of the gold prices of ten primary products of world importance, which fell by over 20 per cent between the suspension of the gold standard by the United Kingdom and the beginning of June 1932. Secondly, it must be borne in mind that a substantial proportion of British imports comes from countries which have also suspended the gold standard, so that the sterling prices of such imports would not, in the absence of other factors, rise in proportion to depreciation of sterling against gold. In part, of course, this is but another aspect of the first factor mentioned above, as the suspension of the gold standard served, in the first instance at any rate, to effect an automatic reduction in the gold price of the exports of the countries in question. The strength of this influence may be gauged

from the fact that, according to the calculations of the Statistical Correspondent of the London *Financial Times*, the sterling prices of raw materials imported from gold standard countries rose by 26 per cent between September 18th and December 31st, 1931 (at which latter date the depreciation of the pound against the dollar was some 30 per cent), while sterling prices of raw materials imported from non-gold standard countries rose by 10 per cent during the same period. Further, it is to be observed that only the prices of such materials as are imported from abroad are immediately affected by a fall in the external value of the national currency. Raw materials produced at home will not necessarily rise in proportion; according to the last source quoted above, the sterling prices of such goods rose by less than 4 per cent between the middle of September and the end of December 1931. Finally, the cost of working up imported materials will change only in proportion to the change in the level of internal money costs, and since September the general tendency of money costs in the United Kingdom has been downwards. It is natural, then, that, if, to take a hypothetical illustration, the sterling prices of imported raw materials have risen since August by some 15 per cent, and if raw materials account for some 33 per cent of total costs, sterling prices of finished products should have risen by less than 5 per cent. A factor of great importance in preventing any rise in the level of money costs in the United Kingdom after the suspension of gold payments has been the stability of the cost of living, which has shown only fractional movements since August 1931.

Influences of a similar nature have prevented the wholesale price indices of many other countries which have suspended the gold standard from rising in proportion to the depreciation of their currencies. In Sweden, the official *Kommerskollegium* index stood less than 2 per cent higher in May 1932 than in September 1931; in the former month the depreciation of the currency against gold exceeded 25 per cent. According to the indices of the *Svenska Handelsbanken Index*, the prices of imported goods rose in Sweden by 15 per cent between the two months mentioned, while domestic goods fell slightly in price. It is of interest to observe that the recently constructed consumption price index of the Swedish Riksbank, which is based upon the retail prices of a wide selection of goods and services appropriately weighted, has risen by only 1 per cent between September 1931 and the first months of 1932.

Within the third group of countries shown in Diagram XI, the most striking price movements are those for Austria and Hungary: wholesale prices in these countries rose throughout the greater part of 1931 and were substantially higher in the first quarter of 1932 than at the beginning of the preceding year. In both countries, certain special factors of a monetary and financial nature, into which it is not possible to enter here, have helped to bring about this movement. The failure of the *Creditanstalt* in May, resulting as it did in an expansion of the rediscounts of the National Bank and a loss of faith in the stability of the currency, was followed by a "flight into goods" and it was only when assistance was granted by foreign credit institutions in July that some faith in the stability of the currency was re-established and the normal process of stock liquidation and falling prices could take place. In

addition to such special factors, however, it would also appear that the control of foreign exchange operations in these countries since the summer of 1931 has been partly responsible for the rise in prices. The exchange has been kept at nominal par only through rigid rationing and control; in unofficial markets it has been quoted at a substantial discount. The position of the two countries is, of course, not the same. In recent months the exchange control has been gradually relaxed in Austria, so that a constantly larger proportion of imports has been purchased at the uncontrolled price of the schilling. Prices of imported goods in term of schillings have accordingly risen. Before this policy was introduced, the rise in domestic prices in Austria reflected to some extent, as it reflects in Hungary, the natural result of a reduction of the circulation of goods, the imports of which were restricted by exchange control, unaccompanied by an equivalent reduction in the media of payment.

In many other countries which have instituted exchange restrictions, prices have fallen less than in countries remaining on an effective gold standard. The net effect of these conditions must, of course, be to reduce the competitive capacity in export of the country in question and thus to defeat the object for which exchange control was introduced. The curves for Bulgaria and Estonia in Diagram XI are further illustrations of this tendency. Within this group of countries, the most striking contrast to those mentioned is afforded by Germany. It will be seen from the diagram that during the first half of 1931 the fall in the German price level was considerably less marked than in that of the United States of America. The imposition of foreign exchange restrictions in July 1931 was accompanied by a policy of drastic deflation, which culminated in the Fourth Emergency Decree of December 1931. This decree imposed sweeping reductions in wages, rents, interest rates and the prices of cartellised articles; its purpose was to lower costs in manufacturing industry in order to enable Germany to maintain or increase the active trade balance which was necessary if she were to meet the service of any of her external debts. It is, of course, impossible to say to what extent, if any, this decree has been responsible for the fall in German prices which took place during December and January, but a glance at the diagram will show that this decline was very marked indeed. Between November 1931 and January 1932, the official wholesale price index for Germany fell by over 6 per cent; the decline was greater than in any other country shown in Diagram XI. This rapid decline was not, however, continued during the first months of 1932: the official index was steady in February and March; after falling quite rapidly in the next two months, it was less than 3 per cent lower in May than in January. As already noted, the wholesale price index for the United States of America dropped by 5 per cent in this period.

MOVEMENTS OF INDIVIDUAL COMMODITY PRICES.

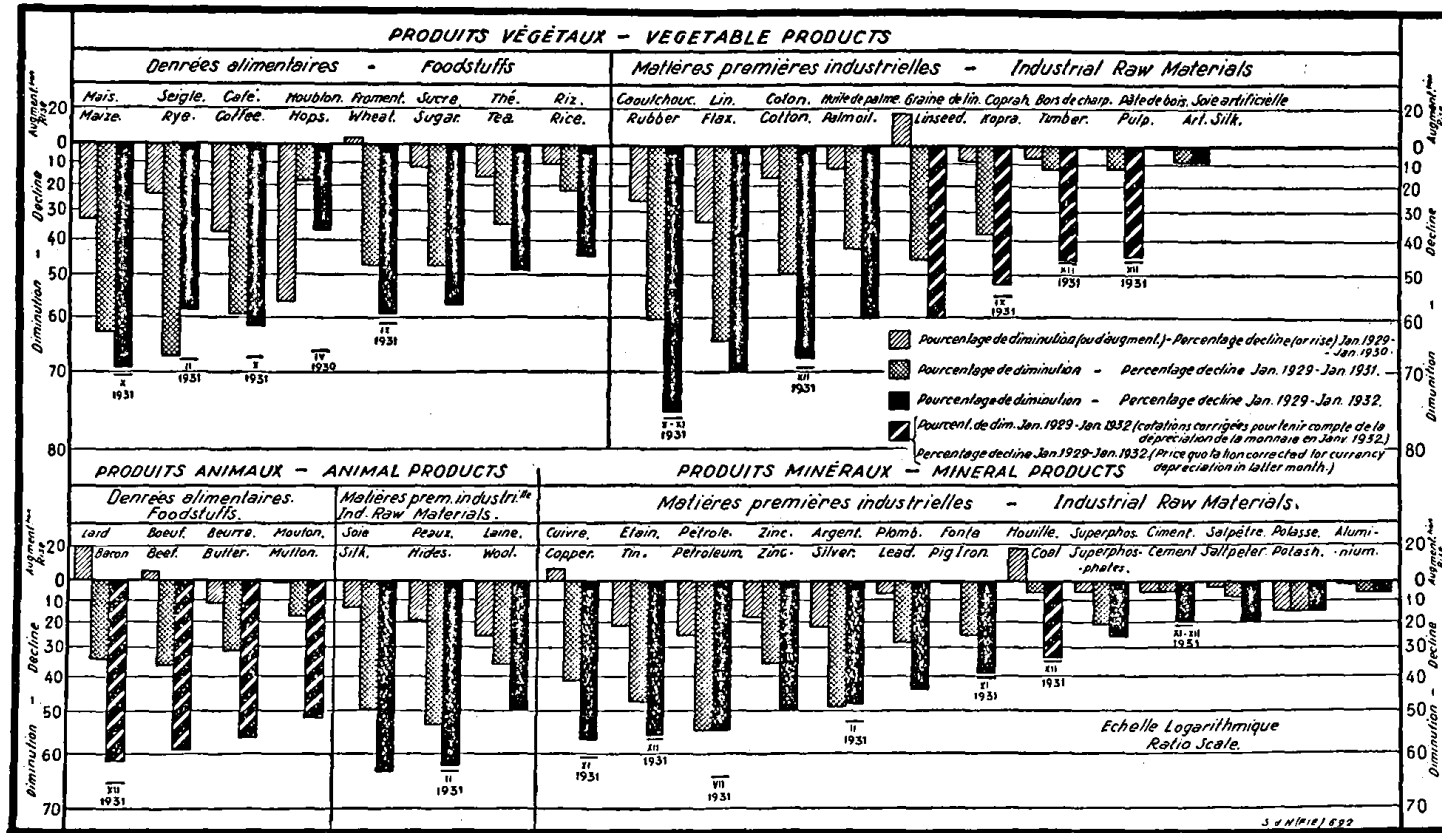
The extent of the decline in the prices of particular commodities has been mentioned in earlier chapters of this publication; the broad lines of the price evolution of some forty important articles on world markets since the beginning of 1929 will be seen in Diagram XII. The diagram shows the percentage price decline (or rise) for various commodities from the beginning of 1929 to the beginning of 1930, 1931 and 1932. In each case, the first bar indicates the fall (or rise) from January 1929 to January 1930, the second bar the fall from January 1929 to January 1931, and the third bar the fall from January 1929 to January 1932. A short line underneath the last bar marks the percentage decline from January 1929 to the lowest point reached in cases where this was prior to January 1932. The diagram is drawn on a logarithmic scale. The prices of commodities for which quotations on non-gold standard markets have been taken (bacon, coal and copra in England, butter in Denmark, beef in the Argentine, mutton in New Zealand, and timber and pulp in Sweden) are corrected for the average depreciation of the currencies at the relevant dates and are therefore to be regarded as representing nominal gold values for the commodities in question. Where such correction has been made, the bars are shown in a special shading as indicated on the legend.

The decline in the prices of vegetable foodstuffs has been particularly marked; certain products within this group, notably coffee, maize and rye were among those to fall soonest in price at the beginning of the depression. The initial rapid decline was especially violent in the case of coffee; after the break on the New York stock market in October 1929, the Brazilian producers were no longer able to secure foreign loans with which to finance their growing stocks and were accordingly forced to throw these on the market, with the result that prices fell by over 30 per cent within three months. The greatest decline in wheat prices took place in 1930 after the breakdown of the Canadian Wheat Pool and the cessation of an active price-supporting policy by the American Federal Farm Board. It might be thought that, on account of the relatively inelastic demand for wheat and other cereals, a relatively small restriction of production would have been sufficient to have maintained prices; but at the beginning of the present depression stocks in the hands of producers and dealers were abnormally high, and the inability to finance them, combined with the continuance of production on an unrestricted scale, resulted in a heavy fall in prices in spite of relatively unchanged consumers' demand.

At first, price relations were favourable to meat and dairy producers, for these commodities fell comparatively little in price, while maize and other fodder dropped very severely. But the favourable price relations stimulated production along these lines and at the same time the deepening of the depression caused a falling off in the demand for these relatively high-priced foodstuffs — so that, from the middle of 1930, animal foodstuffs fell very rapidly in price. During 1931, their decline was considerably greater than the decline in cereals and other vegetable foodstuffs, and greater indeed than the decline in almost any other group.

Diagram XII.

PERCENTAGE CHANGE IN PRICES OF CERTAIN FOODSTUFFS AND RAW MATERIALS
ON WORLD MARKETS, JANUARY 1929 TO JANUARY 1932.



Agriculture in general is a slower process than most other forms of production and supply cannot therefore be readily adapted to changed conditions of demand. For many agricultural commodities, the supply in any given year is largely dependent on weather conditions and other natural phenomena over which the producer can exercise no control; and in some cases — *e.g.*, rubber — it is dependent upon plantings made several years before the year of harvest. The influence of such factors in maintaining the output of certain organic products in spite of falling prices has been very marked; the output of most textiles, for example, has been kept at a relatively high level and, as the demand for these commodities is very sensitive to business conditions, their prices have fallen sharply. It will be seen from the diagram that all organic textiles have fallen by more than 50 per cent in price within the past three years. Artificial silk constitutes a striking contrast; the supply of this textile is readily adaptable to changes in demand and is, moreover, to a considerable extent subject to monopolistic control, and artificial silk prices fell by less than 10 per cent between the beginning of 1929 and the beginning of 1932.

The very marked decline in the prices of hides and petroleum is also largely to be explained by the inelasticity of their supply. The maintenance of slaughter largely consequent upon the favourable price relations prevailing for meat in the early stages of the depression automatically resulted in a large supply of hides at a time when the demand for hides was rapidly declining; the inevitable result was a severe fall in prices. In the case of petroleum, fixed costs constitute so high a proportion of the total cost of production that it pays to continue output even when prices drop to a very low figure. At their low point in July 1931, petroleum prices were almost 75 per cent lower than at the beginning of 1929, but they have shown a continuous and substantial recovery since then.

For inorganic commodities whose supply is readily regulated, the price decline has been much less marked than for those mentioned above; this has notably been the case with coal and iron and steel products. The price fluctuations of these goods appear to have been considerably less relatively to those of other goods than in most previous depressions; the fall in coal prices shown on the diagram for 1931 is, it may be noted, largely the consequence of the depreciation of sterling. The unusual rigidity of these prices would appear to be mainly the result of the increased cartellisation of these branches of industry. The effect of cartellisation is also clearly to be seen in the slight fall in the prices of the three chemicals included in the diagram; these products have fallen less than those of any other articles included with the exception of aluminium, artificial silk and cement, which are also subject to effective monopolistic control. The peculiar importance of the relatively small decline in the prices of such commodities as iron and steel, cement and certain metals and chemicals would appear to be that these goods are largely destined for real investment. It will be observed that timber, also a capital good, has fallen much less in price than most other vegetable products.¹ Consumption goods, such as foodstuffs, hops, textiles, etc.,

¹ It may be pointed out, moreover, that a Swedish quotation has been taken for timber, and the decline in 1931 is almost entirely due to the depreciation of the Swedish currency.

have in most cases fallen considerably more than capital goods. The significance of these price relationships and their influence on the volume of new investment are discussed in greater detail below. It may be observed that during 1931 and the first months of 1932 the fall in prices of capital goods has tended to increase in intensity, while there has been a certain slowing up in the price decline of important classes of consumption goods, such as vegetable foodstuffs and textiles.

The decline in prices appears to have been particularly marked in those crude foodstuffs and raw materials which were subject to organised attempts at valorisation, or price maintenance, in the period preceding the crisis. In most cases, these attempts did not result in a great curtailment of world production of the commodities in question, but rather in the accumulation of stocks. The financing of these stocks was often dependent upon the continuance of capital exports to the raw material producing States, and, when capital exports fell off, the accumulated stocks hung over the market and exercised a very depressing influence on prices. Rubber, coffee, sugar and wheat may be mentioned as examples of "valorised" commodities which have fallen very severely in price. Within the metals group, the price decline has been most severe for those commodities subject to ineffective monopolistic control; the copper producers' association, for example, succeeded in raising prices in 1929 in spite of a record production, but when it became impossible to finance the accumulated stocks the association broke down and prices fell very sharply. When, on the other hand, monopolistic control has been effective, as in the case of aluminium, prices have fallen little, if at all.

During the first months of the present year, the tendency of gold prices of raw materials has, on the whole, continued downwards. The *Economist's* special index of gold prices of ten primary commodities was over 15 per cent lower at the end of June than at the beginning of January. The weakness was particularly marked in metals and certain important colonial products; silver, for example, the price of which was very steady throughout the greater part of 1931, fell by 10 per cent between January and June 1932, when its price again approached a record low for all time. Copper, tin, zinc and lead were also weak, partly under the influence of inconclusive attempts to conclude new restriction agreements. The same factor affected the price of sugar, which dropped by over 20 per cent between January and the beginning of June; tea also continued to fall and rubber prices dropped more than 40 per cent in the first five months of 1932. Cereal prices showed considerable strength in the first quarter of the year, but rye and maize prices fell substantially in April, and fresh declines took place in the prices of wheat and most other cereals during the month of June. Hides and animal foods continued their rapid decline and many of these products reached new low levels in the most recent weeks for which data are available. Cotton, after rising somewhat in the first months of the year, again fell below the January level in April and May under the influence of American financial conditions and uncertainty regarding Federal Farm Board policy; other textiles showed little important movement in the first part of 1932.

THE INEQUALITIES IN RECENT PRICE MOVEMENTS.

If, as shown in the preceding section, the price movements of particular commodities on world markets have been far from uniform, the inequalities in the degree of price decline between significant commodity groups have been even more striking. In some respects, the most important of these inequalities is the discrepancy between price movements on world markets and on various national markets, and it is, accordingly, to this aspect of the problem that attention will first be directed.

World Market and Home Market Prices.

The magnitude of the present fall in prices appears most striking when attention is concentrated on the behaviour of raw material and partly manufactured goods prices on world markets. On many domestic markets the price decline has, for a variety of reasons which will be gone into in some detail below, been much less severe than on world markets; to a considerable extent it has been the object of economic policy during the past few years to widen the scope of goods which are not subject to international competition, and the prices of such commodities have fallen considerably less than those of raw materials, etc., freely traded in on organised exchanges. The discrepancy between the fall in the prices of domestic and international commodities on various markets is illustrated in the following table, which shows the percentage decline in the prices of these groups in four European countries between January 1929 and January 1932.

Table XII.

PERCENTAGE DECLINE IN PRICES OF DOMESTIC AND IMPORTED GOODS, JANUARY 1929 TO JANUARY 1932.

Country	Domestic Goods	Imported Goods
Czechoslovakia	22	35
France	25	59
Germany	17	48
Sweden ¹	22	37

It will be noted that all the countries included in the above table are highly industrialised. The imports of these countries consist largely of raw materials, while their domestic goods are chiefly finished products; the former group has, of course, fallen much more in price than the latter. An examination of Appendix VII, Table 3, will show that, in those countries for which domestic commodities consist chiefly of raw materials while imports are mainly manufactured goods, the price relationships have been quite different — *i.e.*, domestic goods have fallen much more in price than imported goods. The relatively greater fall in raw material prices is a common feature of periods of economic depression. In addition to this general reason, however, there are at least two special reasons why domestic prices have fallen less than international prices in many parts of the world. The first is that many attempts, public and private, have been made during the past two

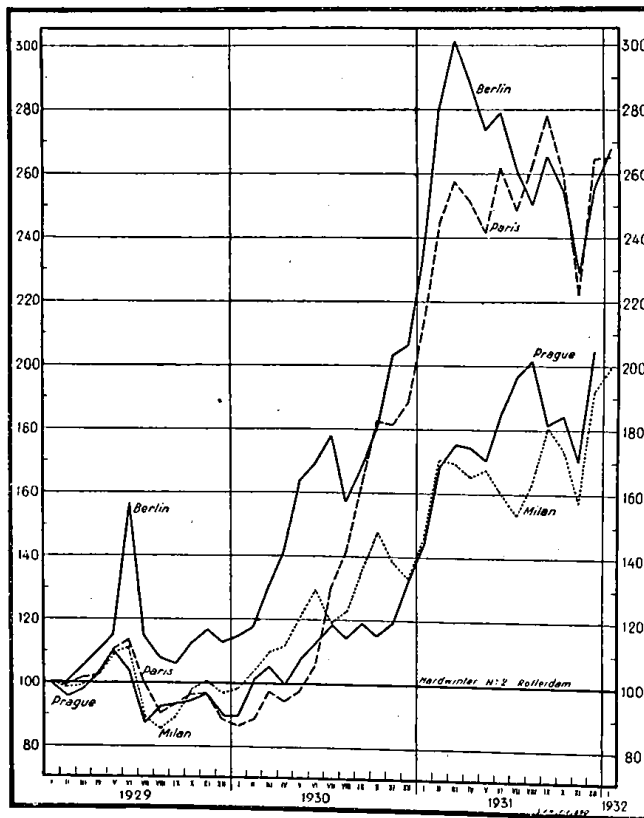
¹ January 1929 to September 1931.

years to protect domestic markets from the full force of the price decline on world markets. This has notably been the case with wheat. When the price of this cereal began to fall rapidly in the early months of 1930, many European States raised their Customs duties on imports and instituted special regulations compelling millers to mix a fixed proportion of domestic grain with that of foreign origin. The result was, of course, that the domestic price of wheat in these countries diverged widely from its world price. This divergence is illustrated in Diagram XIII, which shows the changes in the percentage ratio of the domestic price of wheat in Czechoslovakia, France, Germany and Italy to its world market price (Hardwinter No. 2 in Rotterdam) from January 1929 to January 1932, with the percentage ratio in January 1929 in each case taken as 100. It will be seen that at the beginning of 1932 the margin between the price of wheat in Italy and Czechoslovakia was twice as great as at the beginning of 1929, while in France and Germany it was two-and-a-half to three times as great.

Diagram XIII.

CHANGES IN RATIO OF DOMESTIC PRICE OF WHEAT IN CERTAIN COUNTRIES TO WORLD MARKET PRICE, JANUARY 1929 TO JANUARY 1932.

(January 1929 = 100.)



The great differences between the price of wheat on different markets are further illustrated in the following table, which shows the price in cents per bushel (60 lb.) in fifteen countries at the beginning of 1929 and the beginning of 1932.

Table XIII.

PRICE OF DOMESTIC WHEAT IN AMERICAN CENTS PER BUSHEL IN CERTAIN COUNTRIES,
JANUARY 1929 AND JANUARY 1932.

Country	January 1929	January 1932	Country	January 1929	January 1932
Argentina	113	44	Sweden	137	91
Canada	120	51	Poland	140	81
U.S.A.	121	58	Czechoslovakia. . .	147	121
United Kingdom. . .	123	53	Hungary	158	60
Bulgaria	125	78	India	158	60
Austria	131	120	France	164	179
Roumania	133	30	Italy	192	151
Germany	135	147			

On account of variations in quality, no significance is to be attached to small differences in price. The price discrepancies at the beginning of 1932 are, nevertheless, remarkable: the range between the cheapest exporting and most expensive importing country shown above was 80 cents per bushel in 1929 and almost twice that amount in 1932. Prices were naturally lowest in the great exporting countries: some small discrepancies within this group, possibly to be explained by varying degrees of exchange depreciation, appear to have existed at the beginning of 1932. On free markets, such as the United Kingdom and India, domestic prices followed world prices very closely. Among the wheat-exporting States of South-Eastern Europe, the fall, though great in all cases, was somewhat mitigated in those countries, like Bulgaria and Hungary, where special measures were taken to raise the domestic above the export price. In Roumania, where no such measures were taken, the decline in wheat prices was particularly marked; at the beginning of May, however, prices in this country were about one-third higher than in January 1932. Of the importing countries, Poland and Sweden maintained wheat prices at a relatively high level through various protective measures. Such measures had much more drastic effects in France, Italy, Germany, Czechoslovakia and Austria; in all these countries, prices at the beginning of 1932 were more than twice as high as in the main exporting States. In France and Germany, prices were higher in January 1932 than in January 1929, though world prices had fallen by 50 to 60 per cent in the interval.

The case of wheat is by no means unique; it is to be noted that, quite apart from the increases in the height of tariff barriers which have taken place, the real weight of specific duties is increased by the fall in prices and results in a greater proportionate discrepancy between world and home prices for the commodity in

question. Further, the effect of import quotas, exchange restrictions and all other obstacles to international commerce is also generally to increase the margin between national and world prices.

The second reason for this divergence between domestic and world market prices is the influence of cartels in maintaining certain domestic prices at a relatively high level. A quantitative measure of the significance of this factor is available only in the case of Austria and Germany; a detailed record of the monthly fluctuations of price indices of cartellised and non-cartellised commodities in these countries is given in Table 4 of Appendix VII (*d*). In Austria, non-cartellised prices fell by 26 per cent between the beginning of 1929 and the beginning of 1932, while cartellised products fell by less than 5 per cent. In Germany, where it is estimated that 50 per cent of industrial raw materials and semi-manufactured goods produced within the country are cartellised goods, these products fell in price by less than 20 per cent from the beginning of 1929 until the beginning of 1932, while non-cartellised goods dropped by 50 per cent. It will be observed, however, that between November 1931 and January 1932 — partly in consequence, no doubt, of the Emergency Decree of December 1931, which stipulated, *inter alia*, that prices of cartellised products should be reduced to at least 10 per cent below the level prevailing at the end of June 1931 — the fall in prices of cartellised goods was relatively rapid. Between the months mentioned, the index fell by almost 10 per cent as compared with a 9 per cent decline in the prices of non-cartellised products. Since this initial drop, however, cartellised prices have again shown greater rigidity; the decline between January and April has been only fractional, while non-cartellised prices have continued their rapid descent.

Before turning to the question of raw material and manufactured goods prices, it should be observed that, during the year 1931, the fall in prices of domestic goods in most industrial countries tended to accelerate, while the fall in prices of imports tended to fall off somewhat in intensity. In France, for example, national products fell by 6 and 16 per cent in 1930 and 1931 respectively, while imported products fell by 30 and 18 per cent. It is worth noting, however, that the rise in the French price level in the first quarter of 1932, to which reference has already been made, was most marked in the case of national products. In Germany, the fall in prices of foreign industrial raw materials and semi-manufactured goods decreased from 28 per cent in 1930 to 19 per cent in 1931, while domestic materials fell by 11 per cent in 1930 and 12 per cent in 1931. Between the Emergency Decree of December 1931 and the end of January 1932, domestic products fell some 8 per cent and imported goods by about 3 per cent, but, since the latter date, imported materials have again fallen more rapidly than those of domestic origin. In Sweden, the narrowing of the discrepancy between these groups, which was already to be observed during the first nine months of 1931, has, of course, been greatly emphasised since the suspension of the gold standard.

Raw Material and Manufactured Goods Prices.

The third, and in many respects the most important, reason for the differences in price movements on world markets and on the domestic markets of industrialised States is that the goods quoted on world markets are largely raw materials, while "domestic" goods in industrialised States consist largely of manufactured products. On account of the differences in the character of the competition in these two groups, raw materials always fall more during a period of economic depression than do manufactured goods. The existence of large stocks of the former in the hands of dealers serves to contract the demand very sharply at the beginning of a period of economic depression, while supply, on the other hand, is generally not easily regulated. The reaction of the primary producer to falling prices is, indeed, often to attempt to expand output in order to maintain gross receipts. The secondary producer, on the other hand, restricts production and thus helps to maintain the prices of his products.

The course of the prices of raw materials and manufactured goods during the past three years may be studied in Appendix VII, Table 5, where official indices of these groups are given for several countries. The percentage decline in the two groups in four important countries between the beginning of 1929 and the beginning of 1932 has been as follows :

Table XIV.

PERCENTAGE FALL IN WHOLESALE PRICE INDICES OF RAW MATERIALS
AND MANUFACTURED GOODS, JANUARY 1929 TO JANUARY 1932.

Country	Raw Materials	Manufactured Goods
Canada	38	22
Germany	31	21
Italy	44	30
U.S.A.	39	26

In general, it will be seen that the fall in raw-material prices has been about one-half as great again as the fall in prices of manufactured goods. During the year 1931, the decline in raw-material prices tended to become less marked in all countries, while manufactured goods either fell more in price than they had done in previous years or the slowing up of their rate of decline was proportionately less than in the case of raw materials. In industrialised countries which suspended the gold standard, imported raw materials rose in price, while domestic manufactured goods either failed to rise or rose considerably less. In Sweden, for example, the official index for raw materials rose by about 9 per cent between September 1931 and May 1932, while the prices of manufactured goods rose by less than 1 per cent.

Further light may be thrown upon the question of the price movements of raw materials and manufactured goods through a study of indices of these groups, divided according to origin, which have been prepared by certain National Statistical Offices in connection with a special enquiry into relative price movements undertaken in collaboration with the Secretariat of the League of Nations.

Germany.

Monthly indices of several groups of commodities divided according to origin and stage of manufacture are shown in the following table :

Table XV.

PRICE INDICES OF VARIOUS GROUPS OF RAW MATERIALS, SEMI-MANUFACTURED GOODS AND FINISHED PRODUCTS IN GERMANY, JANUARY 1929 TO JANUARY 1932.

(1913 = 100.)

Date	Articles of mineral origin			Articles of vegetable and animal origin			Foodstuffs	
	(1) Ind. raw materials	(2) Semi- manuf. goods	(3) Finished products	(4) Ind. raw materials	(5) Semi- manuf. goods	(6) Finished products	(7) Crude	(8) Finished
January 1929	119.3	141.0	131.4	130.3	141.5	171.2	125.1	138.6
January 1930	120.3	142.8	133.6	111.6	133.9	161.6	114.4	135.5
January 1931	105.2	130.4	129.5	73.8	103.4	137.6	113.9	133.4
January 1932	93.0	118.6	119.4	53.2	83.2	122.2	108.9	127.0
<i>Percentage decline, January 1929 to January 1932 .</i>	22	16	9	59	41	29	13	8

Columns (1), (4) and (7) show that the price decline in Germany has been most severe in industrial raw materials of vegetable and animal origin, considerably less marked in raw materials of mineral origin and least violent in crude foodstuffs. The first group consists largely of textiles, rubber and wood, which Germany imports and whose prices are determined on world markets. The resistance of mineral prices is largely to be explained by the success of cartels in controlling the prices of these products and the slight fall in crude-foodstuff prices is the result of the protection given to domestic cereal producers.

The price decline according to stage of manufacture has been the same as that already observed ; raw materials have in all cases fallen more in price than finished products, and semi-manufactured goods have fallen intermediately between the two. Complete indices show that, at the beginning of 1932, raw-material prices considered as a whole were some 15 per cent below the pre-war level, while semi-manufactured goods were at that level and finished goods prices about 25 per cent higher.

Italy.

Monthly indices are not available in the case of Italy ; the following table shows indices corresponding to those given above for the years 1929, 1930 and 1931 :

Table XVI.
PRICE INDICES OF VARIOUS GROUPS OF RAW MATERIALS, SEMI-MANUFACTURED GOODS
AND FINISHED PRODUCTS IN ITALY, 1929 TO 1931.
(1913 = 100.)

Year	Articles of mineral origin			Articles of vegetable and animal origin			Foodstuffs	
	(1) Raw materials	(2) Semi-manuf. goods	(3) Finished products	(4) Ind. raw materials	(5) Semi-manuf. goods	(6) Finished products	(7) Crude	(8) Finished
1929	447	463	500	489	513	523	500	506
1930	396	443	472	408	435	451	437	438
1931	349	378	452	336	348	387	375	376
<i>Percentage decline, 1929 to 1931</i>	<i>22</i>	<i>18</i>	<i>10</i>	<i>31</i>	<i>32</i>	<i>26</i>	<i>25</i>	<i>26</i>

In Italy, as in Germany and most other countries, the prices of manufactured articles stood higher in relation to raw-material prices even before the beginning of the present crisis than was the case before the war.¹ During the depression, raw-material prices have, in general, fallen more than those of finished products. Foodstuffs constitute an exception to this rule and it will be noticed that, in the case also of Germany, the discrepancy between the price movements of crude and finished products in this group is proportionately less than in other groups. The explanation would appear to be that these commodities characteristically undergo less processing than those of other groups, and consequently a fall in raw material prices can more readily make itself felt in a fall in the prices of finished foodstuffs. In addition, it should be borne in mind that the official price-reduction policies which have been carried on in both Italy and Germany have concentrated special attention on the prices of finished foodstuffs.

Agricultural and Industrial Prices.

One aspect of the discrepancy in the relative price movements just analysed which brings out very clearly the difficulties which such inequalities place in the way of normal trading relationships between nations is the difference in the price declines for agricultural and industrial products. The agriculturist is of all primary producers the least able to control his output. A farm cannot be closed down like an industrial establishment, and the supply in any particular year is largely

¹ For a more detailed discussion of this point and for indices for France and the United Kingdom for 1928 to 1930 similar to those reproduced above, see *Memorandum on Production and Trade, 1925 to 1929-30.*

dependent on fortuitous circumstances, such as weather conditions, over which the producer can exercise no control. Further, for the reasons already stated, his reaction to falling prices, unlike that of the industrialist, is likely to be in the direction of attempting to expand production in order to maintain gross receipts. The difficulty of transferring agricultural labour to other occupations in times of industrial unemployment serves to strengthen this tendency: in some cases, indeed, city workers are thrown back on the land. Agricultural prices naturally tend, then, to fall more rapidly than those of industrial goods. It may further be observed that, on account of the time-lag in agricultural production, the agriculturist is affected with double severity during a period of rapidly falling prices, for most of his expenditure is incurred when prices are relatively higher than those ruling when his crops are marketed.

The degree of price decline in agricultural prices and in the prices of non-agricultural commodities, and of goods of special interest to agriculturists as producers and consumers, can be studied in detail in Table 6 of Appendix VII. The following table summarises the fall in the agricultural price indices of eight important countries between the beginning of 1929 and the beginning of 1932:

Table XVII.

PERCENTAGE DECLINE IN AGRICULTURAL PRICE INDICES OF CERTAIN COUNTRIES,
JANUARY 1929 TO JANUARY 1932.

Canada ¹	52	Poland.	42
U.S.A.	50	Italy.	35
New Zealand	44	Germany.	30
Argentine.	42	United Kingdom ²	19

The decline has been particularly severe in countries producing chiefly cereals and textiles, and rather less in meat and dairy-producing countries, and in those which have taken special measures to protect domestic agriculture. The decline in agricultural purchasing power suggested by the above table has been compensated to only a limited extent by a fall in the prices of commodities purchased by farmers. In the United States of America, for example, non-agricultural commodities have fallen by only 26 per cent in the period to which the above table relates; fertilisers have fallen by 20 to 25 per cent and agricultural implements by only 2 per cent. In Canada, consumers' goods other than foodstuffs have fallen by 13 per cent and fertilisers by the same amount; in Poland, industrial goods dropped by 28 per cent and in Germany chemical fertilisers fell by 18 per cent. It has already been pointed out that, in the earlier period of the depression, price relationships were relatively favourable to meat and dairy-farming; the effect of the shift of production to these relatively high-priced commodities for which demand is sensitive to economic conditions may be illustrated by the following figures: in 1931, wholesale meat prices in the United States of America declined by 32 per cent,

¹ August 1929 to January 1932.

² Sterling prices.

as compared with 19 per cent in 1930 ; cereals fell by 34 and 27 per cent in 1930 and 1931 respectively. In Canada, prices of field crops fell by 54 per cent in 1930 and only 2 per cent in 1931 ; animal crops fell by 17 and 24 per cent respectively. In Yugoslavia, vegetable products declined in price 29 per cent in 1930 and 3 per cent in 1931 and animal products 10 and 32 per cent in these years.

Import and Export Prices.

The extent to which the economic status of agricultural producers is adversely affected by the decline in prices may be exaggerated by the above figures, for it must be remembered that a large part of what is consumed on farms is also produced there, and is not affected by the price decline. Nevertheless, it is patent that such price relationships as have been described above place the severest obstacles in the way both of the domestic trade of mixed agricultural and industrial economies, such as the United States, and of international trade, for such trade consists largely of an exchange of crude foodstuffs and raw materials against finished products.

The unequal fall in the prices of these two commodity groups makes it necessary for primary producers to reduce their purchases of finished products ; this in turn has the result of causing a restriction of output in industrial countries, contributing to unemployment, thus reducing still further the demand for raw materials, and again causing a renewed fall in their price.

The discrepancy between the movements of import prices on the one hand and home market and export prices on the other in certain industrialised States has already been pointed out above ; the relevant indices, and those for certain raw material producing countries, are given in Table 3 of Appendix VII. The following table, which is based on official indices of import and export prices, will serve to illustrate the changes that have taken place in the barter terms of trade of the two groups of States in question over the past few years :

Table XVIII.

IMPORT AND EXPORT PRICE INDICES¹ OF CERTAIN COUNTRIES, 1929 TO 1931.
(1913 = 100.)

Country	1929			1930			1931			Percentage change 1929-1931		
	Im- port	Ex- port	Barter terms of trade (ex- ports =100)	Im- port	Ex- port	Barter terms of trade (ex- ports =100)	Im- port	Ex- port	Barter terms of trade (ex- ports =100)	Im- port	Ex- port	Barter terms of trade (ex- ports =100)
Germany	126	132	105	109	124	114	84	108	129	-33	-18	+23
United Kingdom	134	159	119	117	152	130	93	136	146	-31	-14	+23
Latvia	110	158	144	97	136	140	83	102	123	-24	-35	-15
New Zealand	136	148	109	135	116	86	133	89	67	-2	-40	-39

¹ Not adjusted for exchange fluctuations.

The figures of barter terms of trade indicate how many units of imports the countries in question received in exchange for 100 units of their exports (on the basis of prices prevailing in 1913) in each of the years under review. It will be seen that the exports of the last two countries, which are primarily producers of crude foodstuffs and raw materials, fell much more in price than their imports, which consist chiefly of manufactured goods, between 1929 and 1931. In other words, as shown in the last column, the barter terms of trade turned against them; Latvia, for example, was able to buy 15 per cent less imports with a given unit of exports in 1931 than in 1929. For New Zealand, the deterioration in the barter terms of trade is even more marked (39 per cent); but this is in some measure due to exchange difficulties, which kept the domestic prices of imports relatively high. For the two industrial states, Germany and the United Kingdom, the situation was, of course, the opposite. With a given unit of exports both these countries were able to buy 23 per cent more of imports in 1931 than in 1929. It is, perhaps, not necessary to point out that this apparent advantage to industrialised States was purchased at the cost of a greatly reduced volume of exports.

Wholesale and Retail Prices.

So far, the discussion has been confined to the inequalities in the movements of various groups of wholesale prices. An important aspect of price discrepancy to which attention will now be directed is the difference in the movement of wholesale and retail prices. In part, the discrepancy which is revealed by a comparison of the relevant indices is due to factors which have already been described: wholesale price indices are often heavily weighted with raw materials and semi-manufactured goods, the prices of which are determined by international competition on world markets, while cost-of-living indices, which are usually taken as representative of retail prices, generally consist largely of finished products, whose prices, for the reasons given above, fall less during a period of economic depression, and, in addition, include such items as rent, lighting and transport which do not receive proportionate weight in the wholesale price index. The prices of many of these services have been very rigid during the present depression. In part, the discrepancy is due to the fact that, on account of the regional character of competition in the retail trade, the retailer is often able, when wholesale prices fall, to sell his stock at or near the cost price to him rather than at its replacement price, so that the consumer does not immediately reap the benefit of a decline in wholesale prices. Further, a large part of the costs of retailing, such as rent and service, are relatively fixed and do not vary directly with the amounts sold; when sales fall off during a period of economic depression, much the same overhead costs must, consequently, be spread over a reduced turnover if total costs are to be covered. It should be noted that, under such circumstances, high trading margins do not necessarily mean high profits.

The differences in the degree of decline of wholesale prices and the cost of living can be studied in detail through a comparison of Tables 1 and 2 of Appendix VII; they are illustrated in the following table, which shows the percentage drop in official indices for six countries from the beginning of 1929 to the beginning of 1932:

Table XIX.

PERCENTAGE DECLINE IN WHOLESALE PRICES AND COST-OF-LIVING INDICES
IN CERTAIN COUNTRIES, JANUARY 1929 TO JANUARY 1932.

Country	Wholesale prices	Cost of living	Country	Wholesale prices	Cost of living
Netherlands	43	14	Switzerland	29	11
France	36	0	Germany	28	19
U.S.A.	31	17	South Africa	20	8

Enough has been said regarding the incomparability of these indices to make it obvious that they are grouped together only to illustrate the differences in the movement which has taken place without attempting to draw any conclusions from a direct comparison of the indices. If wholesale and retail price indices were available for more comparable groups of commodities they would doubtless show movements much more similar than those illustrated above. Retail prices of foodstuffs would appear to have followed wholesale prices quite closely; stocks in the hands of retailers are normally small, and these products generally undergo relatively little processing. Between 1929 and the end of 1931, wholesale prices of foodstuffs fell by 29 per cent in the United States of America and retail prices by 27 per cent. In Canada, wholesale prices of foodstuffs ready for consumption fell by 36 per cent between 1929 and the beginning of 1932, while retail prices of foodstuffs dropped by 31 per cent. In this country, wholesale prices of consumers' goods other than foodstuffs fell by 12 per cent, while an index of retail prices of commodities other than foods, prepared by the Dominion Bureau of Statistics in connection with the special enquiry into relative prices referred to above, dropped by 13 per cent in the same period.

During 1931, the rate of decline of retail prices in most countries tended to increase, while in many parts of the world wholesale prices fell at a considerably slower rate than in 1930. This is illustrated in the following table, which shows the percentage change in wholesale prices and the cost of living by years for the countries included in Table XIX above.

Table XX.

PERCENTAGE DECLINE IN WHOLESALE PRICES AND COST-OF-LIVING INDICES
IN CERTAIN COUNTRIES, 1929, 1930 AND 1931.

Country	Wholesale prices			Cost of living		
	1929	1930	1931	1929	1930	1931
Netherlands	11	34	4	1	6	8
France	11	14	16	+5 ¹	+7 ¹	11
U.S.A.	4	18	13	1	8	9
Switzerland	5	15	12	0	3	8
Germany	5	13	13	1	7	11
South Africa	10	5	6	2	2	5

¹ Rise.

In most countries which suspended the gold standard in the autumn of 1931, the subsequent rise in wholesale prices was not accompanied by a rise in the cost of living. In the United Kingdom, for example, the general level of wholesale prices was some 2 per cent higher in April 1932 than in August 1931, while the cost of living was fractionally lower; in Sweden, the position was much the same. In Finland, the 20 per cent rise in wholesale prices which took place between September 1931 and March 1932 brought about a rise of only 2 per cent in the cost of living. The rise in wholesale prices in Austria, to which reference has been made above, was accompanied by a rise in the cost of living; the latter index was 5 per cent higher in January 1932 than in April 1931, but since the beginning of this year it has again shown a tendency to fall.

During the first months of 1932, the relative movements of the wholesale price and cost-of-living indices have not been uniform in all countries included in the above table. In certain countries where the level of wholesale prices continued to fall, the cost of living appears to have fallen even more. In Germany, for example, the wholesale price index fell by 2.8 per cent between January and May 1932, while the cost of living fell by slightly more than 3 per cent; in the United States of America, the wholesale price index fell by 2.7 per cent and the cost-of-living index by 3.2 per cent between January and April. In Switzerland, on the other hand, wholesale prices fell by 3.6 per cent and the cost of living by only 2.8 per cent between January and April 1932. In France, where wholesale prices were somewhat higher in May than in January 1932, the cost of living was steady.

Prices of Consumption and of Investment Goods.

The inequalities in price relationships which have so far been described are, on the whole, characteristic of periods of economic depression and differ from those experienced in most earlier periods only in their intensity and duration. The price relationship of consumption and investment goods appears, however, to have been the opposite during the past few years to that observed in earlier crises for which statistical data are available. In the past, the rapid contraction in the demand for investment materials which took place at the beginning of a period of economic depression has generally been sufficient to cause a very sharp fall in the price of such goods. The demand for consumption goods has, for a number of reasons, been relatively better maintained, so that, in so far as influenced by this factor, their prices have shown greater resistance. Consequently, as past depressions have proceeded, the price relationships between these two groups have been of such a nature as to stimulate a resumption of investment and internal economic recovery.

During the present depression, as already stated, the price relationship has been of quite a different character. In those countries for which serviceable data on this point are published, investment goods have fallen considerably less in price than consumption goods. Such countries are, in fact, few; for, though many official indices of producers' and consumers' goods are published, the former in most cases include all raw materials and semi-manufactured goods, while the latter include

finished products ready for consumption, so that the division is effectively according to stage of manufacture rather than purpose or use. Certain indices of the latter type are, however, shown in Appendix VII, Table 7. From these indices, it appears that, in the United States of America, processed consumers' goods fell in price by some 30 per cent between the beginning of 1929 and the end of 1931, while producers' goods destined for capital equipment dropped by only slightly more than 20 per cent. In Canada, consumers' goods fell by 22 per cent between the beginning of 1929 and the beginning of 1932, while producers' equipment fell by about 4 per cent and building materials by 19 per cent. In Germany, finished consumers' goods fell by 27 per cent in the same period, and finished producers' goods by about 10 per cent. In Italy, a price index of consumption goods, prepared in connection with the special enquiry to which reference has already been made, was 29 per cent lower in 1931 than 1929, while a corresponding price index of investment goods was only 19 per cent lower.

The explanation of these unusual movements would appear to be that the most important raw materials for investment goods, such as iron and steel products and certain other minerals, have come under the control, to an increasing extent, of large cartels and trusts which attempt to pursue a policy of stable prices in good times and bad, with the result that business fluctuations make themselves felt in marked changes in output rather than in prices. In Germany, for example, in the period to which the above percentage figures relate, the raw materials for producers' goods dropped by only slightly more than 23 per cent, while the raw materials for consumers' goods dropped by some 50 per cent. The decline in the former group corresponds very closely with the 20 per cent decline in the prices of cartellised products already noted.

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PRIMARY PRODUCTION.

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¹ In order that the same composition may be used for the tables in the French and English editions, the French alphabetical order of countries has been adopted in the English text.

Appendix I.

METHOD OF CALCULATION OF THE COMPOSITE PRODUCTION INDEX.

The index is composed of 66 articles which are given in Appendix II. For the purposes of the calculation of the index, a "weight" has been attributed to each commodity equivalent to its relative importance as measured by its aggregate value at selected "world" prices. The prices selected are intended to be representative in the sense that they refer to representative qualities and that their ratios are fairly typical of relative values on the world market. They are, in most cases, annual averages of actual quotations for medium qualities of the various articles in leading producing countries; they are not averages of prices of different qualities or of prices in different countries. In the case of certain commodities, however, the average export price of the principal exporting country has been selected. They have all been converted into terms of dollars according to the annual average rates of exchange.

The indices are thus compiled by the aggregative method, the mathematical formula of which is:

$$I = \frac{q^1 p' + q^{1''} p'' + q^{1'''} p''' + \dots + q^{1^n} p^n}{q^0 p' + q^{0''} p'' + q^{0'''} p''' + \dots + q^{0^n} p^n} = \frac{\Sigma(q^1 p)}{\Sigma(q^0 p)}$$

The quantity of each commodity produced each year (q' , q'' , q''' , etc.) is multiplied by the price of that commodity (p' , p'' , p''' , etc.) and the resulting totals for all commodities are summed up. The absolute figures thus obtained for each year are then converted into percentages of the absolute figure for the basic year. As the prices are constant, variations in the index represent changes in the quantities produced and not in the values.

In view of the changes that have taken place in relative values, two different calculations have been made, employing the prices for 1925 and 1930 respectively.

Two tables showing the aggregates from which the general index has been calculated are given below.

Appendix I (continued).

PRODUCTION AGGREGATES IN TERMS OF DOLLARS (000,000's omitted).

(a) *Aggregates according to 1925 Prices.*

Groups of Commodities	Average 1925/29	1925	1926	1927	1928	1929	1930
Cereals and other food crops .	26,600.9	26,104.9	25,944.0	26,351.0	27,536.4	27,068.3	27,764.2
Meat *	11,975.9	11,312.3	11,518.6	12,009.6	12,538.2	12,500.7	11,842.8
Wine and hops	506.2	541.2	403.9	488.1	546.6	551.2	476.4
Coffee, tea, cocoa	1,127.9	973.1	989.8	1,310.6	947.7	1,418.3	1,001.7
Tobacco	667.4	663.8	653.2	643.6	670.6	705.7	727.7
Vegetable-oil materials	2,232.3	2,115.3	2,098.3	2,327.6	2,236.2	2,384.3	2,242.9
Textiles	7,003.1	6,697.4	7,012.6	6,648.3	7,215.3	7,441.7	7,255.3
Rubber	872.7	695.0	827.9	812.1	877.9	1,151.7	1,089.8
Wood-pulp	637.9	549.2	598.7	637.3	656.5	748.0	721.1
Fuels	7,114.8	6,586.3	6,601.2	7,261.6	7,267.8	7,857.3	7,240.1
Metals (smelter production) .	5,513.7	4,879.0	5,039.0	5,456.1	5,838.9	6,355.7	5,235.3
Non-metallic minerals	896.1	782.5	836.9	903.0	957.2	1,000.8	979.6
Chemicals (fertilisers)	766.1	672.5	664.9	705.8	835.3	951.9	857.5
Total	65,915.0	62,572.5	63,189.0	65,554.7	68,124.6	70,135.6	67,434.4
Crude foodstuffs	40,210.9	38,931.5	38,856.3	40,159.3	41,568.9	41,538.5	41,085.1
Raw materials	25,704.1	23,641.0	24,332.7	25,395.4	26,555.7	28,597.1	26,349.3

Territorial Divisions	Average 1925/29	1925	1926	1927	1928	1929	1930
Europe, excluding U.S.S.R. . .	18,318.3	17,387.9	16,311.6	18,303.1	18,975.8	20,612.9	19,095.4
Europe, including U.S.S.R. . .	24,488.9	23,130.5	22,527.8	24,465.8	25,322.9	26,996.8	25,935.4
North America	19,585.5	18,721.9	19,580.7	19,287.8	20,391.6	19,945.1	18,312.4
Latin America	5,646.8	5,336.8	5,376.8	5,772.0	5,779.0	5,971.1	5,595.8
Africa	1,960.1	1,876.7	1,854.5	1,914.8	2,019.3	2,135.8	2,062.0
Asia	12,576.9	11,982.0	12,176.5	12,487.7	12,855.3	13,383.2	13,711.1
Oceania	1,656.8	1,524.6	1,672.7	1,626.6	1,756.5	1,703.6	1,817.7
WORLD	65,915.0	62,572.5	63,189.0	65,554.7	68,124.6	70,135.6	67,434.4

* Partly based on estimates.

Appendix I (concluded).

PRODUCTION AGGREGATES IN TERMS OF DOLLARS (000,000's omitted).

(b) Aggregates according to 1930 Prices.

Groups of Commodities	Average 1925/29	1925	1926	1927	1928	1929	1930
Cereals and other food crops .	18,216.7	17,967.7	17,807.3	18,030.5	18,744.8	18,532.8	18,850.4
Meat *	11,255.4	10,675.2	10,857.5	11,276.4	11,743.9	11,724.1	11,106.5
Wine and hops	723.2	784.8	570.9	695.7	787.0	777.8	678.8
Coffee, tea, cocoa	600.0	529.9	542.8	665.5	541.2	720.5	552.8
Tobacco	834.7	830.2	817.0	805.0	838.8	882.6	910.1
Vegetable-oil materials	1,622.8	1,548.1	1,531.4	1,685.5	1,622.9	1,726.7	1,626.8
Textiles	3,535.2	3,416.6	3,560.0	3,335.8	3,625.8	3,737.8	3,647.9
Rubber	160.6	127.9	152.3	149.4	161.5	211.9	200.5
Wood-pulp	522.1	449.3	489.8	521.7	537.2	612.6	590.4
Fuels	5,573.3	5,182.4	5,187.0	5,691.8	5,679.6	6,125.8	5,633.0
Metals (smelter production) .	4,673.1	4,126.1	4,258.3	4,617.4	4,953.7	5,409.8	4,416.5
Non-metallic minerals	773.6	675.6	722.7	779.5	826.4	863.9	845.4
Chemicals (fertilisers)	726.5	639.5	637.4	677.1	787.0	891.5	808.6
Total	49,217.2	46,953.3	47,134.4	48,931.3	50,849.8	52,217.8	49,867.7
Crude foodstuffs	30,795.3	29,957.6	29,778.5	30,668.1	31,816.9	31,755.2	31,188.5
Raw materials	18,421.9	16,995.7	17,355.9	18,263.2	19,032.9	20,462.6	18,679.2

Territorial Divisions	Average 1925/29	1925	1926	1927	1928	1929	1930
Europe, excluding U.S.S.R. .	14,772.6	14,020.0	13,125.1	14,782.5	15,344.0	16,592.9	15,271.6
Europe, including U.S.S.R. .	19,323.2	18,240.4	17,706.3	19,355.6	19,995.1	21,320.1	20,199.7
North America	15,326.0	14,733.9	15,333.2	15,071.1	15,857.8	15,632.9	14,216.8
Latin America	3,845.2	3,673.8	3,693.7	3,882.5	3,979.4	3,996.9	3,910.7
Africa	1,421.5	1,355.7	1,349.0	1,394.6	1,467.2	1,540.4	1,504.8
Asia	8,313.4	8,030.0	8,056.4	8,254.3	8,508.7	8,717.8	8,953.2
Oceania	987.9	919.5	995.8	973.2	1,041.6	1,009.7	1,082.5
WORLD	49,217.2	46,953.3	47,134.4	48,931.3	50,849.8	52,217.8	49,867.7

* Partly based on estimates.

Appendix II.

INDICES OF WORLD PRODUCTION OF PRIMARY COMMODITIES.

Average Annual Production in 1925-1929=100.

Groups of Products	1925	1926	1927	1928	1929	1930	*1931
<i>Cereals and other food crops</i> ¹							
Wheat	95	99	101	109	98	111	103
Rye	105	97	102	95	101	100	91
Barley	95	91	92	107	115	113	97
Oats	91	100	95	109	105	102	95
Maize	105	100	98	97	101	90	97
Rice	99	99	99	102	100	106	103
Potatoes	97	88	100	103	112	111	111
Sugar { Beet sugar	96	89	102	108	105	133	99
Cane sugar	95	95	100	105	106	99	100
<i>Meat</i> ²							
Beef	*99	*100	*99	*99	*102	*96	...
Veal	*96	*97	*100	*103	*104	*97	...
Pork, bacon, etc.	*92	*93	*101	*109	*105	*102	...
Mutton and lamb	*91	*96	*102	*104	*107	*98	...
<i>Wine and hops</i>							
Wine	109	79	96	109	107	93	96
Hops	89	89	99	99	124	97	74
<i>Coffee, tea, cocoa</i>							
Coffee	83	83	125	73	136	83	110
Tea	91	97	100	104	109	99	101
Cocoa	95	97	98	106	104	100	109
<i>Tobacco</i>	99	98	96	100	106	109	...
<i>Vegetable-oil materials</i>							
Cotton-seed	106	106	91	99	99	97	100
Linseed	105	102	107	102	83	103	...
Rape-seed	123	94	101	90	93	111	...
Hemp-seed	100	97	98	100	104	96	...
Sesamum	86	90	108	106	111	125	...
Soya beans	92	100	104	102	102	114	113
Copra	86	95	92	111	116	100	...
Palm oil and palm-kernel oil (crude)	100	96	99	100	105	113	...
Olive oil (crude)	79	67	128	77	149	52	104
Ground-nuts	87	90	105	114	104	118	...
<i>Textiles</i>							
Cotton	105	107	90	99	99	97	102
Flax	112	94	82	99	114	115	127
Hemp	108	100	101	100	91	91	90
Manila hemp	97	98	93	96	115	105	...
Jute	87	118	99	96	100	109	54
Wool	92	98	100	105	105	100	...
Raw silk	88	93	99	107	112	110	105
Artificial silk	60	71	99	123	147	140	156

* Partly based on estimates.

¹ Excluding China, but including certain crops in Manchuria.

² Excluding China.

Appendix II (concluded).

INDICES OF WORLD PRODUCTION OF PRIMARY COMMODITIES.

Average Annual Production in 1925-1929=100.

Groups of Products	1925	1926	1927	1928	1929	1930	*1931
<i>Rubber (crude)</i>	85	95	93	101	132	125	121
<i>Wood-pulp</i>							
Mechanical pulp	89	96	99	104	112	110	...
Chemical pulp	85	93	100	103	119	115	...
<i>Fuels</i>							
Coal	95	95	103	100	107	97	86
Lignite	91	91	98	106	113	96	88
Petroleum	86	88	101	106	119	113	110
<i>Metals (smelter production)</i>							
Pig-iron: total production	90	92	101	103	114	93	65
" other than for steel-making	*95	*93	*107	*98	*107	*90	*64
Steel	88	90	99	107	117	92	67
Copper	87	91	95	107	121	100	85
Lead	91	97	103	103	106	99	83
Zinc	87	94	100	108	112	107	77
Tin	89	90	96	110	114	109	95
Aluminium	81	89	96	109	124	121	101
Nickel	87	79	81	119	134	127	85
Silver	97	101	101	99	102	95	75
<i>Non-metallic minerals</i>							
Cement	82	88	95	102	105	102	...
Asbestos	90	98	95	102	115	96	72
Salt	90	94	100	104	111	110	...
<i>Chemicals (fertilisers)</i>							
Natural phosphates	89	98	104	103	106	119	74
Potash	90	79	92	103	136	104	77
Sulphur	75	96	107	102	119	129	110
Natural guano	114	78	87	102	118	109	...
Nitrate of soda	98	80	66	126	129	101	...
Nitrate of lime	75	73	95	115	141	173	...
Superphosphates of lime	95	96	97	104	109	107	63
Basic slag	84	88	103	108	116	98	...
Cyanamide of calcium	79	95	97	110	120	111	...
Sulphate of ammonia	82	82	96	103	137	122	...
Sulphate of copper	86	95	105	120	94	92	...

* Partly based on estimates.

Appendix III.¹

INDICES OF PRODUCTION OF PRIMARY COMMODITIES, WEIGHTED BY 1925 AND 1930 VALUES.

Average Annual Production in 1925-1929 = 100.

Continents and Groups of Products	Weighted by 1925 Values							Weighted by 1930 Values						
	'925	1926	1927	1928	1929	1930	*1931	1925	1926	1927	1928	1929	1930	*1931
WORLD : General Index	95	96	99	103	106	102	98	95	96	99	103	106	101	96
<i>Crude foodstuffs</i>	97	97	100	103	103	102	100	97	97	100	103	103	101	99
Cereals	98	99	99	104	101	102	99	99	99	99	103	101	101	98
Cereals and other food crops	98	98	99	104	102	104	100	97	98	99	103	102	103	100
Meat	*94	*96	*100	*105	*104	*99	...	*95	*96	*100	*104	*104	*99	...
Wine and hops	107	80	96	108	109	94	94	109	79	96	109	108	94	96
Coffee, tea, cocoa	86	88	116	84	126	89	107	88	90	111	90	120	92	106
<i>Raw materials</i>	92	95	99	103	111	103	94	92	94	99	103	111	101	91
Tobacco	99	98	96	100	106	109	...	99	98	96	100	106	109	...
Vegetable-oil materials	95	94	104	100	107	100	105	95	94	104	100	107	100	105
Textiles	96	100	95	103	106	104	104	97	101	94	103	106	103	104
Rubber	80	95	93	101	132	125	121	80	95	93	101	132	125	121
Wood-pulp	86	94	100	103	117	113	...	86	94	100	103	117	113	...
Fuels	93	93	102	102	110	102	93	93	93	102	102	110	101	92
Metals (smelter production)	88	91	99	106	115	95	72	88	91	99	106	116	95	71
Non-metallic minerals	87	93	101	107	112	109	...	87	93	101	107	112	109	...
Chemicals (fertilisers)	88	87	92	109	124	112	...	88	88	93	108	123	111	...
EUROPE (excluding U. S. S. R.) :														
<i>General Index</i>	95	89	100	104	113	104	99	95	89	100	104	112	103	98
<i>Crude foodstuffs</i>	98	92	97	103	110	105	103	98	92	97	104	110	104	103
Cereals	102	94	93	100	111	102	101	103	95	93	100	111	102	100
Cereals and other food crops	102	92	95	100	111	106	102	102	92	95	100	112	105	101
Meat	*91	*93	*101	*108	*108	*106	...	*91	*93	*101	*107	*108	*106	...
Wine and hops	110	79	97	106	108	91	93	112	78	97	107	107	90	95
<i>Raw materials</i>	90	84	105	104	117	103	92	90	84	105	104	117	102	91
Tobacco	100	98	96	89	118	117	...	100	98	96	89	118	117	...
Vegetable-oil materials	81	70	127	77	145	55	102	81	71	127	77	145	55	102
Textiles	87	89	99	108	117	112	104	88	89	99	107	117	111	102
Wood-pulp	87	92	101	103	118	116	...	87	92	101	103	118	116	...
Fuels	96	81	106	104	113	104	95	96	81	106	104	113	104	95
Metals (smelter production)	87	84	106	107	116	98	78	87	84	106	107	116	97	77
Non-metallic minerals	84	91	101	109	116	113	...	84	91	101	109	116	113	...
Chemicals (fertilisers)	85	86	97	105	126	115	...	86	87	97	104	125	112	...

* Partly based on estimates.

¹ The figures given in this Appendix correspond with those published in the *Statistical Year-Book of the League of Nations*, 1931/32, Table 100, except in a few instances where they have been revised according to more recent information.

Appendix III (continued).
INDICES OF PRODUCTION OF PRIMARY COMMODITIES, WEIGHTED BY 1925 AND 1930 VALUES.
Average Annual Production in 1925-1929=100.

Continents and Groups of Products	Weighted by 1925 Values							Weighted by 1930 Values						
	1925	1926	1927	1928	1929	1930	*1931	1925	1926	1927	1928	1929	1930	*1931
EUROPE (including U. S. S. R.):														
<i>General Index</i>	94	92	100	103	110	106	(101)	94	92	100	103	110	104	(100)
<i>Crude foodstuffs</i>	97	95	98	102	107	105	(100)	97	95	98	103	107	103	(100)
Cereals	101	100	95	98	106	108	...	101	100	95	98	106	107	...
Cereals and other food crops	100	97	96	99	107	110	...	100	97	96	99	107	108	...
Meat	*90	*93	*102	*108	*106	*98	...	*91	*93	*101	*108	*107	*98	...
Wine and hops	110	79	97	106	108	91	...	112	78	97	107	107	90	...
<i>Raw materials</i>	88	85	104	105	118	107	101	88	85	104	105	117	107	99
Tobacco	105	106	98	87	104	107	...	105	106	98	87	104	107	...
Vegetable-oil materials	85	75	120	84	138	70	...	84	75	119	84	137	72	...
Textiles	89	88	98	108	116	113	...	90	88	97	108	116	114	...
Wood-pulp	86	91	101	103	119	119	...	86	91	101	103	119	119	...
Fuels	93	82	106	105	115	110	106	93	82	106	105	114	109	104
Metals (smelter production)	85	84	106	108	117	102	83	85	84	106	108	117	101	83
Non-metallic minerals	82	90	101	110	118	119	...	82	90	101	110	118	119	...
Chemicals (fertilisers)	85	86	97	105	127	115	...	86	87	97	105	125	113	...
NORTH AMERICA: General Index.	96	100	98	104	102	93	89	96	100	98	103	102	93	88
<i>Crude foodstuffs</i>	97	98	102	108	96	93	94	98	98	101	106	96	92	94
Cereals	96	97	103	111	93	91	92	98	97	102	109	93	89	92
Cereals and other food crops	96	97	103	111	93	91	92	97	97	103	110	93	90	92
Meat	*98	*99	*99	*102	*101	*97	...	*99	*100	*99	*102	*101	*96	...
Wine and hops	90	99	98	104	109	77	85	88	97	96	106	113	84	90
<i>Raw materials</i>	94	102	95	100	108	94	84	94	102	95	101	108	93	81
Tobacco	101	95	90	102	112	120	119	101	95	90	102	112	120	119
Vegetable-oil materials	103	109	95	97	97	96	107	104	110	93	96	96	95	106
Textiles	101	113	87	98	102	97	117	102	114	86	97	101	96	116
Wood-pulp	86	96	99	103	116	107	88	86	96	99	103	116	107	88
Fuels	93	101	101	99	107	94	82	93	102	101	98	106	93	81
Metals (smelter production)	92	98	93	104	113	86	56	92	97	93	104	114	85	56
Non-metallic minerals	95	97	101	104	103	97	79	95	97	101	104	103	97	79
Chemicals (fertilisers)	85	94	97	107	116	111	...	85	95	97	107	116	114	...

* Partly based on estimates.

Appendix III (continued).
INDICES OF PRODUCTION OF PRIMARY COMMODITIES, WEIGHTED BY 1925 AND 1930 VALUES.
Average Annual Production in 1925-1929=100.

Continents and Groups of Products	Weighted by 1925 Values							Weighted by 1930 Values						
	1925	1926	1927	1928	1929	1930	*1931	1925	1926	1927	1928	1929	1930	*1931
LATIN AMERICA: General Index..	95	95	102	102	106	99	97	96	96	101	103	104	102	97
<i>Crude foodstuffs</i>	95	95	104	100	105	97	98	97	97	103	102	102	101	97
Cereals	94	98	105	114	89	106	97	95	98	104	112	90	108	98
Cereals and other food crops . .	96	97	100	111	96	98	93	96	98	101	110	95	103	96
Meat	*100	*99	*100	*99	*102	*102	...	*100	*100	*100	*99	*101	*101	...
Wine and hops	80	81	114	122	104	109	...	80	81	114	122	104	109	...
Coffee, tea, cocoa	83	83	126	70	137	82	111	85	84	125	73	134	83	110
<i>Raw materials</i>	93	95	96	108	109	105	...	92	93	95	109	111	105	...
Tobacco	87	86	108	112	107	104	...	87	86	108	112	107	104	...
Vegetable-oil materials	101	108	109	106	76	98	116	101	108	109	106	76	98	116
Textiles	96	103	98	102	102	100	...	96	103	97	101	102	100	...
Rubber	116	104	120	84	84	60	52	116	104	120	84	84	60	52
Fuels	87	86	91	111	126	122	108	87	86	91	110	125	122	108
Metals (smelter production) . .	83	91	100	109	117	101	91	81	89	99	110	120	101	92
Non-metallic minerals	62	78	95	120	145	142	...	62	78	95	120	145	142	...
Chemicals (fertilisers)	101	80	66	125	128	98	...	101	80	65	125	128	98	...
AFRICA: General Index	96	95	98	103	109	105	(103)	95	95	98	103	108	106	(104)
<i>Crude Foodstuffs</i>	95	94	101	102	108	104	(108)	95	95	101	103	107	105	(108)
Cereals	93	93	98	102	114	99	...	91	94	99	101	114	99	...
Cereals and other food crops . .	94	91	102	101	111	101	...	93	92	103	101	111	100	...
Meat	*96	*99	*103	*101	*101	*107	...	*96	*99	*103	*101	*101	*107	...
Wine and hops	102	78	77	124	119	125	142	102	78	77	124	119	125	142
Coffee, tea, cocoa	90	95	99	106	111	112	116	92	97	96	106	109	107	113
<i>Raw materials</i>	97	96	93	104	110	106	96	97	96	93	104	110	108	96
Tobacco	95	102	121	97	85	88	...	95	102	121	97	85	88	...
Vegetable-oil materials	98	96	92	103	111	108	...	98	96	92	103	111	108	...
Textiles	98	96	90	105	111	105	97	99	96	88	105	111	104	96
Rubber	122	122	122	78	56	44	33	122	122	122	78	56	44	33
Fuels	95	101	99	102	104	98	87	95	101	99	102	104	98	86
Metals (smelter production) . .	85	80	90	113	131	137	115	86	80	90	113	132	137	116
Non-metallic minerals	86	92	102	102	118	130	...	86	92	102	102	118	129	...
Chemicals (fertilisers)	88	93	112	104	103	126	...	87	93	113	104	104	127	...

* Partly based on estimates.

Appendix III (concluded).

INDICES OF PRODUCTION OF PRIMARY COMMODITIES, WEIGHTED BY 1925 AND 1930 VALUES.

Average Annual Production in 1925-1929=100.

Continents and Groups of Products	Weighted by 1925 Values							Weighted by 1930 Values						
	1925	1926	1927	1928	1929	1930	*1931	1925	1926	1927	1928	1929	1930	*1931
<i>ASIA : General Index</i>	95	97	99	102	106	109	(103)	97	97	99	102	105	108	(102)
<i>Crude foodstuffs</i>	98	98	99	101	104	107	(105)	98	98	99	101	104	107	(104)
Cereals	99	98	100	93	110	116	...	98	98	100	93	110	116	...
Cereals and other food crops	98	99	99	101	103	108	...	99	99	99	101	103	108	...
Meat	*96	*95	*97	*103	*110	*104	...	*95	*95	*97	*103	*110	*104	...
Wine and hops	83	101	108	105	102	101	...	78	105	107	108	102	99	...
Coffee, tea, cocoa	91	95	101	105	108	96	...	91	96	101	104	108	98	...
<i>Raw materials</i>	92	95	99	104	110	111	100	94	95	100	104	107	109	97
Tobacco	99	98	96	103	103	105	...	99	98	96	103	103	105	...
Vegetable-oil materials	95	94	103	106	102	112	102	95	94	103	106	102	112	101
Textiles	96	96	100	103	104	105	88	97	96	100	103	104	105	88
Rubber	78	94	92	102	135	129	125	78	94	92	102	135	129	125
Wood-pulp	78	94	102	107	120	121	...	78	94	102	107	120	122	...
Fuels	93	93	100	105	108	106	95	94	93	100	105	108	105	94
Metals (smelter production)	87	90	98	107	118	115	100	85	90	99	107	119	117	101
Non-metallic minerals	83	98	100	104	116	116	...	83	98	100	104	116	116	...
Chemicals (fertilisers)	80	91	99	115	116	119	...	81	91	99	114	114	117	...
<i>OCEANIA : General Index</i>	92	101	98	106	103	110	108	93	101	99	105	102	110	108
<i>Crude foodstuffs</i>	91	102	97	107	103	122	(118)	93	102	98	106	102	119	(117)
Cereals	84	116	91	116	94	150	124	84	115	91	115	94	149	124
Cereals and other food crops	88	106	95	112	99	137	121	87	109	94	113	98	140	121
Meat	*95	*98	*99	*102	*107	*109	...	*96	*98	*99	*102	*105	*107	...
Wine and hops	92	115	98	105	91	64	...	92	115	98	105	91	65	...
Coffee, tea, cocoa	71	79	120	110	121	138	...	75	84	120	102	120	131	...
<i>Raw materials</i>	93	100	99	105	103	97	98	93	100	100	105	102	97	95
Tobacco	91	91	100	100	100	100	...	91	91	100	100	100	100	...
Vegetable-oil materials	87	93	94	111	114	113	...	87	93	95	111	114	113	...
Textiles	92	101	98	106	103	98	103	92	101	98	106	103	98	103
Fuels	106	104	107	96	86	80	73	106	104	107	96	87	81	73
Metals (smelter production)	96	96	103	102	103	97	87	96	96	103	103	103	96	85
Non-metallic minerals	86	93	102	115	105	104	...	85	93	101	116	105	104	...
Chemicals (fertilisers)	89	89	99	110	114	108	...	88	88	99	109	113	108	...

* Partly based on estimates.

Appendix IV.

PERCENTAGE DISTRIBUTION OF AGGREGATE PRODUCTION OF PRIMARY COMMODITIES,
WEIGHTED BY 1925 AND 1930 VALUES, BY CONTINENTAL GROUPS.

World Totals = 100.

Groups of Products and Continents	Weighted by 1925 Values							Weighted by 1930 Values						
	Average 1925/29	1925	1926	1927	1928	1929	1930	Average 1925/29	1925	1926	1927	1928	1929	1930
TOTAL PRODUCTION :														
Europe (excluding U.S.S.R.)	27.8	27.8	25.8	27.9	27.9	29.4	28.3	30.0	29.9	27.9	30.2	30.2	31.8	30.6
Europe (including U.S.S.R.)	37.1	37.0	35.6	37.3	37.1	38.5	38.5	39.3	38.8	37.6	39.5	39.3	40.8	40.5
North America	29.7	29.9	31.0	29.4	29.9	28.4	27.2	31.1	31.4	32.5	30.8	31.2	29.9	28.5
Latin America	8.6	8.5	8.5	8.8	8.5	8.5	8.3	7.8	7.8	7.8	7.9	7.8	7.7	7.8
Africa	3.0	3.0	2.9	2.9	3.0	3.1	3.0	2.9	2.9	2.9	2.9	2.9	3.0	3.0
Asia	19.1	19.2	19.3	19.1	18.9	19.1	20.3	16.9	17.1	17.1	16.9	16.7	16.7	18.0
Oceania	2.5	2.4	2.7	2.5	2.6	2.4	2.7	2.0	2.0	2.1	2.0	2.1	1.9	2.2
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100
CRUDE FOODSTUFFS :														
Europe (excluding U.S.S.R.)	28.6	29.0	27.2	27.8	28.5	30.4	29.4	30.2	30.4	28.7	29.6	30.3	32.2	31.1
Europe (including U.S.S.R.)	41.0	41.2	40.5	40.3	40.7	42.3	42.3	42.5	42.4	41.7	41.9	42.3	44.1	43.5
North America	24.9	24.8	25.2	25.3	25.9	23.2	22.7	25.9	26.0	26.3	26.2	26.6	24.2	23.6
Latin America	10.5	10.3	10.3	10.9	10.2	10.6	9.9	9.4	9.4	9.5	9.7	9.3	9.3	9.4
Africa	2.8	2.8	2.8	2.9	2.8	3.0	2.9	2.9	2.9	2.9	3.0	2.9	3.0	3.0
Asia	18.7	18.9	19.0	18.6	18.3	18.8	19.7	17.4	17.5	17.6	17.3	17.0	17.5	18.3
Oceania	2.1	2.0	2.2	2.0	2.1	2.1	2.5	1.9	1.8	2.0	1.9	1.9	1.9	2.2
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Cereals :														
Europe (excluding U.S.S.R.)	29.5	30.8	28.2	27.8	28.4	32.5	29.3	29.2	30.3	28.0	27.4	28.4	32.2	29.3
Europe (including U.S.S.R.)	47.4	48.7	47.9	45.6	45.0	49.7	49.7	47.3	48.4	47.8	45.6	45.0	49.7	49.7
North America	33.9	33.2	33.4	35.4	36.2	31.3	29.9	35.1	34.7	34.6	36.5	37.4	32.5	30.8
Latin America	6.8	6.5	6.7	7.2	7.5	6.0	7.0	6.9	6.6	6.8	7.2	7.4	6.1	7.3
Africa	2.8	2.7	2.7	2.8	2.8	3.2	2.7	2.7	2.5	2.6	2.7	2.7	3.1	2.7
Asia	7.6	7.6	7.6	7.7	6.9	8.4	8.6	6.7	6.7	6.7	6.8	6.1	7.4	7.7
Oceania	1.5	1.3	1.7	1.3	1.6	1.4	2.1	1.3	1.1	1.5	1.2	1.4	1.2	1.8
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Appendix IV (continued).

PERCENTAGE DISTRIBUTION OF AGGREGATE PRODUCTION OF PRIMARY COMMODITIES,
WEIGHTED BY 1925 AND 1930 VALUES, BY CONTINENTAL GROUPS.

World Totals = 100.

Groups of Products and Continents	Weighted by 1925 Values							Weighted by 1930 Values						
	Average 1925/29	1925	1926	1927	1928	1929	1930	Average 1925/29	1925	1926	1927	1928	1929	1930
<i>Cereals and other food crops :</i>														
Europe (excluding U.S.S.R.)	26.0	27.0	24.5	24.9	25.1	28.4	26.3	26.3	27.2	24.8	25.2	25.6	28.8	26.6
Europe (including U.S.S.R.)	39.9	40.9	39.8	38.7	38.3	41.9	42.0	40.7	41.4	40.5	39.6	39.0	42.8	42.6
North America	23.7	23.1	23.6	24.7	25.4	21.7	20.7	24.8	24.4	24.7	25.7	26.4	22.7	21.5
Latin America	7.7	7.5	7.7	7.8	8.3	7.2	7.3	6.4	6.2	6.4	6.5	6.9	6.0	6.4
Africa	2.5	2.4	2.3	2.6	2.4	2.7	2.4	2.3	2.2	2.2	2.4	2.3	2.5	2.3
Asia	24.7	24.7	25.0	24.8	24.0	25.0	25.6	24.7	24.8	24.9	24.7	24.2	24.9	25.7
Oceania	1.5	1.4	1.6	1.4	1.6	1.5	2.0	1.1	1.0	1.3	1.1	1.2	1.1	1.5
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<i>Meat :</i>														
Europe (excluding U.S.S.R.)	34.7	33.4	33.6	34.9	35.7	35.8	37.1	34.7	33.2	33.5	34.9	35.8	36.0	37.1
Europe (including U.S.S.R.)	45.6	43.6	44.1	46.2	47.2	46.4	45.0	45.0	42.9	43.5	45.5	46.6	46.0	44.6
North America	30.7	31.9	31.7	30.3	30.0	29.8	30.0	30.6	31.8	31.7	30.3	29.8	29.6	29.9
Latin America	12.1	12.8	12.5	12.0	11.5	11.9	12.5	12.7	13.4	13.1	12.6	12.1	12.4	13.0
Africa	3.1	3.1	3.2	3.1	3.0	3.0	3.3	3.2	3.2	3.2	3.2	3.1	3.1	3.4
Asia	4.9	5.0	4.8	4.8	4.8	5.2	5.2	5.2	5.3	5.1	5.1	5.2	5.5	5.5
Oceania	3.6	3.6	3.7	3.6	3.5	3.7	4.0	3.3	3.4	3.4	3.3	3.2	3.4	3.6
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<i>Wine and hops :</i>														
Europe (excluding U.S.S.R.)	84.2	86.4	83.2	84.4	82.6	83.8	81.8	85.1	87.5	84.6	85.4	83.4	84.6	82.0
Europe (including U.S.S.R.)	84.2	86.4	83.2	84.4	82.6	83.8	81.8	85.1	87.5	84.6	85.4	83.4	84.6	82.0
North America	2.8	2.4	3.5	2.8	2.7	2.8	2.3	0.9	0.7	1.1	0.9	0.9	0.9	0.8
Latin America	5.6	4.2	5.7	6.6	6.3	5.3	6.4	6.1	4.5	6.2	7.2	6.8	5.9	7.0
Africa	6.6	6.3	6.5	5.3	7.6	7.3	8.8	7.2	6.7	7.1	5.7	8.2	8.0	9.6
Asia	0.4	0.3	0.5	0.5	0.4	0.4	0.4	0.2	0.2	0.3	0.3	0.2	0.2	0.3
Oceania	0.4	0.4	0.6	0.4	0.4	0.4	0.3	0.5	0.4	0.7	0.5	0.5	0.4	0.3
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Appendix IV (continued).

PERCENTAGE DISTRIBUTION OF AGGREGATE PRODUCTION OF PRIMARY COMMODITIES,
WEIGHTED BY 1925 AND 1930 VALUES, BY CONTINENTAL GROUPS.

World Totals = 100.

Groups of Products and Continents	Weighted by 1925 Values							Weighted by 1930 Values						
	Average 1925/29	1925	1926	1927	1928	1929	1930	Average 1925/29	1925	1926	1927	1928	1929	1930
<i>Coffee, tea, cocoa:</i>														
Latin America	60.2	58.3	57.0	65.4	50.4	65.6	55.8	45.0	43.3	41.7	50.6	36.3	50.3	40.7
Africa	7.4	7.7	8.0	6.3	9.3	6.5	9.3	11.2	11.6	12.0	9.7	13.1	10.1	12.9
Asia	32.2	33.9	34.8	28.1	40.1	27.7	34.6	43.6	45.0	46.2	39.5	50.4	39.4	46.2
Oceania	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.2
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100
RAW MATERIALS:														
Europe (excluding U.S.S.R.) . .	26.6	25.9	23.6	28.1	26.8	27.9	26.6	29.6	28.9	26.5	31.3	29.9	31.2	29.9
Europe (including U.S.S.R.) . .	31.1	29.9	27.8	32.7	31.7	32.9	32.5	33.9	32.5	30.4	35.6	34.4	35.8	35.6
North America	37.3	38.3	40.3	36.0	36.2	36.1	34.1	39.9	40.8	43.2	38.4	38.9	38.8	36.7
Latin America	5.6	5.6	5.6	5.4	5.9	5.5	5.7	5.1	5.1	5.1	4.9	5.4	5.1	5.3
Africa	3.2	3.4	3.2	3.0	3.2	3.0	3.3	2.8	3.0	2.9	2.7	2.9	2.8	3.0
Asia	19.6	19.6	19.7	19.7	19.8	19.5	21.4	16.1	16.4	16.1	16.2	16.2	15.5	17.3
Oceania	3.2	3.2	3.4	3.2	3.2	3.0	3.0	2.2	2.2	2.3	2.2	2.2	2.0	2.1
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<i>Tobacco:</i>														
Europe (excluding U.S.S.R.) . .	11.8	11.8	11.8	11.8	10.5	13.1	12.7	11.8	11.8	11.8	11.8	10.5	13.1	12.7
Europe (including U.S.S.R.) . .	19.4	20.5	20.9	19.8	16.9	19.0	19.0	19.4	20.5	20.9	19.8	16.9	19.0	19.0
North America	29.1	29.5	28.3	27.2	29.4	30.7	32.0	29.1	29.5	28.3	27.2	29.4	30.7	32.0
Latin America	8.8	7.7	7.8	9.8	9.9	8.9	8.4	8.8	7.7	7.8	9.8	9.9	8.9	8.4
Africa	2.6	2.5	2.7	3.3	2.5	2.1	2.1	2.6	2.5	2.7	3.3	2.5	2.1	2.1
Asia	40.0	39.7	40.2	39.8	41.2	39.2	38.4	40.0	39.7	40.2	39.8	41.2	39.2	38.4
Oceania	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Appendix IV (continued).

PERCENTAGE DISTRIBUTION OF AGGREGATE PRODUCTION OF PRIMARY COMMODITIES,
WEIGHTED BY 1925 AND 1930 VALUES, BY CONTINENTAL GROUPS.

World Totals = 100.

Groups of Products and Continents	Weighted by 1925 Values							Weighted by 1930 Values						
	Average 1925/29	1925	1926	1927	1928	1929	1930	Average 1925/29	1925	1926	1927	1928	1929	1930
<i>Vegetable-oil materials :</i>														
Europe (excluding U.S.S.R.) . . .	14.0	12.0	10.5	17.2	10.7	19.1	7.7	13.8	11.7	10.3	16.9	10.6	18.8	7.6
Europe (including U.S.S.R.) . . .	18.8	16.7	15.0	21.5	15.7	24.2	13.2	18.8	16.6	15.0	21.5	15.8	24.2	13.5
North America	13.7	15.0	15.9	12.4	13.3	12.4	13.1	15.8	17.2	18.4	14.1	15.2	14.3	14.9
Latin America	8.6	9.1	9.8	8.9	9.0	6.1	8.4	9.0	9.5	10.3	9.4	9.5	6.4	8.8
Africa	10.7	11.2	10.9	9.5	11.0	11.1	11.5	10.9	11.2	11.1	9.6	11.2	11.4	11.8
Asia	47.2	47.1	47.4	46.8	49.9	45.2	52.7	44.7	44.7	44.4	44.6	47.4	42.8	50.1
Oceania	1.0	0.9	1.0	0.9	1.1	1.0	1.1	0.8	0.8	0.8	0.8	0.9	0.9	0.9
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<i>Textiles :</i>														
Europe (excluding U.S.S.R.) . . .	12.7	11.6	11.3	13.3	13.3	14.0	13.7	11.6	10.5	10.3	12.1	12.1	12.8	12.5
Europe (including U.S.S.R.) . . .	21.1	19.6	18.6	21.7	22.2	23.0	23.0	19.8	18.4	17.4	20.4	20.9	21.8	22.0
North America	28.9	30.4	32.5	26.4	27.4	27.7	27.2	31.2	32.8	35.2	28.6	29.6	29.8	29.1
Latin America	6.2	6.2	6.4	6.4	6.1	6.0	6.0	5.7	5.7	5.8	5.9	5.6	5.5	5.5
Africa	6.0	6.2	5.8	5.7	6.1	6.3	6.1	6.0	6.1	5.7	5.6	6.1	6.3	6.0
Asia	28.6	28.8	27.5	30.3	28.7	28.0	29.0	29.7	29.8	28.3	31.6	29.9	29.1	30.2
Oceania	9.2	8.8	9.2	9.5	9.5	9.0	8.7	7.6	7.2	7.6	7.9	7.9	7.5	7.2
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<i>Rubber :</i>														
Latin America	3.8	5.5	4.1	4.9	3.1	2.4	1.8	3.8	5.5	4.1	4.9	3.1	2.4	1.8
Africa	1.3	2.1	1.8	1.8	1.1	0.6	0.5	1.3	2.1	1.8	1.8	1.1	0.6	0.5
Asia	94.9	92.4	94.1	93.3	95.8	97.0	97.7	94.9	92.4	94.1	93.3	95.8	97.0	97.7
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Appendix IV (continued).

PERCENTAGE DISTRIBUTION OF AGGREGATE PRODUCTION OF PRIMARY COMMODITIES,
WEIGHTED BY 1925 AND 1930 VALUES, BY CONTINENTAL GROUPS.

World Totals = 100.

Groups of Products and Continents	Weighted by 1925 Values							Weighted by 1930 Values						
	Average 1925/29	1925	1926	1927	1928	1929	1930	Average 1925/29	1925	1926	1927	1928	1929	1930
<i>Wood-pulp:</i>														
Europe (excluding U.S.S.R.) . . .	48.1	48.8	47.1	48.5	48.1	48.3	49.5	48.3	48.9	47.2	48.6	48.3	48.4	49.7
Europe (including U.S.S.R.) . . .	49.2	49.3	47.8	49.5	49.2	49.7	51.6	49.3	49.5	48.0	49.7	49.3	49.8	51.7
North America	47.1	47.3	48.4	46.7	46.9	46.5	44.4	47.0	47.1	48.3	46.5	46.8	46.4	44.3
Latin America	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Asia	3.5	3.2	3.6	3.6	3.7	3.6	3.8	3.5	3.2	3.5	3.6	3.7	3.6	3.8
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<i>Fuels:</i>														
Europe (excluding U.S.S.R.) . . .	32.6	33.7	28.6	33.8	33.3	33.3	33.4	34.5	35.6	30.1	35.7	35.3	35.4	35.6
Europe (including U.S.S.R.) . . .	36.0	36.0	31.7	37.2	37.1	37.3	38.8	37.7	37.8	33.1	39.0	38.9	39.2	40.7
North America	50.9	51.0	55.4	50.3	49.2	49.3	47.1	49.8	49.8	54.5	49.0	48.1	48.0	45.9
Latin America	4.8	4.5	4.4	4.3	5.2	5.4	5.7	4.1	3.8	3.8	3.7	4.4	4.7	4.9
Africa	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.8	0.8
Asia	6.7	6.8	6.7	6.6	6.9	6.6	7.0	6.7	6.7	6.7	6.6	6.9	6.6	7.0
Oceania	0.8	0.9	0.9	0.8	0.8	0.6	0.6	0.9	1.0	1.0	0.9	0.8	0.7	0.7
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<i>Metals (smelter production):</i>														
Europe (excluding U.S.S.R.) . . .	37.8	37.1	34.9	40.5	38.3	38.0	38.9	38.4	37.4	35.4	41.3	38.9	38.4	39.4
Europe (including U.S.S.R.) . . .	40.5	38.9	37.4	43.2	41.2	41.1	43.3	41.2	39.6	38.1	44.2	41.9	41.8	44.2
North America	47.8	49.7	51.0	45.0	46.8	47.0	43.1	48.7	50.7	52.0	45.8	47.8	47.9	44.1
Latin America	4.4	4.1	4.4	4.4	4.5	4.5	4.7	3.7	3.4	3.7	3.7	3.9	3.8	4.0
Africa	0.7	0.7	0.6	0.7	0.8	0.8	1.1	0.8	0.7	0.7	0.7	0.8	0.9	1.1
Asia	5.3	5.2	5.2	5.3	5.4	5.4	6.4	4.5	4.4	4.4	4.5	4.5	4.6	5.5
Oceania	1.3	1.4	1.4	1.4	1.3	1.2	1.4	1.1	1.2	1.1	1.1	1.1	1.0	1.1
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Appendix IV (concluded).

PERCENTAGE DISTRIBUTION OF AGGREGATE PRODUCTION OF PRIMARY COMMODITIES,
WEIGHTED BY 1925 AND 1930 VALUES, BY CONTINENTAL GROUPS.

World Totals = 100.

Groups of Products and Continents	Weighted by 1925 Values							Weighted by 1930 Values						
	Average 1925/29	1925	1926	1927	1928	1929	1930	Average 1925/29	1925	1926	1927	1928	1929	1930
<i>Non-metallic minerals:</i>														
Europe (excluding U.S.S.R.) . .	41.3	39.8	40.2	41.2	42.0	43.0	42.9	41.2	39.7	40.0	41.1	41.9	42.8	42.8
Europe (including U.S.S.R.) . .	45.1	42.2	43.4	45.1	46.3	47.6	49.0	45.0	42.2	43.2	44.9	46.1	47.5	48.9
North America	42.9	46.5	44.3	43.0	41.8	39.7	38.0	43.0	46.6	44.5	43.2	41.9	39.9	38.1
Latin America	0.9	0.7	0.8	0.9	1.1	1.3	1.2	0.9	0.7	0.8	0.9	1.1	1.2	1.2
Africa	1.0	1.0	1.0	1.0	0.9	1.0	1.2	1.0	1.0	1.0	1.0	1.0	1.1	1.2
Asia	9.0	8.6	9.5	8.9	8.8	9.4	9.6	9.0	8.5	9.4	8.9	8.7	9.3	9.6
Oceania	1.1	1.0	1.0	1.1	1.1	1.0	1.0	1.1	1.0	1.1	1.1	1.2	1.0	1.0
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100
<i>Chemicals (fertilisers):</i>														
Europe (excluding U.S.S.R.) . .	59.9	58.1	59.5	63.2	57.5	60.9	61.3	60.0	59.0	59.6	62.6	57.9	61.1	60.5
Europe (including U.S.S.R.) . .	60.1	58.2	59.8	63.4	57.8	61.3	61.9	60.3	59.1	59.8	62.8	58.2	61.5	61.1
North America	15.5	15.1	16.8	16.3	15.3	14.5	15.4	17.3	16.8	18.7	18.0	17.1	16.3	17.7
Latin America	17.0	19.6	15.7	12.1	19.5	17.6	14.9	14.1	16.2	12.9	9.9	16.3	14.8	12.4
Africa	2.1	2.1	2.2	2.5	2.0	1.7	2.3	2.7	2.6	2.8	3.3	2.6	2.2	3.0
Asia	3.6	3.3	3.7	3.8	3.7	3.3	3.8	3.5	3.2	3.7	3.8	3.7	3.3	3.7
Oceania	1.7	1.7	1.8	1.9	1.7	1.6	1.7	2.1	2.1	2.1	2.2	2.1	1.9	2.1
World	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Appendix V.

PERCENTAGE DISTRIBUTION OF AGGREGATE PRODUCTION OF PRIMARY COMMODITIES,
WEIGHTED BY 1925 AND 1930 VALUES, BY GROUPS OF PRODUCTS.

Total Production of Each Continent = 100.

Continents and Groups of Products	Weighted by 1925 Values							Weighted by 1930 Values						
	Average 1925/29	1925	1926	1927	1928	1929	1930	Average 1925/29	1925	1926	1927	1928	1929	1930
WORLD :														
<i>Crude foodstuffs</i>	61.0	62.2	61.5	61.3	61.0	59.2	60.9	62.6	63.8	63.2	62.7	62.6	60.8	62.5
Cereals	27.1	28.1	28.0	27.0	27.2	25.7	27.3	25.2	26.1	26.0	25.0	25.0	23.9	25.2
Food crops other than cereals	13.2	13.6	13.1	13.2	13.2	12.9	13.8	11.8	12.2	11.8	11.8	11.8	11.6	12.5
Meat	18.2	18.1	18.2	18.4	18.4	17.8	17.6	22.9	22.7	23.0	23.1	23.1	22.4	22.3
Wine and hops	0.8	0.9	0.6	0.7	0.8	0.8	0.7	1.5	1.7	1.2	1.4	1.6	1.5	1.4
Coffee, tea, cocoa	1.7	1.5	1.6	2.0	1.4	2.0	1.5	1.2	1.1	1.2	1.4	1.1	1.4	1.1
<i>Raw Materials</i>	39.0	37.8	38.5	38.7	39.0	40.8	39.1	37.4	36.2	36.8	37.3	37.4	39.2	37.5
Tobacco	1.0	1.1	1.0	1.0	1.0	1.0	1.1	1.7	1.8	1.7	1.7	1.6	1.7	1.8
Vegetable-oil materials	3.4	3.4	3.3	3.6	3.3	3.4	3.3	3.3	3.3	3.3	3.4	3.2	3.3	3.3
Textiles	10.6	10.7	11.1	10.1	10.6	10.6	10.7	7.2	7.2	7.6	6.8	7.1	7.2	7.3
Rubber	1.3	1.1	1.3	1.2	1.3	1.6	1.6	0.3	0.3	0.3	0.3	0.3	0.4	0.4
Wood-pulp	1.0	0.9	1.0	1.0	1.0	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.2	1.2
Fuels	10.8	10.5	10.4	11.0	10.6	11.2	10.7	11.3	11.0	11.0	11.6	11.2	11.7	11.3
Metals (smelter production)	8.4	7.8	8.0	8.3	8.6	9.1	7.8	9.5	8.8	9.0	9.4	9.7	10.3	8.9
Non-metallic minerals	1.4	1.2	1.3	1.4	1.4	1.4	1.5	1.5	1.4	1.5	1.6	1.6	1.7	1.7
Chemicals (fertilisers)	1.1	1.1	1.1	1.1	1.2	1.4	1.3	1.5	1.4	1.4	1.4	1.6	1.7	1.6
Total Production.	100	100	100	100	100	100	100	100	100	100	100	100	100	100
EUROPE (excluding U. S. S. R.):														
<i>Crude foodstuffs</i>	62.7	64.9	64.7	61.0	62.5	61.2	63.2	63.0	65.0	65.0	61.3	62.9	61.6	63.5
Cereals	28.9	31.1	30.5	26.9	27.8	28.4	28.3	24.5	26.5	26.1	22.7	23.6	24.2	24.2
Food crops other than cereals	8.8	9.3	8.4	8.9	8.7	8.9	9.9	7.9	8.3	7.5	8.0	7.7	8.0	8.7
Meat	22.7	21.8	23.8	22.9	23.6	21.7	23.0	26.4	25.3	27.7	26.6	27.3	25.4	27.0
Wine and hops	2.3	2.7	2.0	2.3	2.4	2.2	2.0	4.2	4.9	3.7	4.0	4.3	4.0	3.6
<i>Raw materials</i>	37.3	35.1	35.3	39.0	37.5	38.8	36.8	37.0	35.0	35.0	38.7	37.1	38.4	36.5
Tobacco	0.4	0.5	0.5	0.4	0.4	0.5	0.5	0.7	0.7	0.7	0.6	0.6	0.7	0.7
Vegetable-oil materials	1.7	1.5	1.4	2.2	1.3	2.2	0.9	1.5	1.3	1.2	1.9	1.1	2.0	0.8
Textiles	4.9	4.5	4.8	4.8	5.0	5.1	5.2	2.8	2.6	2.8	2.7	2.9	2.9	3.0
Wood-pulp	1.7	1.5	1.7	1.7	1.7	1.7	1.9	1.7	1.6	1.8	1.7	1.7	1.8	1.9
Fuels	12.7	12.7	11.6	13.4	12.7	12.7	12.7	13.0	13.1	11.9	13.8	13.0	13.0	13.1
Metals (smelter production)	11.4	10.4	10.8	12.1	11.8	11.7	10.6	12.2	11.1	11.5	12.9	12.5	12.5	11.4
Non-metallic minerals	2.0	1.8	2.1	2.0	2.1	2.1	2.2	2.2	1.9	2.2	2.2	2.3	2.2	2.4
Chemicals (fertilisers)	2.5	2.2	2.4	2.4	2.5	2.8	2.8	2.9	2.7	2.9	2.9	3.0	3.3	3.2
Total Production.	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Appendix V (continued).

PERCENTAGE DISTRIBUTION OF AGGREGATE PRODUCTION OF PRIMARY COMMODITIES,
WEIGHTED BY 1925 AND 1930 VALUES, BY GROUPS OF PRODUCTS.

Total Production of Each Continent = 100.

Continents and Groups of Products	Weighted by 1925 Values							Weighted by 1930 Values						
	Average 1925/29	1925	1926	1927	1928	1929	1930	Average 1925/29	1925	1926	1927	1928	1929	1930
EUROPE (including U.S.S.R.):														
<i>Crude foodstuffs</i>	67.4	69.5	69.9	66.1	66.8	65.2	67.0	67.7	69.7	70.1	66.4	67.2	65.6	67.1
Cereals	34.7	37.1	37.5	33.0	33.0	33.2	35.4	30.3	32.5	33.1	28.8	28.6	29.1	30.9
Food crops other than cereals	8.7	9.0	8.3	8.7	8.7	8.8	9.6	8.0	8.3	7.7	8.0	7.9	8.1	8.8
Meat	22.3	21.4	22.6	22.7	23.3	21.5	20.5	26.2	25.1	26.6	26.5	27.4	25.3	24.5
Wine and hops	1.7	2.0	1.5	1.7	1.8	1.7	1.5	3.2	3.8	2.7	3.1	3.3	3.1	2.9
<i>Raw materials</i>	32.6	30.5	30.1	33.9	33.2	34.8	33.0	32.3	30.3	29.9	33.6	32.8	34.4	32.9
Tobacco	0.5	0.6	0.6	0.5	0.4	0.5	0.5	0.8	0.9	1.0	0.8	0.7	0.8	0.9
Vegetable-oil materials	1.7	1.5	1.4	2.1	1.4	2.1	1.2	1.6	1.4	1.3	1.9	1.3	2.0	1.1
Textiles	6.0	5.7	5.8	5.9	6.3	6.3	6.5	3.6	3.4	3.5	3.5	3.8	3.8	4.0
Wood-pulp	1.3	1.2	1.3	1.3	1.3	1.4	1.4	1.3	1.2	1.3	1.3	1.3	1.4	1.5
Fuels	10.4	10.3	9.3	11.0	10.6	10.9	10.8	10.9	10.7	9.7	11.5	11.1	11.3	11.3
Metals (smelter production)	9.1	8.1	8.3	9.6	9.5	9.7	8.8	10.0	9.0	9.1	10.6	10.4	10.6	9.7
Non-metallic minerals	1.7	1.4	1.6	1.7	1.8	1.8	1.8	1.8	1.6	1.8	1.8	1.9	1.9	2.0
Chemicals (fertilisers)	1.9	1.7	1.8	1.8	1.9	2.1	2.0	2.3	2.1	2.2	2.2	2.3	2.6	2.4
Total Production.	100	100	100	100	100	100	100	100	100	100	100	100	100	100
NORTH AMERICA :														
<i>Crude foodstuffs</i>	51.1	51.6	50.0	52.6	52.8	48.3	50.9	52.0	52.9	51.1	53.4	53.4	49.2	51.8
Cereals	31.0	31.2	30.2	32.4	33.0	28.3	30.1	28.4	28.8	27.7	29.6	30.1	26.0	27.4
Food crops other than cereals	1.2	1.1	1.1	1.3	1.3	1.2	1.3	1.1	1.0	1.0	1.1	1.2	1.0	1.1
Meat	18.8	19.2	18.6	18.8	18.4	18.7	19.4	22.5	23.1	22.4	22.7	22.1	22.2	23.3
Wine and hops	0.1	0.1	0.1	0.1	0.1	0.1	0.1	—	—	—	—	—	—	—
<i>Raw materials</i>	48.9	48.4	50.0	47.4	47.2	51.7	49.1	48.0	47.1	48.9	46.6	46.6	50.8	48.2
Tobacco	1.0	1.1	0.9	0.9	1.0	1.1	1.3	1.6	1.7	1.5	1.5	1.5	1.7	2.1
Vegetable-oil materials	1.6	1.7	1.7	1.5	1.4	1.5	1.6	1.7	1.8	1.8	1.6	1.5	1.6	1.7
Textiles	10.3	10.9	11.6	9.1	9.7	10.4	10.8	7.2	7.6	8.2	6.3	6.8	7.2	7.4
Wood-pulp	1.5	1.4	1.5	1.5	1.5	1.7	1.8	1.6	1.4	1.5	1.6	1.6	1.8	1.8
Fuels	18.5	17.9	18.7	19.0	17.6	19.4	18.6	18.1	17.5	18.5	18.5	17.2	18.8	18.2
Metals (smelter production)	13.4	13.0	13.1	12.8	13.4	15.0	12.3	14.8	14.2	14.5	14.1	14.9	16.6	13.7
Non-metallic minerals	2.0	1.9	1.9	2.0	2.0	1.9	2.0	2.2	2.2	2.1	2.2	2.2	2.2	2.3
Chemicals (fertilisers)	0.6	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.7	0.8	0.8	0.9	0.9	1.0
Total Production.	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Appendix V (continued).

PERCENTAGE DISTRIBUTION OF AGGREGATE PRODUCTION OF PRIMARY COMMODITIES,
WEIGHTED BY 1925 AND 1930 VALUES, BY GROUPS OF PRODUCTS.

Total Production of Each Continent = 100.

Continents and Groups of Products	Weighted by 1925 Values							Weighted by 1930 Values						
	Average 1925/29	1925	1926	1927	1928	1929	1930	Average 1925/29	1925	1926	1927	1928	1929	1930
LATIN AMERICA :														
<i>Crude foodstuffs</i>	74.5	75.0	74.6	76.1	73.2	73.7	73.1	75.5	76.5	76.3	76.9	74.2	74.0	74.7
Cereals	21.4	21.4	22.0	22.0	23.9	18.0	22.9	22.1	22.1	22.6	22.7	23.8	19.2	23.4
Food crops other than cereals	14.9	15.6	14.9	13.6	15.4	14.8	13.1	8.1	8.3	8.1	7.6	8.4	8.3	7.3
Meat	25.7	27.0	26.8	25.0	25.0	24.8	26.5	37.2	38.9	38.5	36.6	35.7	36.3	37.0
Wine and hops	0.5	0.4	0.4	0.6	0.6	0.5	0.6	1.1	1.0	1.0	1.3	1.4	1.1	1.2
Coffee, tea, cocoa	12.0	10.6	10.5	14.9	8.3	15.6	10.0	7.0	6.2	6.1	8.7	4.9	9.1	5.8
<i>Raw materials</i>	25.5	25.0	25.4	23.9	26.8	26.3	26.9	24.5	23.5	23.7	23.1	25.8	26.0	25.3
Tobacco	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.9	1.8	1.7	2.1	2.1	2.0	2.0
Vegetable-oil materials	3.4	3.6	3.9	3.6	3.5	2.4	3.3	3.8	4.0	4.3	4.1	3.9	2.8	3.6
Textiles	7.7	7.8	8.3	7.4	7.6	7.4	7.8	5.3	5.3	5.6	5.1	5.1	5.1	5.1
Rubber	0.6	0.7	0.7	0.7	0.5	0.5	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1
Fuels	6.0	5.5	5.4	5.3	6.5	7.2	7.4	5.9	5.4	5.3	5.3	6.4	7.2	7.1
Metals (smelter production)	4.3	3.8	4.1	4.2	4.6	4.7	4.4	4.5	3.9	4.2	4.4	4.8	5.2	4.5
Non-metallic minerals	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.3	0.3
Chemicals (fertilisers)	2.3	2.5	1.9	1.5	2.8	2.8	2.3	2.7	2.8	2.2	1.7	3.2	3.3	2.6
Total Production	100	100	100	100	100	100	100	100	100	100	100	100	100	100
AFRICA :														
<i>Crude foodstuffs</i>	58.4	57.8	57.9	60.5	58.1	57.9	58.0	63.3	62.8	63.1	65.2	63.0	62.6	62.7
Cereals	25.9	25.1	25.5	26.1	25.6	27.2	24.3	23.8	22.8	23.7	24.0	23.4	25.1	22.4
Food crops other than cereals	7.7	8.1	7.0	9.1	7.6	7.1	8.0	6.1	6.4	5.5	7.6	5.8	5.5	6.0
Meat	18.8	18.8	19.7	19.7	18.4	17.4	19.2	25.0	25.2	26.1	26.1	24.5	23.3	25.2
Wine and hops	1.7	1.8	1.4	1.3	2.1	1.9	2.0	3.7	3.9	3.0	2.9	4.4	4.0	4.3
Coffee, tea, cocoa	4.3	4.0	4.3	4.3	4.4	4.3	4.5	4.7	4.5	4.8	4.6	4.9	4.7	4.8
<i>Raw materials</i>	41.6	42.2	42.1	39.5	41.9	42.1	42.0	36.7	37.2	36.9	34.8	37.0	37.4	37.3
Tobacco	0.9	0.9	0.9	1.1	0.8	0.7	0.7	1.5	1.5	1.7	1.9	1.4	1.2	1.3
Vegetable-oil materials	12.2	12.6	12.4	11.5	12.2	12.4	12.5	12.4	12.9	12.6	11.6	12.4	12.8	12.7
Textiles	21.6	22.1	21.9	19.8	22.0	22.1	21.5	14.8	15.3	15.0	13.3	15.1	15.2	14.6
Rubber	0.6	0.8	0.8	0.8	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1
Fuels	2.9	2.9	3.1	3.0	2.9	2.8	2.7	3.3	3.3	3.5	3.3	3.3	3.2	3.1
Metals (smelter production)	2.1	1.8	1.8	1.9	2.3	2.5	2.7	2.5	2.3	2.1	2.3	2.7	3.0	3.2
Non-metallic minerals	0.5	0.4	0.4	0.5	0.4	0.5	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.7
Chemicals (fertilisers)	0.8	0.7	0.8	0.9	0.8	0.8	1.0	1.4	1.2	1.3	1.6	1.4	1.3	1.6
Total Production	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Appendix V (concluded).

PERCENTAGE DISTRIBUTION OF AGGREGATE PRODUCTION OF PRIMARY COMMODITIES,
WEIGHTED BY 1925 AND 1930 VALUES, BY GROUPS OF PRODUCTS.

Total Production of Each Continent = 100.

Continents and Groups of Products	Weighted by 1925 Values							Weighted by 1930 Values						
	Average 1925/29	1925	1926	1927	1928	1929	1930	Average 1925/29	1925	1926	1927	1928	1929	1930
ASIA :														
<i>Crude foodstuffs</i>	59.8	61.3	60.6	59.9	59.1	58.4	59.0	64.4	65.4	65.2	64.1	63.7	63.7	63.9
Cereals	10.8	11.2	11.0	10.9	9.9	11.3	11.6	10.0	10.2	10.2	10.1	9.2	10.5	10.8
Food crops other than cereals	41.4	42.6	42.2	41.4	41.5	39.4	40.4	44.1	45.2	45.0	43.9	44.2	42.4	43.4
Meat	4.7	4.7	4.6	4.6	4.7	4.8	4.5	7.1	7.0	6.9	6.9	7.1	7.5	6.8
Coffee, tea, cocoa	2.9	2.8	2.8	3.0	3.0	2.9	2.5	3.2	3.0	3.1	3.2	3.2	3.3	2.9
<i>Raw materials</i>	40.2	38.7	39.4	40.1	40.9	41.6	41.0	35.6	34.6	34.8	35.9	36.3	36.3	36.1
Tobacco	2.1	2.2	2.2	2.0	2.2	2.1	2.0	4.0	4.1	4.1	3.9	4.1	4.0	3.9
Vegetable-oil materials	8.4	8.3	8.2	8.7	8.7	8.0	8.6	8.8	8.6	8.4	9.1	9.0	8.5	9.1
Textiles	16.0	16.1	15.8	16.1	16.1	15.6	15.4	12.7	12.7	12.5	12.8	12.8	12.5	12.3
Rubber	6.6	5.3	6.4	6.1	6.5	8.4	7.8	1.8	1.5	1.8	1.7	1.8	2.3	2.2
Wood-pulp	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
Fuels	3.8	3.7	3.6	3.8	3.9	3.8	3.7	4.5	4.3	4.3	4.6	4.6	4.6	4.4
Metals (smelter production)	2.3	2.1	2.2	2.3	2.4	2.6	2.4	2.5	2.2	2.3	2.5	2.6	2.9	2.7
Non-metallic minerals	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.7	0.9	0.8	0.9	0.9	0.9
Chemicals (fertilisers)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total Production.	100	100	100	100	100	100	100	100	100	100	100	100	100	100
OCEANIA :														
<i>Crude foodstuffs</i>	50.6	50.2	51.0	50.0	51.0	50.6	56.3	59.1	59.0	59.6	58.5	59.3	59.1	64.0
Cereals	15.9	14.5	18.2	14.7	17.4	14.6	21.8	15.9	14.4	18.1	14.7	17.4	14.6	21.6
Food crops other than cereals	8.3	8.6	7.2	8.7	8.2	8.6	8.3	4.9	5.0	4.3	5.2	4.9	5.2	5.0
Meat	26.2	26.9	25.3	26.4	25.2	27.2	26.0	37.9	39.2	36.7	38.2	36.6	38.9	37.1
Wine and hops	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.3	0.3	0.4	0.3	0.3	0.3	0.2
Coffee, tea, cocoa	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<i>Raw materials</i>	49.4	49.8	49.0	50.0	49.0	49.4	43.7	40.9	41.0	40.4	41.5	40.7	40.9	36.0
Tobacco	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Vegetable-oil materials	1.3	1.2	1.2	1.2	1.4	1.4	1.3	1.4	1.3	1.3	1.3	1.5	1.5	1.4
Textiles	38.9	38.7	38.8	38.9	38.9	39.1	34.6	27.2	26.7	27.2	27.1	27.3	27.5	24.2
Fuels	3.4	3.9	3.6	3.8	3.1	2.9	2.5	4.8	5.4	4.9	5.2	4.4	4.1	3.5
Metals (smelter production)	4.4	4.6	4.2	4.7	4.2	4.5	3.9	5.1	5.3	4.9	5.4	5.0	5.2	4.5
Non-metallic minerals	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.8	0.8	0.8	0.9	0.9	0.9	0.8
Chemicals (fertilisers)	0.8	0.8	0.7	0.8	0.8	0.9	0.8	1.6	1.5	1.3	1.6	1.6	1.7	1.6
Total Production.	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Appendix VI. Table 1.

NATIONAL INDICES OF INDUSTRIAL PRODUCTION. (Average 1925-1929 = 100.)

Country:	Canada	Chile	United States of America	Japan	Germany	Austria	Belgium	France	Hungary	Poland	United Kingdom		Sweden	Czechoslovakia	U.S.S.R.	
Source:	Dominion Bureau of Statistics	Direccion General de Estadistica	Federal Reserve Board	Mitsubishi Economic Research Bureau	Institut für Konjunkturforschung	Oesterreichisches Institut für Konjunkturforschung (c)	M. François Cracco	Statistique Générale	Ungarisches Institut für Wirtschaftsforschung	Institut de Recherches sur le Mouvement des Affaires	Board of Trade	London and Cambridge Economic Service	Sveriges Industrieförbund	Dr. K. Maiwald	Institut für Konjunkturforschung, Berlin	
Original Basis:	(a)	(c)	(a)	1921-1925	1928	1927	1923-1925	(b)	(a) (c)	(a)	(d)	1924	1924	1925-1930	1926-1927	(e)
Average																
1925	79	.	95	90	87	.	80	88	.	84	.	99	90	88	62	
1926	92	.	99	91	84	.	95	103	.	82	.	76	93	86	83	
1927	99	(87)	97	97	107	(100)	105	90	(100)	102	(101)	109	97	100	96	
1928	109	(96)	101	104	110	(111)	110	104	(99)	116	(100)	104	109	111	116	
1929	121	(117)	108	118	112	(114)	111	114	(97)	115	(105)	112	110	115	143	
1930	103	(116)	88	110	92	(100)	93	115	(84)	95	(97)	100	106	101	175	
1931	87	...	74	109	76	(88)	84	102	(68)	80	(88)	85	94	90	195	
1929																
I	132	(108)	109	104	107	(123)	113	112		125			113	111	133	
II	128	(112)	109	103	102	(110)	107	111	(95)	117	(104)	110	110	109	129	
III	126	(112)	109	116	110	(123)	112	113		118			106	112	139	
IV	125	(115)	111	117	119	(115)	115	114		123			114	118	150	
V	126	(121)	112	117	119	(111)	114	114	(103)	117	(106)	112	108	123	126	
VI	120	(117)	114	112	119	(110)	113	115		115			108	120	133	
VII	119	(116)	113	123	114	(110)	109	114		113			111	119	133	
VIII	122	(122)	111	120	112	(113)	109	114	(98)	113	(104)	110	112	115	144	
IX	110	(118)	111	123	112	(112)	109	113		113			109	116	157	
X	125	(127)	108	127	111	(122)	111	115		113			111	117	157	
XI	124	(121)	101	127	110	(116)	112	117	(92)	110	(108)	116	111	117	150	
XII	102	(116)	94	123	104	(108)	107	118		109			110	113	168	
1930																
I	119	(109)	97	108	103	(118)	107	118		105			120	106	166	
II	104	(119)	98	106	100	(107)	105	118	(92)	99	(105)	111	118	104	164	
III	105	(114)	95	115	100	(111)	102	118		95			114	105	185	
IV	107	(124)	95	112	102	(104)	100	118		94			112	106	177	
V	118	(120)	93	113	97	(106)	99	118	(87)	93	(97)	102	108	104	160	
VI	106	(118)	90	104	90	(86)	88	117		92			98	103	151	
VII	104	(117)	85	109	89	(88)	87	115		93			105	98	142	
VIII	99	(128)	82	107	88	(95)	86	114	(80)	94	(94)	92	101	98	153	
IX	97	(117)	82	109	87	(93)	86	112		96			102	98	183	
X	99	(117)	80	113	85	(97)	89	111		96			102	97	199	
XI	98	(112)	79	112	83	(97)	86	111	(76)	93	(93)	94	97	97	198	
XII	87	(99)	77	116	80	(98)	86	110		87			101	95	222	
1931																
I	89	(96)	76	106	75	(99)	88	109		85			85	90	176	
II	92	(103)	79	105	76	(92)	85	109	(70)	84	(90)	86	89	86	174	
III	97	...	80	95	81	(92)	88	108		84			90	87	188	
IV	92	...	80	101	84	(88)	87	107		83			97	92	183	
V	100	(110)	80	107	81	(82)	81	106	(70)	84	(87)	82	88	93	172	
VI	84	(114)	76	105	82	(75)	84	103		84			93	90	170	
VII	87	(102)	75	116	79	(78)	86	101		83			96	90	161	
VIII	83	(89)	71	116	74	(79)	85	99	(70)	81	(84)	82	94	93	175	
IX	87	(87)	69	114	74	(84)	84	97		79			96	94	210	
X	82	(85)	67	114	71	(93)	85	96		76			96	94	233	
XI	79	(90)	67	114	70	(97)	83	93	(64)	73	(92)	92	96	91	234	
XII	75	(83)	68	113	66	(96)	78	91		67			102	84	268	
1932																
I	79	(85)	66	101	58	(91)	...	86	...	60			93	...	...
II	81	...	63	105	61	(91)	...	82	...	60	(90)	93	101	...	...
III	77	...	61	111	61	...	...	80	...	61			96	...	...

(a) Adjusted for seasonal variations.

(b) Partly adjusted for seasonal variations.

(c) Original basis has not been changed, as figures for 1925 and 1926 are not available.

(d) Recalculated on the basis: 1924, 1927, 1928, 1929.

(e) Vierteljahrshefte zur Konjunkturforschung, sixth year, No. IV, Part B, and previous numbers; Wochenbericht, October 21st, 1931.

Appendix VI. Table 2.
PRODUCTION OF PIG-IRON AND FERRO-ALLOYS.

Countries	Output in metric tons (000's)							Output as percentage of average for 1925-1929		Output as percentage of world total		
	1925	1926	1927	1928	1929	1930	* 1931	1930	*1931	1925	1929	*1931
<i>North America</i>	37,863	40,797	37,895	39,836	44,486	33,087	19,195	82.4	47.8	49.2	45.2	34.6
Canada	606	827	778	1,100	1,188	825	473	91.7	52.6	0.8	1.2	0.9
United States of America	37,257	39,970	37,117	38,736	43,298	32,262	18,722	82.1	47.7	48.4	44.0	33.7
<i>Asia</i>	1,995	2,221	2,653	2,834	3,137	*3,072	2,600	119.6	101.2	2.6	3.2	4.5
Japan	697	822	912	1,110	1,113	*1,190	940	127.8	101.0	0.9	1.1	1.7
Rest of Asia	1,298	1,399	1,741	1,724	2,024	1,882	1,660	115.0	101.4	1.7	2.1	2.8
<i>U.S.S.R.</i>	1,536	2,448	3,024	3,373	4,322	5,014	4,900	170.5	166.6	2.0	4.4	8.8
<i>Europe (excl. U.S.S.R.)</i>	35,073	32,976	42,614	42,198	46,074	38,473	28,600	96.7	71.9	45.5	46.8	51.5
European Steel Entente			30,600	30,439	32,654	27,480	21,080	88.0	67.5		33.2	37.9
Germany	10,089	9,636	13,089	11,804	13,240	9,695	6,063	83.8	52.4	13.1	13.5	10.9
Belgium	2,543	3,368	3,709	3,857	4,041	3,365	3,232	96.0	92.2	3.3	4.1	5.8
France	8,505	9,430	9,299	10,072	10,362	10,035	8,217	105.3	86.2	11.0	10.5	14.8
Luxemburg	2,363	2,559	2,732	2,770	2,906	2,473	2,053	92.8	77.0	3.1	3.0	3.7
Saar Basin	1,453	1,635	1,771	1,936	2,105	1,912	1,515	107.4	85.1	1.9	2.1	2.7
Italy	536	559	529	554	727	588	541	101.2	93.1	0.7	0.7	1.0
Poland	315	327	618	684	706	478	347	90.2	65.5	0.4	0.7	0.6
United Kingdom	6,362	2,498	7,410	6,716	7,711	6,292	3,818	102.5	62.2	8.3	7.8	6.9
Sweden	463	501	455	438	524	496	420	104.2	88.2	0.6	0.5	0.8
Czechoslovakia	1,166	1,088	1,260	1,569	1,645	1,437	1,165	106.8	86.6	1.5	1.7	2.1
Rest of Europe	1,278	1,375	1,742	1,798	2,117	1,702	1,229	102.4	73.9	1.6	2.2	2.2
<i>Rest of the World</i>	533	558	614	509	*431	*354	305	66.9	57.7	0.7	0.4	0.6
WORLD	77,000	79,000	86,800	88,750	*98,450	*80,000	55,600	93.0	64.7	100.0	100.0	100.0

* Estimates or provisional figures.

Appendix VI. Table 3.
PRODUCTION OF STEEL (INGOTS AND CASTINGS).

Countries	Output in metric tons (000's)							Output as percentage of average for 1925-1929		Output as percentage of world total		
	1925	1926	1927	1928	1929	1930	*1931	1930	*1931	1925	1929	*1931
<i>North America</i>	46,887	49,858	46,578	53,626	58,739	42,379	26,892	82.9	52.6	51.7	48.7	38.9
Canada	765	789	922	1,255	1,400	1,026	684	100.0	66.7	0.8	1.2	1.0
United States of America	46,122	49,069	45,656	52,371	57,339	41,353	26,208	82.5	52.3	50.9	47.5	37.9
<i>Asia</i>	1,842	2,128	2,341	2,401	2,958	*2,946	2,500	126.2	107.1	2.0	2.4	3.6
Japan	1,336	1,548	1,728	1,955	2,343	*2,287	1,900	128.3	106.6	1.5	1.9	2.7
Rest of Asia	506	580	613	446	615	659	600	119.4	108.7	0.5	0.5	0.9
<i>U.S.S.R.</i>	2,124	3,120	3,720	4,278	4,907	5,690	5,300	156.7	146.0	2.4	4.1	7.8
<i>Europe (excl. U.S.S.R.)</i>	39,254	37,839	48,656	49,116	*53,360	*43,430	34,050	95.1	74.6	43.3	44.3	49.2
European Steel Entente . . . . .	.	.	32,473	32,343	34,761	28,520	22,775	85.9	68.6	.	28.8	32.9
Germany	12,051	12,226	16,123	14,318	16,023	11,511	8,270	81.4	58.5	13.3	13.3	12.0
Belgium	2,549	3,339	3,680	3,905	4,110	3,354	3,123	95.4	88.8	2.8	3.4	4.5
France	7,464	8,617	8,306	9,479	9,716	9,447	7,809	108.4	89.6	8.3	8.1	11.3
Luxemburg	2,086	2,244	2,471	2,567	2,702	2,270	2,035	94.0	84.3	2.3	2.2	2.9
Saar Basin	1,575	1,737	1,893	2,074	2,210	1,938	1,538	102.1	81.0	1.7	1.8	2.2
Italy	1,786	1,780	1,596	1,960	2,122	1,773	1,453	95.9	78.6	2.0	1.8	2.1
Poland	782	788	1,244	1,438	1,377	1,237	1,037	109.9	92.1	0.9	1.2	1.5
United Kingdom	7,504	3,654	9,243	8,656	9,791	7,443	5,262	95.8	67.7	8.3	8.1	7.6
Sweden	475	495	499	576	694	611	534	111.5	74.8	0.5	0.6	0.8
Czechoslovakia	1,475	1,345	1,689	1,973	2,193	1,817	1,529	104.8	88.7	1.6	1.8	2.2
Rest of Europe	1,417	1,614	1,912	2,170	2,422	2,029	1,460	106.4	76.6	1.6	2.0	2.1
<i>Rest of the World</i>	513	495	555	589	*546	*455	358	84.3	66.3	0.6	0.5	0.5
WORLD	90,620	93,440	101,850	110,010	*120,510	*94,900	69,100	91.9	66.9	100.0	100.0	100.0

* Estimates or provisional figures.

Appendix VI. Table 4.

ACTIVITY IN THE MECHANICAL ENGINEERING INDUSTRY.

(1925-1929 = 100.)

Country	1925	1926	1927	1928	1929	1930	1931	1931				
								I	II	III	IV	
<i>America :</i>												
United States of America ¹	Demand for machine tools	77	84	71	122	145	66	38	46	46	33	28
		Demand for foundry equipment	86	92	81	113	128	68	34	64	33	19	19
<i>Europe :</i>												
Germany ²	Despatch of machines . . .	86	74	97	121	122	101	72	72	79	75	62
	Orders received for machines	86	73	109	114	118	85	59	64	69	63	40
Denmark ³		97	99	80	104	120	125	...	.	.	.	.
France ⁴		88	101	87	105	120	120	104	110	108	103	94
Hungary ⁵		.	.	(84)	(101)	(116)	(101)	...	.	.	.	.
Netherlands ⁶	Value of products	78	85	93	112	131	125	...	.	.	.	.
	Workers employed	88	87	92	109	124	118	...	.	.	.	.
Poland	Metals and engineering ⁷	83	76	98	122	122	92	68	74	71	67	61
	Agricultural machinery ⁸	.	.	.	.	(100)	(63)	...	.	.	.	.
United Kingdom	Board of Trade ⁹	*(89)	.	(103)	(101)	(108)	(104)	(85)	(91)	(88)	(79)	(79)
	London and Cambridge Economic Service ¹⁰	87	89	102	122	101	120	49	.	.	.	.
Sweden ¹¹		76	90	94	114	126	131	...	.	.	.	.
U.S.S.R. ¹²	Machine production . . . . .	.	.	(72)	(94)	(136)	(203)	...	.	.	.	.
	Prod. of agricult. machinery	.	.	(72)	(92)	(135)	(193)	(222)	.	.	.	.
<i>Oceania :</i>												
New Zealand ¹³		73	83	102	123	119	88	...	.	.	.	.

* 1924.
¹ Indices published by the United States Department of Commerce.
² Institut für Konjunkturforschung.
³ Index of value of machines produced, based on figures of the Statistiske Departement.
⁴ Statistique générale de la France : index based on iron and copper manufacture, shipbuilding and automobile production.
⁵ Basis 1927-1929. Index based on value added by manufacture, published by the Ungarisches Institut für Wirtschaftsforschung.
⁶ Indices based on figures of the Central Bureau voor de Statistiek. Workers employed at September 15th.
⁷ Institut de Recherches sur le Mouvement des Affaires : index based on hours worked in the metal and engineering trades.
⁸ Basis 1929. Index of output of agricultural machinery based on figures of the Office central de statistique.
⁹ Basis 1924, 1927, 1928, 1929. Board of Trade index of production in engineering and shipbuilding.
¹⁰ London and Cambridge Economic Service : production of railway locomotives, wheels and axles.
¹¹ Values of production of shipbuilding, vehicles, machines, instruments and watches at 1913 prices ; index based on figures of the Kommerskollegium.
¹² Basis 1927-1929. Indices based on values of production at 1926-27 prices : *Economic Review of the Soviet Union*.
¹³ Consumption of iron and steel by engineering mills : index based on figures of the Census and Statistics Office. Economic years ending March 31st of following year.

Appendix VI. Table 5.

SHIPBUILDING.

(All vessels, including sailing vessels.)

Countries	Gross tonnage launched (000's omitted)							Tonnage launched as per- centage of world total		
	1925	1926	1927	1928	1929	1930	1931	1925	1930	1931
<i>North America :</i>										
United States: Coast.	78.8	115.2	124.3	86.1	100.6	214.0	202.2	3.6	7.4	12.5
Great Lakes.	50.0	35.4	54.9	5.3	25.4	32.7	3.6	2.3	1.1	0.2
<i>Asia :</i>										
Japan	55.8	52.4	42.4	103.7	164.5	151.3	83.7	2.5	5.2	5.2
<i>Europe :</i>										
Germany	406.4	180.5	289.6	376.4	249.1	245.6	103.9	18.5	8.5	6.4
Denmark	73.3	72.1	72.0	138.7	111.5	137.2	126.0	3.3	4.8	7.8
France	75.6	121.3	44.3	81.4	81.6	100.9	103.4	3.5	3.5	6.4
Italy	142.0	220.0	101.1	58.6	71.5	87.7	165.0	6.5	3.0	10.2
Netherlands	78.8	93.7	119.8	166.8	186.5	153.1	120.3	3.6	5.3	7.4
United Kingdom	1,084.6	639.6	1,225.9	1,445.9	1,522.6	1,478.6	502.5	49.4	51.2	31.1
Sweden	53.8	53.5	67.4	106.9	107.2	131.8	112.7	2.5	4.6	7.0
<i>Other countries</i>	94.3	91.3	144.0	129.4	172.7	156.6 ¹	93.7 ¹	4.3	5.4	5.8
WORLD . . .	2,193.4	1,675.0	2,285.7	2,699.2	2,793.2	2,889.5¹	1,617.1¹	100.0	100.0	100.0

¹ Excluding the Union of Soviet Socialist Republics, for which complete returns are not available.

Appendix VI. Table 6 (a).

PRODUCTION OF MOTOR-CARS.
(000's omitted.)

Country	1925	1926	1927	1928	1929	1930	1931	1930 as per- centage of 1925-1929	1931 as per- centage of 1925-1929
<i>America</i>	4,427	4,506	3,580	4,601	5,621	3,510	2,473	77	54
Canada	161	205	179	242	263	154	83	73	40
Passenger cars	139	165	147	197	207	125	64	73	37
Lorries, omnibuses, etc.	22	40	32	45	56	29	19	74	49
United States of America	4,266	4,301	3,401	4,359	5,358	3,356	2,390	77	55
Passenger cars	3,735	3,784	2,937	3,815	4,587	2,785	1,973	74	52
Lorries, omnibuses, etc.	531	517	465	543	771	571	417	101	74
U.S.S.R. ¹ . . . . .	.	.	1	1	2	9	23	900 ⁴	2300 ⁴
<i>Europe (excluding U.S.S.R.)</i>	458	498	604	641	686	618	*555	107	*96
Germany	70	50	106	114	101	76	*72	86	*82
Passenger cars	48	34	76	80	72	60	*55	97	*89
Lorries, omnibuses, etc.	22	16	30	34	29	16	*17	61	*65
Austria	5	5	9	10	9	7	5	92	66
Passenger cars	4	4	6	7	6	.	3	...	...
Lorries, omnibuses, etc.	1	1	3	3	3	.	2	...	...
Belgium	6	6	7	8	7	5	5	74	74
Passenger cars	5	5	6	7	6	4	4	69	69
Lorries, omnibuses, etc.	1	1	1	1	1	1	1	100	100
France	177	192	191	224	248	222	197	108	95
Passenger cars . . . . .	.	.	.	.	198	181	161	...	...
Lorries, omnibuses, etc. . . . .	.	.	.	.	50	41	36	...	...
Italy	40	55	65	55	60	48	30	87	55
United Kingdom	153	180	212	212	239	237	225	119	113
Passenger cars . . . . .	.	.	165	165	182	172	162	101*	95*
Lorries, omnibuses, etc. . . . .	.	.	47	47	57	65	63	129*	125*
Czechoslovakia ²	5	7	10	13	15	17	16	170	160
Passenger cars . . . . .	.	.	8	10	12	13	12	127*	115*
Lorries, omnibuses, etc. . . . .	.	.	2	3	3	4	4	150*	170*
Other countries ³	2	3	4	5	7	6	5	143	119
WORLD TOTAL	4,885	5,004	4,185	5,243	6,309	4,137	*3,051	81	60

* Rough estimate.

SOURCES : U.S. Department of Commerce. National official and private compilations ; direct information from the Society of Motor Manufacturers and Traders (London) and from the Confederazione Generale Fascista dell'Industria Italiana.

¹ U.S.S.R. Mainly commercial vehicles.

² Figures for Czechoslovakia which differ from those given in the *Statistical Year-Book of the League of Nations* have been drawn up by the Association of the Metal-working Industry of Czechoslovakia.

³ Other countries : Denmark, Hungary, Poland, Spain, Sweden, Switzerland. In addition, a few hundred commercial vehicles are produced in Japan.

⁴ Rounded-off figures based on average 1927-1929 = 100.

⁵ Based on average 1927-1929 = 100.

Note. — For several of the European countries, and more especially for France, available estimates vary greatly.

The division between passenger cars and lorries, omnibuses, etc., is in many cases very approximate. The latter group generally includes ambulances, motor-hearses, street-sweepers, fire apparatus, etc., but exclude tractors for agricultural purposes.

The figures are intended to show national production only, excluding output of assembly plants. In the production returns of the United States, only the exports of "parts of assembly" declared as "complete cars" are included. The numbers of cars built in other countries from materials exported from the U.S. as "parts for assembly" and not included in the U.S. production returns have been estimated as follows : (000's) : 1925 : 140 ; 1926 : 100 ; 1927 : 73 ; 1928 : 67 ; 1929 : 188 ; 1930 : 160. As a large part of this production would appear to be excluded from the national statistics shown, the world totals may be somewhat too low.

Appendix VI. Table 6 (b).

EXPORTS OF MOTOR-CARS.
Number (000's).

Countries	1925	1926	1927	1928	1929	1930	1931 ¹	As percentage of 1925-1929	
								1930	1931
Canada	74.1	74.3	57.4	79.4	101.7	44.6	13.8	57	18
United States of America . . .	303.0	305.0	385.0	507.0	536.0	255.0	204.0	63	50
Total (1)	377.1	379.3	442.4	586.4	637.7	299.5	217.8	62	45
Germany	2.6	2.2	4.1	8.0	8.2	6.2	11.8	124	235
France	63.8	59.8	52.1	46.0	48.5	31.1	26.3	58	49
Italy	29.1	34.2	33.3	28.3	23.7	20.7	11.9	70	40
United Kingdom	29.0	32.5	35.6	32.5	42.0	29.8	24.3	87	71
Total (2)	124.5	128.7	125.1	114.8	122.4	87.8	74.3	71	60
Total (1+2) ²	501.6	508.0	567.5	701.2	760.1	387.3	292.1	64	48

¹ Provisional figures.

² Excluding parts and engines exported from the United States.

(Continuation of footnotes to Table 7.)

⁶ (a) Indices of building permits and buildings completed in 85 towns, number of dwellings (basis 1927-1929) and cubic volume of business buildings (basis 1928-1929), based on figures published by the Institut für Konjunkturforschung, and general index of urban buildings completed (basis 1927-1929) compiled by this Institute. (b) Index based on statistics covering whole of Germany published in *Vierteljahrshefte zur Statistik des Deutschen Reichs*.

⁷ Basis 1928-1929. Index of building permits in Brussels, Antwerp, Ghent, Liège, based on figures published by the Banque Nationale de Belgique.

⁸ Index of number of apartments completed in the capital and in 85 provincial towns (including suburbs). From 1925 up to 1928, economic years ending October (November and December 1928 does not figure in the series). Index of numbers of apartments under construction (basis 1928-1929) in the same towns at January 1st of the following year. Both indices based on figures published by the Statistiske Departement.

⁹ Index of actual number of dwelling-rooms (including kitchen) completed in 38 localities, based on figures published by the Central Statistical Bureau. 1930: partly estimated.

¹⁰ Index based on actual number of building permits (when possible, numbers of floors) issued in the principal towns, compiled by the Statistique Générale de la France.

¹¹ Basis 1929. Index of building permits (numbers of apartments) issued in the 17 principal towns, based on figures published by the Istituto Centrale di Statistica.

¹² Index of net increase of number of dwellings in towns of more than 2,000 inhabitants, based on figures published by the Statistiske Centralbyrå.

¹³ Basis 1926-1929. Index of number of dwellings completed on newly exploited ground (*i.e.*, excluding rebuilding) based on figures published by the Centraal Bureau voor de Statistiek.

¹⁴ Index of activity compiled by the Institut de Recherches sur le mouvement des affaires, based on total number of hours worked and indices of number of buildings completed in towns of more than 25,000 inhabitants, based on figures published by the Office Central de statistique.

¹⁵ Basis: 1924, 1927, 1928, 1929. Indices of estimated cost of plans approved by 146 local authorities. "Other buildings" include additions and alterations to existing buildings. Compiled by the Board of Trade.

¹⁶ Index based on estimated number of houses completed in England and Wales (1931: provisional).

¹⁷ Indices based on absolute figures published by the K. Socialistyrelsen. Index of dwellings permits (basis 1927-1929) relates to towns of more than 10,000 inhabitants.

¹⁸ Basis 1926-1929. Indices relating to 351 localities based on figures published by the Office fédéral de l'Industrie, des arts et métiers et du travail.

¹⁹ Indices based on figures published by the Census and Statistics Office. Economic years ending March 31st of the following year.

Appendix VI. Table 7.

ACTIVITY IN THE BUILDING INDUSTRY.

(1925-1929 = 100.)

Country	1925	1926	1927	1928	1929	1930	1931
<i>Africa :</i>							
Union of South Africa ¹	78	95	102	104	122	146	147
{ Total plans passed	79	96	101	108	116	127	116
{ New dwelling-houses completed							
<i>America :</i>							
Canada ²	70	78	104	108	140	119	90
{ Total buildings	106	100	96	109	89	58	41
{ Residential buildings	111	103	98	112	77	45	38
{ Factory and commercial buildings	96	96	89	106	113	62	...
{ Public works and utilities	130	93	102	81	94	119	54
{ Index of volume of construction	94	96	100	105	104	88	60
Argentina ⁴	99	78	87	105	131	117	...
Chile ⁵	.	.	.	.	(100)	(79)	(35)
<i>Europe :</i>							
Germany ⁶ (a)	.	.	(90)	(92)	(118)	(90)	(42)
{ Permits { Dwellings . . . . .	.	.	.	(101)	(99)	(67)	(33)
{ Business buildings completed . . . . .	.	.	.	(95)	(105)	(94)	(50)
{ Urban buildings completed . . . . .	.	.	(87)	(101)	(111)	(115)	(75)
{ (b) Dwellings completed : total Germany	69	79	110	119	122	119	...
Belgium ⁷	.	.	.	(94)	(106)	(92)	(98)
Denmark ⁸	89	98	101	98	113	133	162
{ Apartments completed . . . . .	.	.	.	(87)	(113)	(153)	(156)
{ Apartments under construction . . . . .	.	.	.	.	.	.	.
Finland ⁹	67	83	110	135	106	26	...
France ¹⁰	81	115	81	98	124	139	127
Italy ¹¹	.	.	.	.	(100)	(80)	(49)
Norway ¹²	106	82	76	101	134	141	146
Netherlands ¹³	.	(101)	(104)	(98)	(98)	(106)	(104)
Poland ¹⁴	84	71	85	131	128	86	50
{ Index of building	66	88	99	103	144	179	...
{ Buildings completed { Dwelling-houses	121	77	119	92	91	...	...
{ Industrial buildings	(*93)	.	(99)	(99)	(109)	(116)	(100)
{ Dwelling-houses	(*81)	.	(97)	(108)	(114)	(110)	(89)
{ Other buildings	83	104	128	84	101	86	95
{ Board of Trade ¹⁵ { Dwelling-houses	85	94	102	112	107	151	150
{ London and Cambridge Economic Service ¹⁶	92	98	100	106	104	138	138
{ Dwelling-houses completed	113	97	108	113	69	111	128
{ Rooms (incl. kitchens) completed . . . . .	.	.	(88)	(88)	(124)	(128)	(106)
{ Non-speculative buildings . . . . .	.	(84)	(95)	(109)	(112)	(128)	(143)
{ Dwelling permits . . . . .	.	(85)	(93)	(107)	(115)	(129)	(154)
{ Dwelling permits . . . . .	.	(83)	(104)	(104)	(109)	(94)	(87)
{ Commercial and industrial bldgs. permits . . . . .	.	(95)	(96)	(101)	(107)	(100)	(100)
{ Dwelling permits . . . . .	.	.	.	.	.	.	.
{ Dwelling permits . . . . .	.	.	.	.	.	.	.
{ Commercial and industrial bldgs. built . . . . .	.	.	.	.	.	.	.
<i>Oceania :</i>							
New Zealand ¹⁹	112	117	93	85	94	56	...
{ Permits : Dwelling-houses	96	92	82	115	116	77	...
{ Buildings completed { Dwelling-houses	63	89	92	124	132	77	...
{ Business premises							

* 1924.

¹ Urban areas. Absolute figures published by the Office of Census and Statistics. Economic years ending June 30th. Indices for 1930 and 1931 based on less complete monthly series.

² Index based on value of contracts adjusted for changes in costs. Dominion Bureau of Statistics.

³ Indices of contracts awarded relating to area of new buildings in 37 States based on figures of the F. W. Dodge Corporation; index of volume of construction published in *Survey of Current Business* is based on consumption of materials.

⁴ Ground area of new buildings in Buenos Aires: *Revista de Economia Argentina*.

⁵ Basis 1929. Index based on figures published by the Direccion General de Estadistica, representing area of new buildings in nine municipalities.

(For continuation of footnotes, see preceding page.)

Appendix VI. Table 8 (a).
ACTIVITY IN THE ELECTRICAL INDUSTRY.
(1925-1929 = 100.)

Country	1925	1926	1927	1928	1929	1930	1931	1931				
								I	II	III	IV	
<i>America:</i>												
United States of America ¹ . .	87	95	89	100	129	99	68	69	85	60	57	
<i>Europe:</i>												
Germany ² { Prod. of electr. bulbs	(90)	(88)	(108)	(114)	...	...	...	.	.	.	.	.
{ Prod. of wireless												
{ equipment	(33)	(36)	(89)	(242)	...	...	...	.	.	.	.	.
Denmark ³ (Value of production)	83	87	91	106	133	154	...	.	.	.	.	.
Italy ⁴ { Machines . . . . .	.	.	.	.	(100)	(92)	(81)	.	.	.	.	.
{ Bulbs	69	80	95	107	150	169	149	157	140	143	156	.
Netherlands ⁵ { Value of products	75	75	100	104	147	144	...	.	.	.	.	.
{ Workers												
{ employed	82	86	95	111	126	119	...	.	.	.	.	.
United Kingdom ⁶	82	95	123	91	110	111	79	87	84	78	67	.
Sweden ⁷	75	91	100	117	118	126	...	.	.	.	.	.
U.S.S.R. ⁸ . . . . .	.	.	(72)	(94)	(133)	(277)	(517)	.	.	.	.	.

¹ Index based on values of new orders of electrical goods published by the United States Department of Commerce. Figures relate to about 60 per cent of industry.

² Basis 1925-1928. Institut für Konjunkturforschung.

³ Index based on figures of value of production of electrical goods published by the Statistiske Departement.

⁴ Index of production of machinery furnished by the Associazione Nazionale Fascista fra Industriali Meccanichi ed Affini. Index of output of bulbs based on figures published by the Istituto Centrale di Statistica.

⁵ Indices based on figures published by the Centraal Bureau voor de Statistiek, workers employed on September 15th.

⁶ Index of activity in the Electrical Manufacturing industry, compiled by the British Electrical and Allied Manufacturers' Association (BEAMA).

⁷ Index based on figures of value of production of electrical goods, published by the Kommerskollegium.

⁸ Index based on value of output of electro-technical producers' goods, published in *Economic Review of the Soviet Union*.

Appendix VI. Table 8 (b).

EXPORTS OF ELECTRICAL GOODS.

Country	\$ (000,000's)							As percentage of 1925-1929	
	1925	1926	1927	1928	1929	1930	1931 ¹	1930	1931
<i>America :</i>									
United States	84	74	85	89	121	119	85	131	93
<i>Europe :</i>									
Germany	84	93	103	126	149	150	134	135	121
France	19	21	15	16	13	15	14	88	82
Netherlands	13	5	9	15	39	32	23	200	144
United Kingdom	85	94	91	90	96	90	54	99	59
Sweden	10	12	15	27	23	24	12	150	75
Switzerland	10	10	11	14	14	14	10	117	83
Total	305	309	329	377	455	444	332	125	94

¹ Provisional figures.

Note : The definition of the term " Electrical Industry " is not uniform in all countries, and the classification of electrical goods in the trade returns varies. But, as far as possible, the above statistics have been compiled on a uniform basis, and embrace electrical machinery (motors, dynamos, transformers, etc.), bulbs, electrical installation materials, boiling apparatus, telephones, radio receivers, electrometers, cables, etc.

Appendix VI. Table 9.

PRODUCTION OF ELECTRICAL ENERGY.¹

Kilowatts (000,000's omitted).

Country	1925	1926	1927	1928	1929	1930	*1931	As percentage of 1925-1929	
								1930	*1931
<i>North America :</i>									
Canada . . .	10,110	12,093	14,549	16,338	17,963	17,863	16,384	126	115
United States ²	.	90,300	97,000	105,000	120,000	120,000	...	122	...
<i>Asia :</i>									
Japan . . .	8,172	9,313	10,559	12,036	13,312	13,957	...	131	...
<i>Europe :</i>									
Germany . .	20,328	21,218	25,135	27,870	30,661	...	...	...	...
Austria . .	2,320	2,446	*2,500	*2,500	*2,500	*2,500	...	...	...
Belgium ³ . .	2,274	.	3,243	3,725	4,270	4,395	...	135	...
Finland . .	541	610	685	755	995	1,186	...	165	...
France . . .	10,222	11,268	11,388	12,976	14,319	15,339	...	127	...
Italy	6,545	7,644	8,108	8,936	9,794	10,079	9,907	123	121
Norway . . .	7,820	8,490	8,700	9,490	10,000	...	...	...	...
Netherlands .	1,004	1,060	1,234	1,477	1,690	1,818	...	141	...
Poland . . .	1,297	1,441	1,742	1,925	2,355	2,166	...	124	...
United Kingd.	11,278	11,374	13,451	14,534	15,806	*16,620	17,150	125	129
Sweden . . .	3,673	4,006	4,392	4,409	4,967	5,117	...	119	...
Switzerland .	3,665	4,170	4,400	5,150	5,300	...	...	...	...
Czechoslovakia	1,955	2,100	2,381	2,749	...	...	...	...	...
<i>U.S.S.R. . . .</i>	2,925	3,507	4,173	5,003	6,386	8,231	11,000	187	250
<i>Oceania :</i>									
Australia . .	1,537	1,730	1,988	2,194	2,286	2,436	...	125	...
New Zealand	340	427	510	597	710	760	...	147	...

* Estimate or provisional figure.

¹ More complete statistics, with notes concerning their scope, are given in the *Statistical Year-Book of the League of Nations, 1931-32, Table 69 (a), (b) and (c)*.

² The production in 1925 has been estimated for the calculation of the average for 1925-1929.

³ The production in 1926 has been estimated for the calculation of the average for 1925-1929.

Appendix VI. Table 10.

COMPOSITE INDICES OF ACTIVITY IN THE TEXTILE INDUSTRIES.

(1925-1929 = 100.)

Country	1925	1926	1927	1928	1929	1930	1931	1931			
								I	II	III	IV
<i>America :</i>											
Chile ¹ . . . . .	.	.	(97)	(93)	(109)	(110)	(76)	(87)	(109)	(55)	(54)
United States ²	96	96	104	99	106	84	87	85	89	92	83
<i>Asia :</i>											
Japan ³	95	102	99	96	109	98	100	93	96	103	106
<i>Europe :</i>											
Germany ⁴ { Monthly .	96	89	115	104	95	92	90	84	91	91	94
{ Annual .	95	85	117	105	98	92	[87]	.	.	.	.
Belgium ⁵	81	92	106	114	107	88	83	.	.	.	.
Denmark ⁶ . . . . .	.	.	(92)	(96)	(112)	(114)	...	.	.	.	.
France ⁷	97	104	95	106	98	91	76	88	82	69	65
Norway ⁸ . . . . .	.	.	(93)	(96)	(111)	(122)	...	.	.	.	.
Netherlands ⁹	91	95	102	105	107	102	...	.	.	.	.
Poland ¹⁰	82	78	115	118	108	83	79	81	87	79	68
United Kingdom ¹¹ { Board of Trade .	*(100)	.	(102)	(100)	(99)	(80)	(77)	(73)	(75)	(71)	(90)
{ London & Cambridge: Quarterly	106	92	105	98	99	79	77	69	74	72	93
{ Annual .	102	94	104	98	102	87	95	.	.	.	.
Sweden ¹² { (a)	86	96	103	108	108	114	...	.	.	.	.
{ (b)	89	98	102	107	105	107	...	.	.	.	.
Czechoslovakia ¹³	93	87	111	104	105	98	83	86	86	82	78

* 1924.

¹ Original basis : 1927-1929. Index of the Direccion General de Estadistica based on cloth production.

² Index of the Federal Reserve Board.

³ Index compiled by the Japanese Cotton Spinners' Association.

⁴ Indices of the Institut für Konjunkturforschung. 1931 : estimated annual index.

⁵ Annual index compiled by M. François Cracco.

⁶ Annual index compiled by the Statistische Departement.

⁷ Index of the Statistique générale de la France.

⁸ Basis 1927-1929. Annual index of the Statistiske Centralbyrå.

⁹ Indices based on number of workers employed. Figures published by the Centraal Bureau voor de Statistiek (*Maandschrift*, January 31st, 1931 and 1932).

¹⁰ Index of the Institut de recherches sur le mouvement des affaires, based on total number of hours worked.

¹¹ Board of Trade, basis 1924, 1927, 1928, 1929. Quarterly and annual indices of the London and Cambridge Economic Service.

¹² (a) Annual index of the Kammerskollegium, including hosiery and clothing; (b) Index of total production of yarn and tissues, based on figures published by the Kammerskollegium.

¹³ Index compiled by Dr. Karel Maiwald.

Appendix VI. Table 11(a).

COTTON MILL CONSUMPTION FROM 1924-25 TO 1930-31.

Metric tons (000's).¹

Countries	American Cotton						East Indian Cotton						Egyptian Cotton					
	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31
<i>North America</i>	1,446	1,605	1,526	1,589	1,361	1,198	5	5	5	6	11	8	49	58	50	57	51	28
Canada	47	44	44	49	43	44	—	—	—	—	—	—	2	3	1	3	4	4
United States	1,399	1,561	1,482	1,540	1,318	1,154	5	5	5	6	11	8	47	55	49	54	47	24
<i>Caribbean and S. America</i>	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
Brazil	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mexico	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
<i>Asia</i>	229	398	343	325	324	305	776	763	615	683	799	783	15	18	15	15	20	33
China	27	62	67	63	66	82	89	83	56	72	84	94	1	1	1	—	1	3
India	2	79	31	12	10	12	366	397	334	341	407	417	2	1	1	1	5	18
Japan	200	257	245	250	248	211	321	283	225	270	308	272	12	16	13	14	14	12
<i>U.S.S.R.</i> *	62	88	112	88	64	12	—	—	—	—	21	21	16	21	24	20	18	21
<i>Europe</i> **	1,364	1,471	1,497	1,388	1,181	938	223	170	197	241	261	243	234	240	235	244	229	207
Germany	200	275	289	232	209	163	37	31	38	46	49	38	15	23	22	24	27	26
Belgium	40	47	49	50	41	31	28	23	27	32	33	27	1	1	1	2	2	3
France	139	187	188	187	165	161	30	29	33	39	41	41	37	34	33	37	41	36
Italy	161	154	160	169	151	108	46	33	32	41	47	43	17	17	17	18	18	18
Netherlands	27	30	33	34	34	32	5	5	6	7	8	8	—	—	—	—	—	—
Poland	36	61	72	48	42	40	4	6	4	4	4	4	—	4	3	5	3	3
United Kingdom	475	471	442	433	334	225	30	15	22	33	34	46	135	127	123	126	104	83
Czechoslovakia	80	93	98	86	73	62	18	12	14	16	20	15	7	8	10	8	6	8
Other countries *	156	153	166	149	132	116	25	16	21	23	25	21	20	26	26	24	28	30
<i>Various countries n.e.i.</i> *	11	17	16	29	24	21	7	5	4	9	12	8	4	5	4	5	5	5
Total	3,113	3,579	3,494	3,419	2,954	2,474	1,011	943	821	939	1,104	1,063	318	342	329	341	323	294
Total as percentage of 1924-25 to 1928-29	94	108	105	103	89	74	107	100	87	100	117	113	95	103	99	102	97	88

Appendix VI. Table 11 (a) (continued).

COTTON MILL CONSUMPTION FROM 1924-25 TO 1930-31.

Metric tons (000's).¹

Countries	Sundries						Total						1924/25-1928/29 =100		Consumption as per cent- age of world total			
	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31	1924-25	1925-26	1926-27	1927-28	1928-29	1929-30	1930-31	1929-30	1930-31	1924-25	1929-30	1930-31
North America	12	13	13	11	10	9	1,439	1,512	1,681	1,594	1,663	1,433	1,243	91	79	28	26.5	25.5
Canada	—	—	—	—	—	—	36	49	47	45	52	47	48	102	104	1	1	1
United States	12	13	13	11	10	9	1,403	1,463	1,634	1,549	1,611	1,386	1,195	90	78	27	25.5	24.5
Caribbean and S. America	204	128	151	130	128	110	149	205	128	152	130	128	110	84	72	3	2.5	2.5
Brazil	160	91	113	96	84	80	109	160	91	113	96	84	80	74	70	2	1.5	1.5
Mexico	44	37	38	34	44	30	40	45	37	39	34	44	30	113	77	1	1	1
Asia	267	278	336	302	373	337	1,258	1,287	1,457	1,309	1,325	1,516	1,458	114	110	25	28	30
China	234	242	288	261	314	294	323	351	388	412	396	465	473	124	126	6	9	9.5
India	7	12	11	13	25	23	446	377	489	377	367	447	470	109	114	9	8	9.5
Japan	26	24	37	28	34	20	489	559	580	520	562	604	515	111	95	10	11	11
U.S.S.R.*	292	263	265	348	339	326	234	370	372	401	456	442	380	120	104	5	8	8
Europe**	114	144	150	119	180	176	1,949	1,935	2,025	2,079	1,992	1,851	1,564	93	78	38	34	32.5
Germany	3	5	7	7	10	17	272	255	334	356	309	295	244	97	80	5	5	5
Belgium	3	5	12	11	19	13	63	72	76	89	95	95	74	120	94	1	2	1.5
France	15	20	16	16	21	17	259	271	270	279	279	268	255	99	94	5	5	5
Italy	4	4	4	4	5	4	220	228	208	213	232	221	173	100	79	4	4	3.5
Netherlands	1	1	1	1	2	3	30	33	36	40	42	44	43	122	119	0.5	1	1
Poland	1	1	2	1	2	3	46	43	72	81	58	51	50	85	83	1	1	1
United Kingdom	76	98	97	70	102	98	791	716	711	684	662	574	452	81	63	16	11	9.5
Czechoslovakia	1	1	1	1	3	4	107	106	114	123	111	102	89	91	79	2	2	2
Other countries*	10	9	10	8	16	17	161	211	204	223	204	201	184	100	92	3.5	3	4
Various countries n.e.i.*	21	26	35	37	23	35	37	43	53	59	80	64	69	118	127	1	1	1.5
Total	910	852	950	947	1,053	993	5,066	5,352	5,716	5,594	5,646	5,434	4,824	99	88	100	100	100
Total as percentage of 1924-25 to 1928-29	104	97	108	108	120	113	93	98	104	102	103	99	88					

Source: *International Cotton Bulletin*.
Economic years ending July 31st.

¹ Bales have been converted to metric tons according to the following rates:

American cotton 1 bale = 500 lb. = 226.7962 kg.
East Indian cotton 1 bale = 400 lb. = 181.4370 kg.
Egyptian cotton 1 bale = 760 lb. = 344.7303 kg.
Sundries 1 bale = 450 lb. = 204.1166 kg.

* Figures for 1930-31 estimated by the International Federation of Master Cotton Spinners' and Manufacturers' Associations from trade sources.

** The group "Other Countries" of Europe includes the following countries: Austria, Denmark, Spain, Finland, Norway, Portugal, Sweden, Switzerland.

* As no return is available for Hungary prior to the half-year ending July 31st, 1929, estimates for Hungary have been included in the group "Various countries n.e.i." for the whole period.

Appendix VI. Table 11 (b).

ACTIVITY IN THE COTTON-SPINNING INDUSTRY.

(1925-1929 = 100.)

Country	1925	1926	1927	1928	1929	1930	1931	1931			
								I	II	III	IV
<i>America :</i>											
Canada ¹	91	102	103	102	102	78	73	60	75	65	93
United States of America ²	94	98	108	97	103	78	79	77	82	84	77
<i>Asia :</i>											
China ³	86	91	101	110	113	...	...	.	.	.	.
India ⁴	94	110	110	88	114	118	*127	.	.	.	.
Japan ⁵	95	102	99	96	109	98	100	93	98	103	106
<i>Europe :</i>											
Germany ⁶	100	84	116	105	95	95	91	84	91	89	101
Austria ⁷ . . . . .	.	(89)	(110)	(104)	(102)	(96)	(90)	(86)	(82)	(89)	(103)
Belgium ⁸	86	92	101	115	107	95	80	79		81	
Denmark ⁹	89	87	105	102	116	115	...	.	.	.	.
Finland ¹⁰	92	99	109	109	90	89	...	.	.	.	.
France ¹¹	97	99	98	104	102	94	64	86	56	58	59
Hungary ¹²	59	69	92	113	167	193	194	169	198	148	261
Italy ¹³	102	103	90	100	105	88	74	.	.	.	.
Norway ¹⁴ . . . . .	.	.	(87)	(100)	(100)	(84)	(77)	(77)	(76)	(74)	(80)
Poland ¹⁵ . . . . .	.	.	[113]	(108)	(92)	(113)	(127)	...	.	.	.
Portugal ¹⁶ . . . . .	.	.	.	.	.	(100)	(82)	(89)	(73)	(76)	(91)
United Kingdom ¹⁷	(a) †(94)	.	(108)	(100)	(99)	(72)	(75)	(68)	(68)	(68)	(97)
	(b) 112	94	105	95	94	68	74	.	.	.	.
	(c) 109	94	106	95	96	74	72	63	69	66	90
Sweden ¹⁸	84	99	104	110	103	107	...	.	.	.	.
U.S.S.R. ¹⁹ . . . . .	.	(81)	(94)	(108)	(116)	(100)	(111)	.	.	.	.

* Half-year, April to September.

† 1924.

¹ Index of the Dominion Bureau of Statistics, based on raw cotton imports.

² Index of the Federal Reserve Board, based on mill consumption of raw cotton.

³ Index based on figures published by the Cotton Trade Statistical Bureau, Manchester, representing the estimated production of yarn.

⁴ Index based on yarn production ; economic years ending March 31st of following year.

⁵ Index based on figures of cotton-yarn production published by the Japanese Cotton Spinners' Association.

⁶ Index of the Institut für Konjunkturforschung, based on cotton-yarn production.

⁷ Basis 1926-1930. Index of the Österreichisches Institut für Konjunkturforschung, based on cotton-yarn production.

⁸ Index based on figures of cotton-yarn production published by the Banque Nationale de Belgique : economic years ending January 31st of following year.

⁹ Index based on figures published by the Statistische Departement, representing cotton-yarn production.

¹⁰ Index based on figures of cotton-yarn production published by the Central Statistical Bureau.

¹¹ Index based on figures of cotton-yarn production furnished by the Syndicat général de l'Industrie cotonnière française and published by the Statistique générale de la France.

¹² Index of cotton-yarn production compiled by the Ungarisches Institut für Wirtschaftsforschung.

¹³ Index based on raw-cotton imports, and on basis 1929, index of cotton-yarn production compiled by the Associazione Nazionale degli Industriali Cotonieri.

¹⁴ Basis 1927-1929. Index based on figures of cotton-yarn production published by the Statistische Centralbyrå.

¹⁵ Basis 1928-29. Index based on figures of cotton-yarn production published by the Office Central de Statistique. Data for 1927 is not strictly comparable.

¹⁶ Basis 1930. Index based on figures of cotton-yarn production published by the Direcção Geral de Estatística.

¹⁷ (a) Board of Trade, based on quantities of raw cotton delivered to mills. Basis 1924, 1927-1929. (b) Annual and (c) quarterly indices of the London and Cambridge Economic Service, based on yarn produced and yarn manufactured.

¹⁸ Index based on figures of cotton-yarn production (weight) published by the Kommerskollegium.

¹⁹ Basis 1925-26 to 1928-29. Index based on mill consumption of raw cotton ; economic years ending September 30th (1931 : calendar year).

Appendix VI. Table 11 (c).

ACTIVITY IN THE COTTON-WEAVING INDUSTRY.

(1925-1929 = 100.)

Country	1925	1926	1927	1928	1929	1930	1931	1931				
								I	II	III	IV	
<i>America :</i>												
United States of America ¹	.	.	.	(101)	(99)	(80)	(79)	(77)	(80)	(76)	(80)	
<i>Asia :</i>												
China ²	34	.	101	.	165	...	...	.	.	.	.	.
India ³	94	109	115	90	114	119	132	.	.	.	.	.
Japan ⁴	89	93	98	104	116	105	106	99	107	107	112	
<i>Europe :</i>												
Germany ⁵	100	78	117	110	94	94	...	.	.	.	.	.
Austria ⁶	.	(88)	(109)	(99)	(100)	(104)	(115)	(110)	(107)	(116)	(128)	
Denmark ⁷	106	94	95	92	112	110	...	.	.	.	.	.
Finland ⁸	60	68	132	133	107	103	...	.	.	.	.	.
France ⁹	96	99	100	101	103	104	77	96	85	66	62	
Hungary ¹⁰	(a)	73	86	117	105	119	116	114	97	119	93	148
	(b)	77	92	120	105	106	105	90	81	93	74	113
Italy ¹¹	.	.	.	.	(100)	(81)	(71)	(72)	(72)	(69)	(71)	
Norway ¹²	.	.	(94)	(97)	(109)	(127)	...	.	.	.	.	.
Netherlands ¹³	91	96	102	105	106	98	...	.	.	.	.	.
Poland ¹⁴	.	.	.	(107)	(93)	(84)	...	.	.	.	.	.
Sweden ¹⁵	83	99	105	106	107	111	...	.	.	.	.	.
U.S.S.R. ¹⁶	.	.	(90)	(99)	(111)	(84)	(89)	.	.	.	.	.

¹ Basis 1928-1929. Index based on figures of cotton textiles production published by the United States Department of Commerce and furnished by the Association of Cotton Textile Merchants of New York.

² Basis : 1925, 1927, 1929. Index based on estimates representing mill output only, published by the Cotton Trade Statistical Bureau, Manchester.

³ Index based on production of cotton manufactures. Economic years ending March 31st of following year.

⁴ Index based on figures published by the Japanese Cotton Spinners' Association, representing cotton-cloth produced.

⁵ Annual index of the Institut für Konjunkturforschung.

⁶ Base 1926-1930. Index of the Österreichisches Institut für Konjunkturforschung, based on the consumption of yarn by weavers.

⁷ Index based on figures of cotton-cloth production published by the Statistiske Departement.

⁸ Index based on figures of cotton-cloth production published by the Central Statistical Bureau.

⁹ Index based on figures of cotton-tissues production, furnished by the Syndicat général de l'Industrie cotonnière française and published by the Statistique Générale de la France.

¹⁰ Indices of (a) output of weaving mills, and (b) output of finished cotton goods, compiled by the Ungarisches Institut für Wirtschaftsforschung.

¹¹ Basis : 1929. Index of average daily output, compiled by the Associazione Nazionale degli Industriali Cotonieri.

¹² Basis 1927-1929. Index based on figures of production of cotton-cloth, published by the Statistiske Centralbyrå.

¹³ Index based on the number of workers employed at September 15th, published by the Centraal Bureau voor de Statistiek.

¹⁴ Basis : 1928-1929. Index based on figures published by the Office Central de Statistique, representing production of cotton-cloth.

¹⁵ Index based on weight of cotton-tissues produced, published by the Kommerskollegium.

¹⁶ Basis : 1928-1929. Index based on figures published in *Sowjetwirtschaft und Aussenhandel*, representing production of cotton-cloth. 1931 : estimate.

Appendix VI. Table 12.

ACTIVITY IN THE WOOL INDUSTRY.
(1925-1929 = 100.)

Country	1925	1926	1927	1928	1929	1930	1931	1931			
								I	II	III	IV
<i>America :</i>											
Canada ¹	97	110	103	102	87	68	78	.	.	.	.
Chile ² . . . . .	.	.	(73)	(101)	(124)	(154)	(230)	(142)	(304)	(238)	(236)
United States of America ³	102	95	100	98	105	75	85	77	96	102	69
<i>Asia :</i>											
Japan ⁴ { Spinning . . . . .	.	.	.	.	.	(75)	(100)	(87)	(94)	(104)	(115)
Weaving . . . . .	.	.	.	.	.	.	(100)	(107)	(87)	(110)	(96)
<i>Europe :</i>											
Germany ⁵ { Carded wool											
Spinning	93	89	107	107	104	112	...	.	.	.	.
Weaving	81	100	124	100	95	93	...	.	.	.	.
Belgium ⁶	76	84	114	115	111	85	80	84	79	73	85
Denmark ⁷ { Spinning	86	92	101	108	113	112	...	.	.	.	.
Weaving	100	85	95	107	114	110	...	.	.	.	.
Finland ⁸ { Spinning	101	102	103	107	87	67	...	.	.	.	.
Weaving	28	22	172	153	125	128	...	.	.	.	.
France ⁹	96	103	97	105	100	94	83	91	88	74	80
Hungary ¹⁰ { Spinning . . . . .	.	.	(92)	(108)	(100)	(80)	(77)	(71)	(73)	(68)	(97)
Weaving . . . . .	.	.	(112)	(99)	(89)	(76)	(60)	(53)	(60)	(59)	(69)
Italy ¹¹ . . . . .	.	.	.	(102)	(98)	(90)	(83)	(83)	(84)	(84)	(83)
Norway ¹² { Spinning . . . . .	.	.	(99)	(98)	(103)	(105)	...	.	.	.	.
Weaving . . . . .	.	.	(100)	(95)	(105)	(115)	...	.	.	.	.
Netherlands ¹³	93	95	101	105	107	107	...	.	.	.	.
Poland ¹⁴ { Spinning . . . . .	.	.	(108)	(99)	(93)	(72)	...	.	.	.	.
Weaving . . . . .	.	.	(113)	(104)	(83)	(63)	...	.	.	.	.
United Kingdom ¹⁵	91	102	102	97	107	111	125	.	.	.	.
Sweden ¹⁶ { Spinning	96	99	97	105	103	102	...	.	.	.	.
Weaving	97	97	98	103	105	108	...	.	.	.	.
U.S.S.R. ¹⁷ . . . . .	.	.	(84)	(99)	(116)	(123)	...	.	.	.	..
<i>Oceania :</i>											
Australia ¹⁸ { Spinning	67	85	113	112	123	118	...	.	.	.	.
Weaving	67	80	114	130	109	104	...	.	.	.	.
New Zealand ¹⁹ { Spinning	100	84	103	113	99	55	...	.	.	.	.
Weaving	91	100	120	106	82	69	...	.	.	.	.

¹ Index of raw-wool imports, compiled by the Dominion Bureau of Statistics.
² Basis : 1927-1929. Index of production of wool for weaving, compiled by the Direccion General de Estadistica.
³ Index compiled by the Federal Reserve Board on the basis of wool consumption, machinery activity, carpet- and rug-loom activity.
⁴ Basis : 1931. Indices based on figures of production of woollen yarn and tissues published by the Japanese Department of Commerce and Industry.
⁵ Annual indices compiled by the Institut für Konjunkturforschung, based on output of yarn from carded wool and output of woollen tissues.
⁶ Index based on figures of wool conditioned at Verviers and Dison, published by the Banque Nationale de Belgique. Figures of production of yarn up to 1929 published by the Ministère des Affaires Etrangères in *La Situation Economique de la Belgique 1920-1930* show exactly the same movement.
⁷ Indices based on figures of production of woollen yarn and cloth, published by the Statistiske Departement.
⁸ Indices based on figures of production of woollen yarn and tissues, published by the Central Statistical Bureau.
⁹ Index based on wool conditioned at Roubaix, Tourcoing and Mazamet and on loom activity, compiled by the Statistique Générale de la France.
¹⁰ Basis : 1927-1929. Indices based on production of woollen yarn and woollen goods, compiled by the Ungarisches Institut für Wirtschaftsforschung.
¹¹ Basis : 1928-1929. Index based on the activity of looms.
¹² Basis : 1927-1929. Indices based on figures of production of woollen yarn and cloth published by the Statistiske Centralbyrå.

(For notes 13 to 19, see following page.)

(Continuation of notes to Table 12.)

¹³ Indices based on number of workers employed at September 15th. Figures published by the Centraal Bureau voor de Statistiek.

¹⁴ Basis : 1927-1929. Indices based on figures of production of woollen yarn and tissues published by the Office Central de Statistique.

¹⁵ Annual index of the London and Cambridge Economic Service, based on wool, mohair, pulled wool, etc., retained.

¹⁶ Indices based on figures of production of woollen yarn and tissues, published by the Kommerskollegium.

¹⁷ Basis : 1927-1929. Index based on figures of production of woollen tissues, published in *Sowjetwirtschaft und Aussenhandel*.

¹⁸ Indices based on figures published by the Commonwealth Bureau of Census and Statistics, representing (a) scoured wool used by mills, (b) tweed, cloth and flannel produced. Years ending June 30th.

¹⁹ Indices based on figures of production (a) of woollen yarn, (b) of woollen tweed, cloth and flannel, published by the Census and Statistics Office. Economic years ending March 31st of following year.

Appendix VI. Table 13.

ACTIVITY IN THE NATURAL SILK INDUSTRY.

(1925-1929 = 100.)

Country	1925	1926	1927	1928	1929	1930	1931	1931						
								I	II	III	IV			
<i>America :</i>														
United States ¹	93	92	99	104	112	104	104	112	95	99	111			
												Deliveries and loom activity.	91	92	101	104	113	106	108	116	98	104	117
<i>Asia :</i>														
Japan ²	71	82	82	105	160	...	...	.	.	.	.
												Spinning	88	96	97	104	115	104	105	98	106	107	110
Weaving	.	.	.	.	.	.	.	.	.	.	.
												.	.	.
<i>Europe :</i>														
Germany ³	86	87	115	103	110	102	...	.	.	.	.
France ⁴	101	106	88	112	92	75	61	78	73	57	36			
Hungary ⁵	.	.	(93)	(101)	(107)	(129)	(154)	(147)	(162)	(136)	(171)			
			Weaving	(93)	(105)	(102)	(124)	(184)	(258)	(236)	(126)	(119)		
Italy ⁶	.	.	.	(97)	(103)	(91)	(85)	(88)	(88)	(87)	(78)			
Portugal ⁷	.	.	.	.	(1)	(100)	(181)	(221)	(179)	(192)	(133)
Poland ⁸	.	.	[63]	(92)	(108)	(102)	...	.	.	.	.
United Kingdom ⁹	*(78)	.	.	(92)	(113)	(116)	(114)	(119)	(123)	(120)	(111)	(122)		
				(a)	92	97	90	104	117	103	110	.	.	.
				(b)	86	77	92	119	127	112	116	115	113	118	118
Sweden ¹⁰	37	25	19	112	307	370	...	.	.	.	.
Switzerland ¹¹	.	.	.	(116)	(84)	(50)	(40)	(56)	(44)	(36)	(24)			

* 1924.

¹ Indices compiled by the Federal Reserve Board.

² Index based on figures of production of silk yarn, published by the Japanese Department of Commerce and Industry, and index based on figures published by the Mitsubishi Economic Research Bureau, representing the "amount of export silk piece-goods, inspected by the Prefectural Inspection Bureaus".

³ Annual index of silk weaving compiled by the Institut für Konjunkturforschung.

⁴ Index of the Statistique Générale de France, representing silk conditioned at Lyons.

⁵ Basis : 1927-1929. Indices of production of silk yarn and silk manufactures, compiled by the Ungarisches Institut für Wirtschaftsforschung.

⁶ Basis : 1928-1929. Index of activity in weaving based on ratio of loom hours worked to normal.

⁷ Basis : 1930. Index based on figures of production of silk yarn, published by the Direcção Geral de Estatística.

⁸ Basis : 1928-1929. Index based on figures of production of tissues of silk, half-silk, artificial silk and half-artificial silk, published by the Office Central de Statistique. Data for 1927 is not strictly comparable.

⁹ (a) Index of the Board of Trade, based on deliveries of natural silk for home consumption. Basis : 1924, 1927, 1928, 1929. (b) Annual and (c) quarterly indices of the London and Cambridge Economic Service, the former based on silk consumed and the latter on silk consumed and artificial silk produced.

¹⁰ Index of production of tissues wholly or half of natural silk, based on figures published by the Kommerskollegium.

¹¹ Basis 1928-1929. Index based on figures of silk conditioned at Zurich and Basle, published by the Banque Nationale Suisse.

Appendix VI. Table 14.

PRODUCTION OF ARTIFICIAL SILK.

Countries	Production in metric tons (000's)							1925-1929=100		Production as percentage of world total		
	1925	1926	1927	1928	1929	1930	*1931	1930	*1931	1925	1929	*1931
<i>North America*</i>	23,750	29,730	35,400	46,400	57,040	52,350	67,700	136.1	176.0	27.6	27.2	30.5
Canada*	210	860	1,130	2,000	1,700	2,450	2,425	207.6	205.5	0.2	0.8	1.1
United States of America	23,542	28,870	34,271	44,407	55,338	49,895	65,273	132.9	173.8	27.4	26.4	29.4
<i>South America</i> (Brazil) . . . . .	.	122	390	400	400	400	420	(122.0) ¹	(123.0) ¹	.	0.2	0.2
<i>Asia</i> (excl. U.S.S.R.)												
Japan*	1,451	2,268	4,763	7,485	12,247	16,329	20,550	289.4	364.2	1.7	5.8	9.3
<i>U.S.S.R.*</i>	100	100	100	100	300	600	600	428.9	428.9	0.1	0.1	0.3
<i>Europe</i> (excl. U.S.S.R.)*	60,700	69,200	99,600	120,000	139,570	130,170	132,350	133.1	135.3	70.6	66.7	59.7
Germany*	11,800	13,000	18,800	22,300	26,500	27,000	27,758	146.1	150.2	13.7	12.7	12.5
Austria	1,200	1,500	1,500	2,400	2,100	787	—	45.2	—	1.4	1.0	—
Belgium	5,000	6,000	7,500	6,800	7,300	5,300	4,500	81.3	69.0	5.8	3.5	2.0
Spain*	84	136	1,400	1,700	2,000	1,750	1,514	164.5	142.3	0.1	1.0	0.7
France*	6,500	7,940	12,700	18,500	22,400	25,000	20,190	183.7	148.4	7.6	10.7	9.1
Greece . . . . .	.	23	14	.	45	35	40	(129.6) ²	(148.1) ²	.	.	.
Hungary*	300	300	400	350	300	240	(82) ³	72.7	(24.9) ³	0.3	0.1	.
Italy	13,850	16,682	24,406	25,999	32,342	30,139	34,585	133.0	152.7	16.1	15.5	15.6
Netherlands*	4,000	6,120	7,300	8,500	9,500	7,890	8,480	111.4	119.7	4.7	4.5	3.8
Poland	627	932	1,600	2,382	2,730	2,610	3,400	157.8	205.6	0.7	1.3	1.5
United Kingdom	13,500	11,570	17,600	23,100	26,600	22,510	24,544	121.8	132.9	15.7	12.7	11.1
Sweden	105	103	138	151	156	211	261	161.1	199.2	0.1	0.1	0.1
Switzerland*	2,800	3,630	4,690	5,100	5,500	4,200	4,470	96.7	102.9	3.7	2.6	2.0
Czechoslovakia	957	1,270	1,550	2,700	2,100	2,500	2,570	145.8	149.9	1.1	1.0	1.2
World*	86,000	101,420	140,250	174,370	209,560	199,850	221,620	140.4	155.7	100.0	100.0	100.0

Sources: National official statistics; statistics of Producers' Organisations; *International Cotton Bulletin*.

* Estimate.

¹ Basis 1926-1929.

² Basis 1926, 1927, 1929.

³ Rough estimate.

Appendix VI. Table 15.

ACTIVITY IN THE LINEN, HEMP AND JUTE INDUSTRIES, ETC.
(1925-1929 = 100.)

Country	1925	1926	1927	1928	1929	1930	1931	
<i>America :</i>								
United States of America ¹	Jute	80	85	114	112	109	76	80
	Flax	95	123	81	100	102	119	56
	Hemp	156	112	83	82	68	71	50
	Manila	106	92	92	105	105	67	69
	Sisal and henequen	103	114	85	78	119	106	51
	Kapok	116	96	111	90	86	98	95
Total	99	96	97	100	108	79	69	
<i>Asia :</i>								
India ² : Exports of jute bags and tissues	93	96	99	104	107	95	73	
Japan ³ : Hemp, jute and flax yarns	84	76	59	114	167	...	...
<i>Europe :</i>								
Germany ⁴	Linen industry	123	81	133	85	78	69	61
	Linen-spinning	128	85	133	82	72	69	...
	Linen-weaving	119	79	133	87	82	68	...
	Hemp-spinning	87	82	118	107	106	86	...
Belgium ⁵	Jute-spinning	102	80	102	113	103	67	...
	... . . . .	137	91	80	69	124	...	...
Denmark ⁶	Linen-weaving	80	83	104	97	136	158	...
	Jute-spinning	78	68	158	115	81	105	...
Finland ⁷	Linen-spinning	96	82	100	113	108	93	...
	Linen-weaving	106	105	102	97	90	68	...
	Jute-spinning . . . . .	.	.	(61)	(116)	(123)	(98)	...
Hungary ⁸	Jute-weaving . . . . .	.	.	(50)	(114)	(136)	(91)	...
	Jute-weaving	86	62	105	117	130	120	75
Italy ⁹	Linen- and hemp-spinning . . . . .	.	.	.	(100)	(100)	(90)	(84)
	Linen- and hemp-weaving . . . . .	.	.	.	(97)	(103)	(92)	(81)
Norway ¹⁰	Jute-weaving . . . . .	.	.	.	(98)	(102)	(87)	(73)
	Hemp-spinning . . . . .	.	.	(88)	(105)	(107)	(112)	...
Poland ¹¹	Linen- and jute-weaving . . . . .	.	.	(86)	(92)	(122)	(110)	...
	Linen-spinning . . . . .	.	.	(82)	(111)	(107)	(84)	...
United Kingdom ¹²	Jute-spinning . . . . .	.	.	(80)	(105)	(115)	(82)	...
	Hemp-spinning . . . . .	.	.	(52)	(162)	(86)	(83)	...
	Linen-weaving . . . . .	.	.	(82)	(119)	(100)	(97)	...
Sweden ¹³	Jute-weaving . . . . .	.	.	(82)	(104)	(114)	(87)	...
	Hemp-weaving . . . . .	.	.	(10)	(169)	(122)	(196)	...
	Jute, hemp and linen	97	73	121	101	107	78	78
U.S.S.R.: ¹⁴ Linen tissues	Linen- and hemp-spinning	99	101	103	107	90	89	...
	Linen- and hemp-weaving	98	93	102	106	102	100	...
	Jute-spinning	94	91	97	105	113	112	...
Jute-weaving	99	89	98	103	110	110	...	

¹ Indices based on imports of unmanufactured fibres.
² Index based on exports of jute sacks and tissues.
³ Index based on production figures published by the Japanese Department of Commerce and Industry.
⁴ Institut für Konjunkturforschung.
⁵ Index based on exports of linen yarn: *La situation économique de la Belgique* 1920-1930.
⁶ Indices based on production figures published by the Statistiske Departement.
⁷ Indices based on production figures published by the Central Statistical Bureau. Jute: basis 1927-1929.
⁸ Ungarisches Institut für Wirtschaftsforschung.
⁹ Basis 1928-1929. Indices of ratio of spindle and loom hours worked to normal. Annual average of figures for last week of each month.
¹⁰ Basis 1927-1929. Indices based on production figures published by the Statistiske Centralbyrå.
¹¹ Basis 1927-1929. Indices based on production figures published by the Office Central de Statistique.
¹² London and Cambridge Economic Service; quantities of raw material retained, plus home crops.
¹³ Indices based on production figures published by the Kommerskollegium.
¹⁴ Basis 1927-1929. Index based on figures of production of linen tissues, published in *Sowjetwirtschaft und Aussenhandel* and *Cotton* (Manchester).

Appendix VI. Table 16 (a).

CONSUMPTION OF CRUDE RUBBER.

Country	Tons (000's)							1925-1929 =100		Percentage of world total		
	1925	1926	1927	1928	1929	1930	1931	1930	1931	1925	1929	1931
United States of America ¹	385	358	373	442	466	371	348	92	86	70	59	52
Canada	19	20	26	30	35	28	23	108	88	3	5	3
Japan	13	18	20	24	34	33	38	151	174	2	5	6
Germany	35	22	38	35	50	47	36	131	100	6	6	5
Belgium	3	3	6	7	10	11	10	190	172	1	1	2
France	36	39	38	41	62	60	60	139	139	7	8	9
Italy	11	10	11	12	16	18	10	150	83	2	2	2
United Kingdom	30	41	45	48	72	75	76	159	161	5	9	11
Australia	5	9	9	9	15	5	7	53	74	1	2	1
Other Countries ²	15	14	24	19	25	37	61	191	314	3	3	9
World	552	534	590	667	785	685	669	109	107	100	100	100
World, excluding U.S.A.	167	176	217	225	319	314	321	142	145	30	41	48

Source: *The World Rubber Position* (W. H. Rickinson and Son, London).

¹ United States of America: Consumption of reclaimed rubber (tons, 000's). (Source: the *Statist*, 6.II.1932) 164 189 203 224 157 127
As percentage of crude 44 50 45 47 41 36

² Including the Union of Soviet Socialist Republics, for which the *Statist* gives the following figures (tons, 000's): 1929: 13; 1930: 18; 1931: 26.

Appendix VI. Table 16 (b).

ACTIVITY IN THE RUBBER INDUSTRY.

(1925-1929 = 100.)

Country.	1925	1926	1927	1928	1929	1930	1931	1931			
								I	II	III	IV
<i>America :</i>											
Canada ¹	75	76	100	115	134	109	95	100	105	97	79
United States of America ²	92	92	95	114	107	79	76	74	84	76	66
<i>Europe :</i>											
Germany ³	106	57	111	105	121	109	...	.	.	.	.
Denmark ⁴ {	100	89	77	102	132	127	...	.	.	.	.
Other rubber products	109	97	83	91	120	120	...	.	.	.	.
Total	87	89	75	96	152	259	...	.	.	.	.
Finland ⁵	81	97	88	95	139	145	145	149	149	145	137
France ⁶	86	78	91	128	117	133	...	.	.	.	.
Netherlands ⁷ . . . . .	.	.	.	(86)	(114)	(109)	...	.	.	.	.
Poland ⁸ {	*(49)	.	(96)	(103)	(153)	(159)	(165)	(185)	(153)	(150)	(174)
Other rubber products	74	72	100	99	155	159	163	.	.	.	.
United Kingdom ⁹ {	87	82	95	114	122	100	...	.	.	.	.
Board of Trade . . . . .	.	.	.	.	.	.	.	.	.	.	.
London and Cambridge Economic Service . . . . .	.	.	.	.	.	.	.	.	.	.	.
Sweden ¹⁰ . . . . .	.	.	(83)	(100)	(116)	(113)	(141)	.	.	.	.
U.S.S.R. ¹¹ . . . . .	.	.	.	.	.	.	.	.	.	.	.

* 1924.

¹ Index based on figures of import of crude rubber, published by the Dominion Bureau of Statistics.

² Index of production of rubber tyres and inner-tubes compiled by the Federal Reserve Board.

³ Annual index of the Institut für Konjunkturforschung.

⁴ Index of values of production based on figures published by the Statistiske Departement.

⁵ Index of production of rubber footwear, based on figures published by the Central Statistical Bureau.

⁶ Index based on consumption of crude rubber compiled by the Statistique Générale de la France.

⁷ Indices based on figures of production of tyres and inner-tubes published by the Centraal Bureau voor de Statistiek.

⁸ Index of production of rubber footwear, basis 1928-1929, and index of production of other rubber goods, basis 1929, based on figures published by the Office Central de Statistique.

⁹ Board of Trade : basis 1924, 1927, 1928, 1929. Index of crude rubber available for manufacture. London and Cambridge Economic Service : Index based on quantities of rubber, gutta-percha and balata retained in the United Kingdom.

¹⁰ Index based on figures of values of production of rubber goods at 1913 prices published by the Kommerkollegium.

¹¹ Basis : 1927-1929. Index of production of rubber shoes, based on figures published in *Sowjetwirtschaft und Ausserhandel* and in *Moskauer Rundschau*.

Appendix VI. Table 17.

ACTIVITY IN THE LEATHER AND BOOT AND SHOE INDUSTRIES.

(1925-1929 = 100.)

Country	1925	1926	1927	1928	1929	1930	1931	1931			
								I	II	III	IV
<i>Africa :</i>											
Union of South Africa ¹											
Leather	88	96	108	102	107	112	...	.	.	.	.
Boots, shoes and slippers . . .	86	97	104	102	110	115	...	.	.	.	.
<i>America :</i>											
Canada ² . . . . .	.	(96)	(100)	(103)	(101)	(88)	(91)	(82)	(103)	(98)	(81)
Chile ³ . . . . .	.	.	(91)	(94)	(111)	(105)	...	.	(70)	(40)	(37)
United States of America ⁴											
Leather and products, total.	95	97	102	102	104	93	91	87	102	97	79
Boots and shoes	95	96	101	102	107	89	93	88	107	99	79
<i>Asia :</i>											
Japan ⁵	71	88	122	121	98	...	...	.	.	.	.
<i>Europe :</i>											
Germany ⁶											
Leather production	101	89	118	101	91	82	...	.	.	.	.
Leather manufactures	104	85	121	100	89	77	...	.	.	.	.
Leather and footwears	100	94	111	99	96	91	*79	.	.	.	.
Boots and shoes (monthly)	85	74	118	109	113	110	102	104	111	94	99
Denmark ⁷											
Index of the leather industry . . .	.	.	(99)	(97)	(103)	(112)	...	.	.	.	.
Production of leather footwear . . .	95	100	100	99	106	123	...	.	.	.	.
Finland ⁸	91	94	100	115	100	96	...	.	.	.	.
France ⁹	89	110	88	111	102	94	91	94	95	89	85
Hungary ¹⁰ . . . . .	.	.	(98)	(109)	(93)	(96)	(94)	(90)	(96)	(118)	(72)
Netherlands ¹¹											
Leather industry, workers employed . . . . .	.	.	.	(101)	(99)	(100)	...	.	.	.	.
Production of boots and shoes . . .	84	94	100	111	111	115	...	.	.	.	.
Norway ¹² . . . . .	.	.	(92)	(103)	(106)	(126)	...	.	.	.	.
Poland ¹³											
Index of the leather industry	97	80	102	117	103	97	84	89	86	79	81
Production of boots and shoes . . . .	.	.	(84)	(108)	(108)	(88)	...	.	.	.	.
Portugal ¹⁴ . . . . .	.	.	.	.	(100)	(81)	(81)	(65)	(81)	(92)	(88)
United Kingdom ¹⁵ : Board of Trade . . .	†(98)	.	106	100	97	99	97	99	97	94	99
Sweden ¹⁶											
Leather	95	99	108	103	94	102	...	.	.	.	.
Boots and shoes	102	99	104	102	94	113	...	.	.	.	.
Czechoslovakia ¹⁷	94	85	98	105	118	109	112	107	98	121	121
U.S.S.R. ¹⁸ . . . . .	.	.	(57)	(90)	(153)	(252)	(282)	.	.	.	.
<i>Oceania :</i>											
Australia ¹⁹											
Tanning	98	101	106	101	94	94	...	.	.	.	.
Boots, shoes and slippers	91	97	106	101	104	101	...	.	.	.	.
New Zealand ²⁰											
Leather	102	94	99	94	111	120	...	.	.	.	.
Boots, shoes and slippers	98	97	100	94	111	115	...	.	.	.	.

(For footnotes, see following page.)

* Provisional.

† 1924.

¹ Indices of production of (a) leather (sole and upper) and (b) boots, shoes and slippers, based on figures published by the Office of Census and Statistics. Economic years ending June 30th.

² Basis 1926-1929. Index of production of leather boots and shoes, based on figures published by the Dominion Bureau of Statistics.

³ Basis: 1927-1929. Index of production of footwear compiled by the Direccion General de Estadistica. Second quarter 1931=average January, May and June.

⁴ Indices compiled by the Federal Reserve Board.

⁵ Index of production of cow, calf and horse leather based on figures published by the Department of Commerce and Industry.

⁶ Annual and monthly indices compiled by the Institut für Konjunkturforschung.

⁷ Basis 1927-1929. Index of activity in the leather industry compiled by the Statistische Departement, and index of production of leather boots and shoes based on figures published by the same authority.

⁸ Index of production of leather boots and shoes (1925: shoes only) based on figures published by the Central Statistical Bureau.

⁹ Index based on consumption of raw hides compiled by the Statistique Générale de la France.

¹⁰ Basis: 1927-1929. Index of production of boots and shoes compiled by the Ungarisches Institut für Wirtschaftsforschung.

¹¹ Indices of number of workers employed at September 15th in the leather industry (basis 1928-1929), and index of production of boots and shoes, based on figures published by the Centraal Bureau voor de Statistiek.

¹² Basis 1927-1929. Index of production of boots and shoes (including slippers) based on figures published by the Statistiske Centralbyrå.

¹³ Index of activity in the leather industry based on numbers of hours worked compiled by the Institut de Recherches sur le mouvement des affaires, and index of production of boots and shoes (excluding hand-made; basis 1927-1929) based on figures published by the Office Central de Statistique.

¹⁴ Basis 1930. Index of production of boots and shoes based on figures published by the Direcção Geral de Estatística.

¹⁵ Index of activity in the leather and boot and shoe industries (basis 1924, 1927, 1928, 1929) compiled by the Board of Trade.

¹⁶ Indices of values of leather and boots and shoes produced at 1913 prices, based on figures published by the Kommerskollegium.

¹⁷ Provisional index of activity in the leather industry compiled by Dr. Karel Maiwald.

¹⁸ Basis: 1927-1929. Index of production of boots and shoes, based on figures published in *Sowjetwirtschaft und Aussenhandel*.

¹⁹ Indices of tanning (numbers of hides, pelts and skins treated) and of production of boots and shoes (including slippers) based on figures published by the Commonwealth Bureau of Census and Statistics. Economic years ending June 30th.

²⁰ Indices of production of leather and of boots, shoes and slippers based on figures published by the Census and Statistics Office. Economic years ending March 31st of following year.

Appendix VI. Table 18 (a).

ACTIVITY IN THE TIMBER INDUSTRY.

(1925-1929 = 100.)

Country	1925	1926	1927	1928	1929	1930	1931	1930
								as percentage of 1929
<i>America :</i>								
Canada ¹	110	109	104	88	89	78	48	87
United States of America ²	107	104	97	96	96	68	43	70
<i>Europe :</i>								
Austria ³	90	81	101	126	102	83	56	81
Denmark ⁴ {
Finland ⁵ {
Norway ⁶ {
Poland ⁷ {
Sweden ⁸ {
U.S.S.R. ¹¹ {
New Zealand ¹² {
Yugoslavia ¹⁰ {
U.S.S.R. ¹¹ {
Czechoslovakia ⁹ {
Yugoslavia ¹⁰ {
U.S.S.R. ¹¹ {
U.S.S.R. ¹¹ {
U.S.S.R. ¹¹ {
U.S.S.R. ¹¹ {
U.S.S.R. ¹¹ {
U.S.S.R. ¹¹ {

¹ Index of export of lumber compiled by the Dominion Bureau of Statistics.

² Index of lumber cut compiled by the Federal Reserve Board.

³ Index based on figures of exports of sawn timber.

⁴ Statistiske Departement: index of activity in the wood industry (basis 1927-1929) and index based on production of planks and timber (basis 1926-1929).

⁵ Indices of production of sawn timber based on figures published by the Central Statistical Bureau.

⁶ Basis 1927-1929. Index of activity in the timber industry compiled by the Statistiske Centralbyrå.

⁷ Index of activity in the timber industry, based on number of hours worked, compiled by the Institut de Recherches sur le mouvement des affaires and index of production of sawn timber based on figures published by the Office Central de Statistique (basis 1928-1929).

⁸ Index of the Kommerskollegium covering total production in the timber industry and index of the *Svensk Finanstidning* relating chiefly to exports of certain classes of sawn timber.

⁹ Provisional index of activity in the timber industry compiled by Dr. Karel Maiwald.

¹⁰ Index of exports of sawn timber.

¹¹ Index of exports of timber based on figures published in *Sowjetwirtschaft und Aussenhandel*. Economic years ending September 30th.

¹² Indices based on surface-area of rough sawn timber and of planed flooring, skirting, moulding, etc. Figures published by the Census and Statistics Office. Economic years ending March 31st of following year.

Appendix VI. Table 13 (b).

EXPORTS OF SAWN SOFTWOOD.

Country	In standards ¹ (000's omitted)							1925-1929 =100		Percentages of world total		
	1925	1926	1927	1928	1929	1930	1931	1930	1931	1925	1929	1931
<i>North America</i>	2,300	2,359	2,422	2,341	2,322	1,654	*1,133	70.4	48.2	34.3	30.8	22.7
Canada	1,172	1,117	1,089	950	959	688	*450	65.1	42.6	17.4	12.7	9.0
United States of America	1,128	1,242	1,333	1,391	1,363	966	683	74.8	52.9	16.9	18.1	13.7
<i>U.S.S.R.</i>	440	334	434	558	811	*950	*950	184.3	184.3	6.6	10.7	19.1
<i>Europe (excluding U.S.S.R.)</i>	3,859	3,985	4,626	4,425	4,284	*3,571	*2,814	84.3	66.4	57.4	56.8	56.5
Austria	385	348	420	432	378	318	250	81.0	63.7	5.7	5.0	5.0
Estonia	57	68	64	79	60	46	*35	70.1	53.4	0.8	0.8	0.7
Finland	956	1,037	1,180	1,049	1,101	823	735	77.3	69.0	14.2	14.6	14.8
Latvia	108	94	184	196	195	196	*125	126.1	80.4	1.6	2.6	2.6
Lithuania	6	9	17	18	21	17	*12	119.7	84.5	0.1	0.3	0.2
Norway	130	127	96	109	120	103	65	88.4	55.8	1.9	1.6	1.3
Poland	360	497	660	466	296	311	252	68.2	55.3	5.4	3.9	5.1
Roumania	410	402	420	465	431	322	*270	75.7	63.4	6.1	5.7	5.4
Sweden	942	867	963	995	1,123	939	701	96.0	71.7	14.0	14.9	14.1
Czechoslovakia	193	149	288	173	109	100	70	54.8	38.4	2.9	1.4	1.4
Yugoslavia	193	194	194	311	309	252	170	104.9	70.8	2.9	4.1	3.4
Other Countries	119	193	140	132	141	*144	*129	99.3	89.0	1.8	1.9	2.6
<i>Other countries (South America, Asia and Australia)</i>	114	103	126	*130	*130	*100	*80	82.9	66.3	1.7	1.7	1.6
Total World	6,713	6,781	7,608	*7,454	*7,547	*6,275	*4,977	86.9	68.9	100	100	100

* Provisional figures.

Source: Official trade figures and estimates as compiled by Thorsten Streyffert, Stockholm, in *Index (Svenska Handelsbanken, Stockholm)*, Vol. VII, No. 75, March 1932.

¹ One standard of sawn wood = 1,980 board feet (United States of America) = 3.3 loads (United Kingdom) = 165 English cubic feet = 4.672 cubic metres (1 cubic metre = 35.32 cubic feet).

Appendix VI. Table 19.
ACTIVITY IN THE PAPER AND PRINTING INDUSTRIES.
 (1925-1929 = 100.)

Country	1925	1926	1927	1928	1929	1930	1931	1931			
								I	II	III	IV
<i>America :</i>											
Canada ¹	72	89	98	113	129	118	103	101	114	99	99
United States of America ²	93	99	97	103	108	98	92	94	94	92	86
	95	99	96	103	107	95	87	90	90	87	80
	87	98	100	104	111	104	100	102	101	98	96
Chile ³	.	.	(88)	(95)	(120)	(142)	(113)	(123)	(118)	(79)	(130)
	.	.	(36)	(137)	(142)	(173)	(68)	(118)	(113)	(27)	(15)
<i>Asia :</i>											
Japan ⁴	87	90	89	106	128	...	...	.	.	.	.
	80	89	98	112	121	117	114	113	116	115	112
<i>Europe :</i>											
Germany ⁵	88	86	105	110	111	104	96	98	103	95	90
	92	82	108	110	108	102	88	87	95	84	86
	91	88	104	111	106	105	...	.	.	.	.
Austria ⁶	90	93	100	109	108	99	99	95	103	103	95
	92	99	104	103	101	109	55	52	62	61	45
Belgium ⁷	88	93	98	108	113	103	104	103	103	107	103
Denmark ⁸	90	101	104	103	101	106	...	.	.	.	.
	81	88	97	117	118	127	...	.	.	.	.
Finland ⁹	92	90	99	108	111	112	...	.	.	.	.
	100	101	86	97	116	112	...	.	.	.	.
France ¹⁰	92	100	92	97	118	145	120	122	122	122	115
Italy ¹¹	.	(104)	(91)	(99)	(105)	(105)	(100)	(100)	(100)	(98)	(102)
	95	85	101	105	114	106	63	90	11	36	114
Norway ¹²	.	.	(97)	(100)	(103)	(107)	...	.	.	.	.
Netherlands ¹³	83	89	97	110	120	123	...	.	.	.	.
Poland ¹⁴	88	86	98	114	113	110	97	100	97	96	93
	93	84	98	111	115	112	98	106	99	95	92
Portugal ¹⁵	.	.	.	.	(100)	(120)	(104)	(125)	(94)	(83)	(112)
United Kingdom ¹⁶	88	94	105	94	119	109	102	90	84	108	127
	91	97	99	96	116	105	...	.	.	.	.
Sweden ¹⁷	86	93	96	105	120	117	...	.	.	.	.
	87	94	100	105	114	118	...	.	.	.	.
	89	97	100	97	116	106	114	114	111	115	115
Czechoslovakia ¹⁸	88	90	105	112	104	99	100	93	106	102	97
	90	97	99	103	111	108	103	105	99	102	107
U.S.S.R. ¹⁹	83	88	95	93	142	158	...	.	.	.	.
<i>Oceania :</i>											
New Zealand ²⁰	87	95	103	102	112	109	...	.	.	.	.

(For footnotes, see following page.)

- ¹ Index of newsprint production compiled by the Dominion Bureau of Statistics.
- ² Indices of paper and printing (general), of production of wood-pulp, paper and paper-boards, and of printing (newsprint consumption) compiled by the Federal Reserve Board.
- ³ Original basis 1927-1929. Indices of production of paper and paper-boards compiled by the Dirección General de Estadística.
- ⁴ Index of production of paper-boards based on figures published by the Department of Commerce and Industry; index of paper production published by the Mitsubishi Economic Research Bureau.
- ⁵ Indices of production of paper and paper-boards, and of activity in the printing industry, compiled by the Institut für Konjunkturforschung.
- ⁶ Indices of production of paper and paper-boards based on figures published by the Bundesamt für Statistik.
- ⁷ Index of production of paper and paper-boards based on figures published by the Banque Nationale de Belgique.
- ⁸ Indices of production of paper and paper-boards based on figures published by the Statistische Departement.
- ⁹ Indices of production of newsprint and paper-boards based on figures published by the Central Statistical Bureau.
- ¹⁰ Index based on the apparent consumption of chemical and mechanical wood-pulp, compiled by the Statistique Générale de la France.
- ¹¹ Basis 1926-1929=100. Index of production of paper and paper-boards compiled by the Istituto Centrale di Statistica.
- ¹² Index of production of paper and paper-boards based on figures published by the Statistiske Centralbyrå (1931, from April to September, labour dispute); index of activity in the printing industry (basis 1927-1929), compiled by the same authority.
- ¹³ Index of production of paper, based on figures published by the Centraal Bureau voor de Statistiek.
- ¹⁴ Indices of activity in the paper and the printing industries, based on total numbers of hours worked, compiled by the Institut de Recherches sur le mouvement des affaires.
- ¹⁵ Basis 1929. Index of production of paper based on figures published by the Direcção Geral de Estatística.
- ¹⁶ Index of estimated production of paper from esparto and pulp, compiled by the London and Cambridge Economic Service.
- ¹⁷ Indices of production of paper and paper-boards, and of value of output of the printing industry at 1913 prices, based on figures published by the Kommerskollegium. Index of paper production compiled by the *Svensk Finanstidning*.
- ¹⁸ Provisional indices of production in the paper and the printing industries, compiled by Dr. Karel Maiwald.
- ¹⁹ Index of production of paper and paper-boards based on figures published in the *Statistical Year-Book* of the League of Nations. Economic years ending September 30th.
- ²⁰ Index of printing (consumption of paper for newspapers and for job-printing) based on figures published by the Census and Statistics Office. Economic years ending March 31st of following year.

Appendix VII. Table 1.

WHOLESALE PRICE INDICES.

Country :	Austria	British India Calcutta	France	Germany	Great Britain	Hungary	Netherlands	Switzerland	U.S.A.	Yugoslavia
Source :	Bundesamt für Statistik	Dept. of Commercial Intelligence and Statistics	Statistique générale de la France	Statistisches Reichsamt.	Board of Trade	Central Statistical Office	Centraal Bureau voor de Statistiek	Département Fédéral de l'Economie publique	Bureau of Labor Statistics	The National Bank of the Kingdom of Yugoslavia
Base :	I-VI. 1914	VII. 1914	1913	1913	1913	1913	1901- 1910	VII. 1914	1926	1926
1929										
I	128	145	657	139	138	132	164	143	96	104
II	130	144	660	139	138	136	164	143	95	106
III	133	143	653	140	140	136	164	142	96	107
IV	134	140	648	137	139	135	161	140	96	106
V	135	139	643	136	136	123	159	139	95	104
VI	134	138	629	135	136	122	157	139	95	101
VII	132	142	624	138	137	119	158	143	97	100
VIII	132	143	598	138	136	114	159	143	96	99
IX	128	143	608	138	136	109	158	142	96	96
X	127	140	607	137	136	111	157	142	95	97
XI	125	137	603	136	134	107	153	140	94	95
XII	123	134	596	134	133	107	151	139	93	94
Average . . .	130	141	627	137	137	121	159	141	95	101
1930										
I	125	131	576	132	131	106	146	136	93	94
II	123	126	567	129	128	104	142	133	91	92
III	121	125	558	126	125	100	137	131	90	91
IV	119	123	548	127	124	96	137	129	90	90
V	118	121	546	126	122	96	133	128	89	89
VI	121	116	540	125	121	94	131	126	87	87
VII	119	115	558	125	119	99	129	126	84	89
VIII	118	114	560	125	118	93	127	126	84	88
IX	115	111	556	123	116	92	125	123	84	83
X	112	107	552	120	113	94	124	122	83	81
XI	110	104	551	120	112	92	123	120	81	79
XII	107	101	541	118	109	90	119	117	80	78
Average . . .	117	116	554	125	120	96	131	127	86	87
1931										
I	105	98	541	115	107	91	117	115	78	76
II	107	99	538	114	106	92	115	115	77	75
III	107	100	539	114	106	94	115	114	76	75
IV	108	98	540	114	106	93	113	112	75	76
V	107	97	520	113	104	95	113	111	73	75
VI	110	93	518	112	103	93	110	110	72	74
VII	114	93	500	112	102	95	108	110	72	74
VIII	110	92	488	110	100	92	104	108	72	74
IX	108	91	473	109	99	96	101	106	71	72
X	109	96	457	107	104	97	99	106	70	70
XI	112	97	447	107	106	99	99	106	70	69
XII	112	98	442	104	106	99	94	103	69	67
Average . . .	109	96	502	111	104	95	108	110	73	73
1932										
I	114	97	439	100	106	98	93	101	67	68
II	112	97	446	100	105	99	92	100	66	67
III	113	94	444	100	105	99	90	99	66	68
IV	112	...	439	98	102	97	88	98	66	66
V	116	...	438	97	101	97	86	96	64	65

Appendix VII. Table 2.

COST-OF-LIVING INDICES.

Country :	Austria	British India	France	Germany	Great Britain	Netherlands	Switzerland	U.S.A.
Source :	Bundesamt für Statistik	Labour Office, Bombay	Statistique générale de la France	Statistisches Reichsamt	Ministry of Labour	Centraal Bureau voor de Statistiek	Département Fédéral de l'Economie publique	Bureau of Labor Statistics
Base :	VII. 1914	VII. 1914	VII. 1914	X. 1913 I, IV, VII 1914	VII. 1914	1911-1913	VI. 1914	VII. 1914
1929								
I	109	168	—	153	165	—	161	100
II	111	167	—	154	166	—	161	100
III	110	168	111	157	162	169	161	99
IV	109	167	—	154	161	—	159	99
V	109	165	—	154	160	—	160	99
VI	111	165	113	153	161	169	161	99
VII	112	167	—	154	163	—	161	100
VIII	113	168	—	154	164	—	162	101
IX	113	168	113	154	165	167	163	101
X	113	168	—	154	167	—	163	101
XI	113	169	—	153	167	—	162	101
XII	113	169	115	153	166	167	162	100
Average . .	111	167	113	154	164	168	161	100
1930								
I	113	165	—	152	164	—	161	99
II	112	163	—	150	161	—	160	99
III	111	160	115	149	157	163	159	98
IV	111	159	—	147	155	—	158	98
V	111	159	—	147	154	—	158	97
VI	113	159	116	148	155	162	158	97
VII	112	158	—	149	157	—	159	95
VIII	113	154	—	149	157	—	159	95
IX	110	154	120	147	156	162	159	95
X	110	149	—	145	157	—	158	95
XI	110	144	—	144	155	—	157	94
XII	108	137	121	142	153	157	156	93
Average . .	111	154	118	147	158	161	158	96
1931								
I	106	132	—	140	152	—	156	91
II	105	127	—	139	150	—	155	90
III	105	125	120	138	147	154	153	89
IV	104	125	—	137	147	—	151	88
V	104	124	—	137	145	—	150	87
VI	106	123	120	138	147	154	150	86
VII	107	122	—	137	145	—	150	86
VIII	107	122	—	135	145	—	149	86
IX	107	122	115	134	145	151	149	86
X	108	122	—	133	146	—	148	85
XI	108	122	—	132	148	—	147	84
XII	108	123	108	130	147	145	145	83
Average . .	106	124	116	136	147	151	150	87
1932								
I	109	124	—	125	147	—	144	81
II	108	124	—	122	146	—	142	80
III	108	125	108	122	144	141	142	80
IV	107	122	—	122	143	—	140	79
V	107	120	—	121	142	—	139	...

Appendix VII. Table 3.

PRICE INDICES OF IMPORTED, DOMESTIC AND EXPORTED GOODS.

Country :	(a)								(b)					
	Industrialised States								Raw Material Producing States					
	Czechoslovakia		France		Germany		Sweden		Latvia		Netherlands Indies		Yugoslavia	
	Im-ported Goods	Home Goods	Im-ported Products	Na-tional Products	Im-ported Ind. Raw Mat.	Do-mestic Ind. Raw Mat.	Im-ported Goods	Do-mestic Goods	Im-ported Goods	Ex-ported Goods	Im-ported Goods	Ex-ported Goods	Im-ported Goods	Ex-ported Goods
Source :	Central Statistical Office		Statistique générale de la France		Institut für Konjunkturforschung		Svenska Handelsbanken		Statistical Office		Central Kantoor voor de Statistiek te Bataviacentrum		Statistical Department of the National Bank	
Base :	VII. 1914		VII. 1914		1913		1913		1913		1913		1926	
1929														
I	138	138	651	639	132	135	127	145	112	168	156	124	95	119
II	138	138	658	648	131	135	133	145	117	166	156	124	95	119
III	138	140	665	647	133	135	132	143	116	163	156	127	95	122
IV	141	139	625	648	130	135	126	143	110	164	155	124	94	121
V	136	137	614	649	126	135	123	143	108	162	156	127	94	118
VI	134	133	604	635	125	136	123	142	107	158	156	123	93	117
VII	134	134	603	639	124	136	126	143	108	155	156	127	91	112
VIII	134	133	595	617	123	136	127	142	109	154	155	124	90	111
IX	133	131	581	626	123	137	125	142	109	153	155	123	88	108
X	131	130	562	624	121	137	123	142	107	153	154	121	88	112
XI	128	130	540	627	118	137	121	141	106	150	154	120	87	108
XII	126	128	530	620	117	136	120	140	105	158	153	111	87	105
Average.	134	134	602	635	125	136	126	143	110	158	155	123	91	114
1930														
I	125	128	521	606	116	136	116	138	103	149	153	105	85	105
II	124	126	514	611	112	136	110	137	98	146	152	100	85	102
III	122	123	501	600	109	135	106	134	97	143	150	98	83	102
IV	121	123	495	595	108	135	106	133	97	145	149	95	83	100
V	118	123	485	590	107	134	104	132	96	142	148	94	81	99
VI	116	122	470	585	104	132	102	131	94	140	147	88	80	95
VII	114	123	461	598	100	131	99	129	92	139	146	82	80	97
VIII	111	122	444	599	98	129	98	129	90	134	145	81	79	93
IX	108	119	428	595	95	129	96	128	88	128	143	79	78	86
X	107	117	408	581	90	128	94	126	87	123	141	79	77	83
XI	105	117	395	565	89	127	93	125	84	120	140	78	75	80
XII	104	115	377	565	86	124	93	125	84	111	139	79	73	79
Average.	115	121	458	591	101	131	101	131	97	136	146	88	80	94
1931														
I	101	114	364	567	83	122	90	122	86	107	132	73	73	76
II	98	114	375	557	82	121	88	120	87	106	126	72	71	75
III	99	113	370	560	83	120	89	120	86	108	122	72	71	74
IV	99	116	365	566	82	118	87	119	84	107	118	70	72	76
V	97	116	350	552	79	118	85	118	83	106	116	68	70	75
VI	95	114	365	539	78	117	84	117	82	104	115	67	70	74
VII	96	118	347	532	79	117	84	115	82	105	113	66	69	75
VIII	94	114	335	521	75	117	81	115	81	106	113	65	68	75
IX	92	111	316	504	72	117	80	113	81	102	110	62	67	71
X	91	111	314	484	71	116	83	113	80	95	107	61	66	69
XI	92	110	313	475	71	116	89	113	81	89	107	60	67	68
XII	90	109	477	471	69	113	91	113	82	86	105	57	65	67
Average.	95	113	358	527	77	118	86	117	83	102	115	66	69	73
1932														
I	89	107	300	477	68	107	91	111	87	81	103	56	65	66
II	88	106	304	486	67	106	92	111	88	88	102	58	64	65
III	90	106	308	493	65	105	92	111	88	90	101	58	66	67
IV	89	105	301	494	63	104	93	110	...	...	...	...	...	...
V	87	104	294	492	...	...	93	110	...	...	...	...	...	...

Appendix VII. Table 4.

PRICE INDICES OF CARTELLISED AND NON-CARTELLISED INDUSTRIAL RAW MATERIALS AND SEMI-MANUFACTURED GOODS.

Country :	Austria		Germany	
Source :	Österreichisches Institut für Konjunkturforschung		Institut für Konjunkturforschung	
Base :	1923-1931 = 100		1926 = 100	
	Cartellised	Non-cartellised	Cartellised	Non-cartellised
1929				
I	99	102	105	102
II	100	101	105	101
III	100	105	105	101
IV	100	105	105	100
V	101	101	105	97
VI	101	104	105	97
VII	100	105	105	97
VIII	99	96	105	97
IX	99	96	105	97
X	98	95	105	95
XI	97	94	105	93
XII	97	94	105	92
Average	99	100	105	97
1930				
I	99	94	105	90
II	98	92	105	87
III	97	90	105	85
IV	97	87	105	85
V	95	86	105	85
VI	95	95	104	83
VII	95	94	103	79
VIII	96	88	103	77
IX	97	82	103	75
X	95	80	102	72
XI	93	78	101	71
XII	93	76	97	68
Average	96	87	103	80
1931				
I	90	74	95	66
II	91	74	95	66
III	91	77	95	66
IV	90	78	94	65
V	90	78	94	63
VI	91	79	94	61
VII	90	86	94	62
VIII	91	73	94	59
IX	89	69	94	57
X	93	69	94	56
XI	94	76	93	56
XII	94	76	90	54
Average	91	76	94	61
1932				
I	94	75	84	51
II	92	75	84	51
III	93	73	84	50
IV . . . . .	...	...	84	48

Appendix VII. Table 5.

PRICE INDICES OF RAW MATERIALS, SEMI-MANUFACTURED GOODS AND FINISHED PRODUCTS.

Country :	Canada		Germany		Italy			Sweden			U.S.A.		
	Raw and Partly Manufactur. Goods	Fully and Chiefly Manufactur. Goods	Ind. Raw Mat. and Semi-Manufactur. Goods	Fin-ished Products	Ind. Raw Materials	Semi-manu-factur-ed Goods	Fin-ished Products	Raw Mate-rials	Semi-Manu-factur. Goods	Fin-ished Products	Raw Mate-rials	Semi-Manu-factur. Goods	Fin-ished Products
Source :	Dominion Bureau of Statistics		Statistisches Reichsamt		Chambre de Commerce, Milan			Kommerskollegium			Bureau of Labor Statistics		
Base :	1926		1913		1913			1913			1926		
1929													
I	94	93	134	159	485	460	529	139	142	147	99	97	97
II	96	93	134	158	482	460	532	143	143	146	98	97	96
III	97	93	134	158	488	456	538	141	143	146	99	99	97
IV	95	92	133	158	479	453	536	136	142	143	97	97	97
V	93	91	131	158	463	449	530	134	140	143	95	95	96
VI	93	91	132	158	463	445	522	134	139	142	97	94	97
VII	102	93	131	157	462	445	515	136	143	141	99	96	98
VIII	102	95	132	158	462	446	505	136	144	141	99	96	97
IX	102	94	132	157	457	450	502	132	142	143	99	98	97
X	101	94	131	157	449	450	497	131	139	140	97	98	96
XI	97	94	130	157	442	445	486	131	137	137	95	96	94
XII	99	93	129	156	438	441	475	130	138	135	95	94	94
Average.	98	93	132	157	464	450	514	135	141	142	98	97	96
1930													
I	98	93	128	156	435	438	466	125	136	132	94	93	93
II	94	92	127	155	424	434	461	122	134	129	92	92	93
III	90	91	126	153	410	430	453	118	130	127	89	91	92
IV	90	90	125	152	404	422	450	118	130	125	90	88	92
V	89	89	124	152	398	412	438	117	128	124	88	84	91
VI	85	87	122	151	390	402	429	116	128	123	85	82	89
VII	80	86	119	151	376	392	423	115	128	122	81	80	87
VIII	77	85	118	149	371	395	431	114	128	121	82	78	86
IX	74	85	116	148	365	390	437	114	126	119	82	77	87
X	73	84	114	147	349	382	442	114	123	117	80	76	86
XI	70	83	113	145	343	378	433	114	122	116	77	76	84
XII	67	82	110	143	336	372	415	114	122	116	74	74	82
Average.	82	87	120	150	384	404	440	117	128	123	84	82	88
1931													
I	67	79	108	142	332	365	408	111	120	114	73	73	81
II	66	79	106	140	329	361	407	111	118	114	71	72	79
III	64	78	106	139	329	357	406	110	117	113	69	72	78
IV	65	77	105	138	318	353	404	110	116	112	68	71	77
V	63	75	103	137	307	345	403	109	116	111	67	69	75
VI	62	74	103	137	298	338	396	107	115	109	65	69	74
VII	61	74	103	136	302	341	386	106	114	109	64	70	74
VIII	60	74	102	136	291	337	384	106	113	108	64	68	75
IX	59	73	100	135	287	334	388	101	112	108	63	66	74
X	60	72	99	133	281	333	389	102	111	109	62	65	74
XI	61	73	99	132	281	331	387	107	112	110	62	64	73
XII	60	73	97	130	274	328	379	108	114	111	60	62	71
Average.	62	75	103	136	302	344	395	107	115	111	66	68	75
1932													
I	59	72	92	125	274	327	372	107	111	110	58	63	72
II	59	71	91	122	272	323	366	107	109	111	57	62	71
III	58	72	90	121	270	320	373	108	109	110	56	61	72
IV	57	72	89	120	262	313	372	109	108	110	56	60	71
V	55	71	...	...	252	306	363	...	...	...	54	58	70

Appendix VII. Table 6.

PRICE INDICES RELATING TO AGRICULTURE.

Country :	Canada			Germany			Poland		U.S.A.	
	Canadian Farm Products			Agricultural Products	Chemical Fertilisers	Agricultural Dead Stock	Agricultural Products	Industrial Products	Farm Products	Non-Agricultural Commodities
	Field	Animal	Total							
Source :	Dominion Bureau of Statistics			Statistisches Reichsamt			Office central de Statistique		Bureau of Labor Statistics	
Base :	1926			1913			1927		1926	
1929										
I	85	113	96	132	87	141	90	104	106	95
II	91	111	99	134	87	141	92	104	105	94
III	89	113	98	134	88	141	92	105	107	95
IV	86	112	96	128	88	142	90	104	105	95
V	82	111	93	126	86	142	84	104	102	94
VI	84	109	93	125	87	141	84	104	103	95
VII	107	109	108	132	81	141	85	103	108	96
VIII	108	111	109	133	82	141	84	103	107	94
IX	105	113	108	133	82	141	82	103	107	95
X	100	117	106	132	82	141	81	103	104	94
XI	94	114	102	128	83	141	85	102	101	93
XII	96	119	105	126	84	141	80	101	102	92
Average . .	94	113	101	130	85	141	86	103	105	94
1930										
I	92	121	103	122	85	141	75	99	101	91
II	85	118	98	116	86	141	69	98	98	91
III	78	112	91	110	86	141	70	98	95	90
IV	82	112	93	112	86	140	71	97	96	89
V	81	110	92	111	83	140	68	96	93	88
VI	79	98	86	110	84	140	69	95	89	86
VII	72	93	80	115	78	140	71	94	83	84
VIII	67	90	76	117	79	139	68	93	85	84
IX	58	93	71	114	80	139	66	92	85	84
X	54	98	70	109	80	139	64	91	83	83
XI	49	96	66	112	80	137	66	89	79	81
XII	43	93	62	110	81	136	63	87	75	79
Average . .	70	103	82	113	82	139	69	94	88	86
1931										
I	43	92	61	107	82	135	57	84	73	78
II	45	88	61	106	83	133	58	84	70	77
III	44	85	59	107	83	132	60	83	71	76
IV	47	82	60	108	80	131	65	82	70	74
V	48	77	59	109	77	131	67	81	67	73
VI	47	73	57	107	78	130	64	81	65	71
VII	45	73	55	105	73	130	59	80	65	72
VIII	43	74	55	103	73	130	58	78	64	72
IX	41	73	53	101	74	130	56	76	61	72
X	44	72	55	99	74	130	56	75	59	71
XI	46	72	56	99	72	129	60	75	59	71
XII	42	71	53	95	70	128	57	74	56	69
Average . .	45	76	57	104	77	131	60	79	65	73
1932										
I	42	69	52	92	71	123	52	74	53	70
II	44	66	52	95	72	120	55	73	51	70
III	44	65	52	97	72	120	54	72	50	69
IV	45	62	51	95	72	120	59	70	49	69
V	45	59	50	...	...	...	...	...	47	68

Appendix VII. Table 7.

PRICE INDICES OF INVESTMENT AND CONSUMERS' GOODS.

Country :	Canada					Germany				U.S.A.				
	Consumers' Goods			Producers' Equipment	Building Materials	Consumers' Goods		Producers' Goods		Consumers' Goods, Processed			Producers' Goods destined for Capital Equipment	
	Food	Other	All			Raw	Finished	Raw	Finished	Foods	Non-Foods	Total		
Source :	Dominion Bureau of Statistics					Institut für Konjunkturforschung				National Bureau of Economic Research				
Base :	1926					1913				1913				
1929														
I	97	92	94	94	98	153	175	137	138	150	167	157	155	
II	98	92	94	94	99	152	174	137	138	150	166	158	155	
III	99	92	95	94	101	153	174	138	137	151	166	158	157	
IV	97	91	94	94	100	151	173	137	138	150	167	158	156	
V	97	91	93	95	99	147	172	137	138	148	166	157	155	
VI	97	91	93	94	99	147	172	138	138	148	166	156	154	
VII	100	91	95	95	99	145	171	139	139	153	166	159	154	
VIII	104	91	96	95	99	143	171	139	140	155	165	160	154	
IX	104	91	96	95	100	141	170	139	140	153	165	158	154	
X	104	90	96	94	99	137	170	138	140	149	165	156	153	
XI	100	90	94	95	98	134	169	138	140	145	165	154	151	
XII	103	90	95	96	98	132	169	137	140	144	164	153	150	
Average.	100	91	95	95	99	145	172	138	139	150	166	157	154	
1930														
I	104	90	95	96	97	129	168	137	140	144	162	152	150	
II	103	89	95	96	97	122	166	136	139	142	160	151	149	
III	100	89	94	96	96	120	163	135	139	142	159	149	148	
IV	100	88	93	96	95	123	162	135	139	141	158	149	147	
V	98	87	91	92	93	122	161	134	139	137	158	147	144	
VI	94	86	90	91	92	119	161	132	138	135	157	145	141	
VII	91	86	88	91	90	114	160	131	138	131	156	142	139	
VIII	87	86	86	91	88	110	158	130	138	133	154	142	138	
IX	87	86	86	91	87	105	157	129	138	133	153	142	137	
X	87	85	86	91	86	101	154	129	137	130	151	140	136	
XI	84	85	85	91	86	100	152	128	136	123	150	135	135	
XII	81	85	83	92	85	96	149	128	135	121	147	132	134	
Average.	93	87	89	93	91	113	159	132	138	134	155	144	141	
1931														
I	80	83	82	92	84	93	147	123	134	118	144	130	132	
II	78	82	81	91	84	95	145	122	133	116	142	128	130	
III	76	81	79	91	84	95	144	120	132	115	141	126	130	
IV	76	80	78	91	84	94	142	120	132	112	139	124	130	
V	72	80	77	90	83	90	142	119	131	107	138	120	128	
VI	70	80	76	89	83	88	141	119	131	104	137	119	126	
VII	70	80	76	89	83	89	141	118	131	105	137	119	125	
VIII	69	80	76	89	82	83	140	118	131	104	135	118	124	
IX	68	80	75	90	81	79	138	118	131	104	133	117	123	
X	67	80	75	89	81	77	136	117	130	103	132	115	122	
XI	66	80	74	89	80	78	134	117	129	100	133	114	122	
XII	65	80	74	93	80	76	132	110	128	96	130	111	120	
Average.	71	81	77	90	82	86	140	118	131	108	137	121	126	
1932														
I	64	80	73	91	80	74	127	105	123	...	...	...	...
II	63	80	73	91	79	74	124	104	120	...	...	...	...
III	64	79	73	91	79	73	122	103	120	...	...	...	...
IV	62	78	72	91	79	71	120	103	120	...	...	...	...