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The Course and Phases of the World Economic Depression

Report presented to the Assembly of the League of Nations

Revised Edition

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THE COURSE AND PHASES OF THE WORLD ECONOMIC DEPRESSION

PREFACE.

The report contained in the following pages has been prepared in the circumstances described below by Professor Ohlin, of Stockholm University. The work was undertaken as a result of a resolution adopted by the Eleventh Assembly calling for " a study of the course and phases of the present depression and the circumstances which led up to it ".

In its report dated September 29th, 1930, the Second Commission of the Eleventh Assembly drew special attention to this question in the following terms[1]:

> " When we consider the magnitude of the losses from which the world suffers during a period of economic stagnation similar to that through which the world is now passing, it is impossible not to be impressed by the almost absolute failure of society up to the present to devise any means by which such disasters may be averted. The Committee felt that this problem was one which imperatively demanded co-ordinated and concerted study, and recommends, therefore, in a separate resolution, that the facts and special characteristics of the present depression should be ascertained and carefully sifted with the aid of work already done by national research institutions. "

As a result of this report, the Assembly, on October 2nd, adopted the following resolution :

> " (16) The Assembly, impressed by the seriousness of the present situation, by the general recession of employment and trade, by the constant recurrence of such periods of economic depression and the failure up to the present to discover any concerted means for averting the losses incurred, resolves that the Economic and Financial Organisation of the League, which has already been studying the causes of fluctuations in the purchasing power of gold and their effect

[1] Document A.79.1930.II.

upon the economic life of the nations, should undertake the study of the course and phases of the present depression and the circumstances which led up to it, and for this purpose it should collect the information compiled by institutions already in existence in different countries, centralise such information and, where necessary, fill up any gaps that exist.

" For this purpose, the Economic Organisation, advised by, in particular, the Economic Consultative Committee, should put itself in touch with national organisations, whether consultative or planning councils or research institutions concerned with this matter. "

In execution of this resolution it was decided, after consultation with the Economic Committee and the Financial Committee, while utilising the services of the Economic Intelligence Service of the League to the fullest possible extent, to supplement the existing staff by a small additional personnel and to place the whole enquiry under the immediate supervision of Professor Ohlin. In the autumn of last year previous to this appointment, the present Director of the Financial Section made a short tour of certain European countries with a view to getting into personal contact with some of the economic councils and research institutions which are referred to in the resolution of the Assembly. At the beginning of March last and again in July, meetings of experts from these councils and institutions, among whom was a representative of the United States Committee on Recent Economic Changes[1], were held at Geneva under the chairmanship of M. Cahen-Salvador.

At the first meeting a skeleton schedule of the present report was submitted for consideration and criticism. A shorter skeleton schedule was also agreed by the meeting as a basis for memoranda which the majority of the organisations represented were good enough to undertake to draw up and which, like the Government memoranda mentioned below, have proved of the greatest value in the preparation of this report. At the second meeting, a draft of certain sections of this report was discussed and an exchange of views on a number of technical points took place.

A letter addressed to Governments informing them of the instructions which the Economic and Financial Organisation had received and asking them to submit any memoranda or documentation which they might consider useful for the purposes of this enquiry was circulated soon after the Assembly of 1930 ; the skeleton schedule used for economic councils and

[1] A list of these institutions and their representatives is annexed — page 10.

research institutes was also sent later to certain Governments. In response to these letters, memoranda were received from the Governments of Bulgaria, Netherlands Indies, Estonia, Latvia, Portugal, Roumania, Sweden and Yugoslavia. A report on the economic depression in Japan was prepared by the Tokio Office of the League.

In accordance with the instructions of the Assembly, the author of the present volume, Professor Ohlin, to whom the Financial Organisation of the League entrusted the general responsibility for the preparation of the material upon which it is based, has worked in collaboration with the International Labour Office and the International Institute of Agriculture, which have furnished him with information and data relating to the subjects with which they are concerned. Unfortunately, owing to the postponement of the meeting of the Economic Consultative Committee and the desirability of preparing the report in time to submit to the present Assembly, it has proved impossible to consult that Committee as the Eleventh Assembly had intended.

A. LOVEDAY.

September 1931.

Financial Section and
Economic Intelligence Service,
League of Nations, Geneva.

PREFACE TO REVISED EDITION.

In the present revised edition the description of the depression is carried up to the latter part of September 1931. A summary account of the financial events since the middle of August has been added to Chapter VIII, and in Chapter VI the factors which led up to those events are briefly analysed. A number of minor alterations have been made in certain chapters ; the only considerable change is in the figures relating to international capital movements, which have been revised and completed in accordance with information recently made available.

A. LOVEDAY.

October 1931.

Financial Section and
Economic Intelligence Service,
League of Nations, Geneva.

Annex to Preface.

LIST OF THE INSTITUTIONS REPRESENTED AT THE MEETINGS OF REPRESENTATIVES OF ECONOMIC ADVISORY COUNCILS AND ECONOMIC RESEARCH INSTITUTES HELD AT GENEVA ON MARCH 2ND - 4TH AND JULY 2ND - 4TH, 1931, AND OF THEIR REPRESENTATIVES.

Those marked with an asterisk submitted memoranda.

1.*Austria: Oesterreichisches Institut für Konjunkturforschung — Dr. Fr. A. Hayek, Director, Dr. O. Morgenstern.

2.*Belgium : (1) Conseil économique de Belgique, (2) Institut des Sciences économiques, Louvain — both represented by Professor Léon Dupriez.

3.*Czechoslovakia: Poradni sbor pro otazky hospodarské (Economic Advisory Council) — Dr. A. Basch, Director of the Division of Research, National Bank of Czechoslovakia.

4.*Denmark : Institutet for Historie og Samfundskonomi (Institute for History and Economic Science) — Dr. Jørgen Pedersen.

5.*Finland : Economic Advisory Council — Dr. Bruno Suviranta, Director of the Division of Research, Bank of Finland, Secretary-General to the Council.

6.*France : (1) Conseil national économique — M. Cahen-Salvador, conseiller d'Etat, secrétaire général du Conseil. (2) Institut de Statistique de l'Université de Paris — M. L. March, directeur.

7.*Germany: (1) Reichswirtschaftsrat, (2) Institut für Konjunkturforschung — both represented by Prof. Dr. Ernst Wagemann, Direktor Dr. Bramstedt, Dr. W. Bauer.

8.*Hungary : Hungarian Institute for Economic Research — Dr. Stephen Varga, Director.

9.*Italy : (1) Consiglio nazionale delle corporazioni —
Professor Gino Arias, Member of the Council,
M. Ernesto Santoro, Ministero delle Corporazioni.
(2) Instituto Statistica della R. Universita degli Studi di Roma —
Professor C. Gini, Director.

10.*Netherlands : (1) Commission on Economic Policy —
Professor Dr. G. M. Verrijn Stuart.
(2) Nederlandsch Economisch Institut —
Dr. W. L. Valk.

11.*Poland : Institute for Economic Research —
Professor E. Lipinski, Director.

12. Portugal : Conselho do Commercio Externo —
Professor Moses Bensabat Amzalak, Instituto Superior de Sciencias Economicas e Financeiras, Lisbon.

13.*Spain : Consejo de la economia nacional —
M. Ruiz Almansa, Statistical Department, Ministry of Labour.
Dr. Bermudez Cañete, Ministry of Economics.

14.*United Kingdom : (1) Economic Advisory Council —
Mr. H. D. Henderson, Joint Secretary.
(2) London and Cambridge Economic Service —
Mr. G. H. Eastham, Secretary,
Mr. G. L. Schwartz.

15. United States of America : Committee on Recent Economic Changes —
Mr. E. E. Hunt,
Mr. R. K. Haas.

16. Empire Marketing Board —
Mr. F. D. McDougall.

17. International Chamber of Commerce —
Mr. Owen Jones,

18. International Labour Office :
Professor E. Milhaud, Chief of Section.
M. H. Fuss, Chief of Section.
Mr. J. M. Nixon, Chief of Section.
M. R. Guye, Member of Section.

19. International Institute of Agriculture :
M. Valentino Dore, Chief of the General Statistical Department.

Chapter I.

REVIEW OF POST-WAR ECONOMIC DEVELOPMENT BEFORE THE PRESENT DEPRESSION.

A. Production and Trade.

The war and subsequent changes and disturbances profoundly affected the economic structure and activity of the world. In Europe, wealth was destroyed on an unprecedented scale ; plant in excess of normal requirements was constructed in a number of industries to meet the special needs of warfare ; monetary systems were disorganised and public debts enormously increased ; the accumulation of capital was checked by inflation ; Russia completely changed her economic and social system ; and new territorial divisions were created. In other continents, the area under cultivation of the principal food crops was rapidly increased ; new industries were built up by countries which were formerly markets for European products ; and the United States of America, from being a debtor, became a great creditor nation. As between all countries, free intercourse was long subject to legal restrictions.

From the end of the war until 1929, there was a continuous, though laborious, process of reconstruction and consolidation under these new conditions. The world's productive and commercial activities increased rapidly ; but this progress was by no means easy or uniform and complete readjustment of production and trade to changing demand was not attained.

Though the details concerning the development of production and trade in this period may be scanty, the important tendencies emerge clearly enough. It is possible to measure roughly the quantitative changes in the production of basic foodstuffs and raw materials in practically all countries of the world, except

China. It is possible to estimate the growth of the total output of mining and manufacturing industries from the national indices of production for a number of leading and representative countries. Moreover, the development in the quantum of world trade may be roughly measured by adjusting the data [1] relating to the value of trade to the general movement of prices.

It will be convenient to consider briefly, first, the major changes which took place in the production and trade of the different continental groups between 1913 and the earlier post-war years up to 1925, and, secondly, the similar changes between 1925 and 1929. According to the available indices, the total world output of raw materials and foodstuffs in 1925 had increased more rapidly since 1913 than world population. Output increased by 16 per cent, population by 6 per cent. Thus the aggregate destruction of wealth caused by the war had been made good ; and the world as a whole was already in these years richer than before the war.

But, while the aggregate production of wealth had rather rapidly reached and passed the pre-war level, several important consequences of the war remained and were consolidated. The production of foodstuffs increased at a considerably lower rate than that of industrial raw materials ; and it is, of course, natural that, as wealth increases, a gradually diminishing proportion of income should be spent on food. Taking the world production of foodstuffs in the period 1909-1913 as 100, in the years 1923-1925 it averaged about 106, while the world index of raw material production, on the base of 1913, stood, for these three years, at 113, 119 and 130, and it is probable that the output of the manufacturing industries increased even more.

Another striking result of the development which took place in this period was the difference between the situation of Europe and other continents. Europe suffered in the years immediately following the war both from the destruction of her industrial equipment and labour force and from unstable conditions. Her production did not reach the pre-war level until 1925. Oceania and Asia had increased their production between 1913 and 1925 by about a fifth, North America by a quarter and South America and Africa still more. Every continent, except Europe, produced more per head of population. The centre of gravity of the world's economic life seemed to shift westwards. This is illustrated in the following table :

---

[1] Shown in detail in the *Memorandum on Production and Trade* (League of Nations) ; five editions published in 1927-1931.

Table I. — Indices of Production and Trade, 1925.
(1913 = 100)

	Population	Production [1] A	Production [1] B	Quantum of Trade
Europe	101	102	103	91
North America	119	126	127	139
Rest of World	106	124	130	126
World	106	116	118	107

The volume of world trade had increased less than production; in other words, a smaller percentage of goods produced entered into international trade than before the war. Moreover, while Europe's production of these crude products exceeded the 1913 level in 1925, her total trade was 9 per cent, and her exports were 14 per cent, below the pre-war level.

The year 1925 marks in some respects a turning-point in post-war economic developments. Europe's production probably reached the pre-war level in this year; and the quantum of world trade was for the first time greater than in 1913. In general, economic conditions, in their effect on production, trade and finance, had become far more stable. The adjustment which had taken place laid the foundation for a striking economic progress in the quinquennium 1925-1929, which is illustrated by the chart on the following page (Chart 1). While the population of the world increased at an average annual rate of about 1 per cent, its aggregate production of crude products increased by 2.6 per cent and its total trade by 4.4 per cent per year.

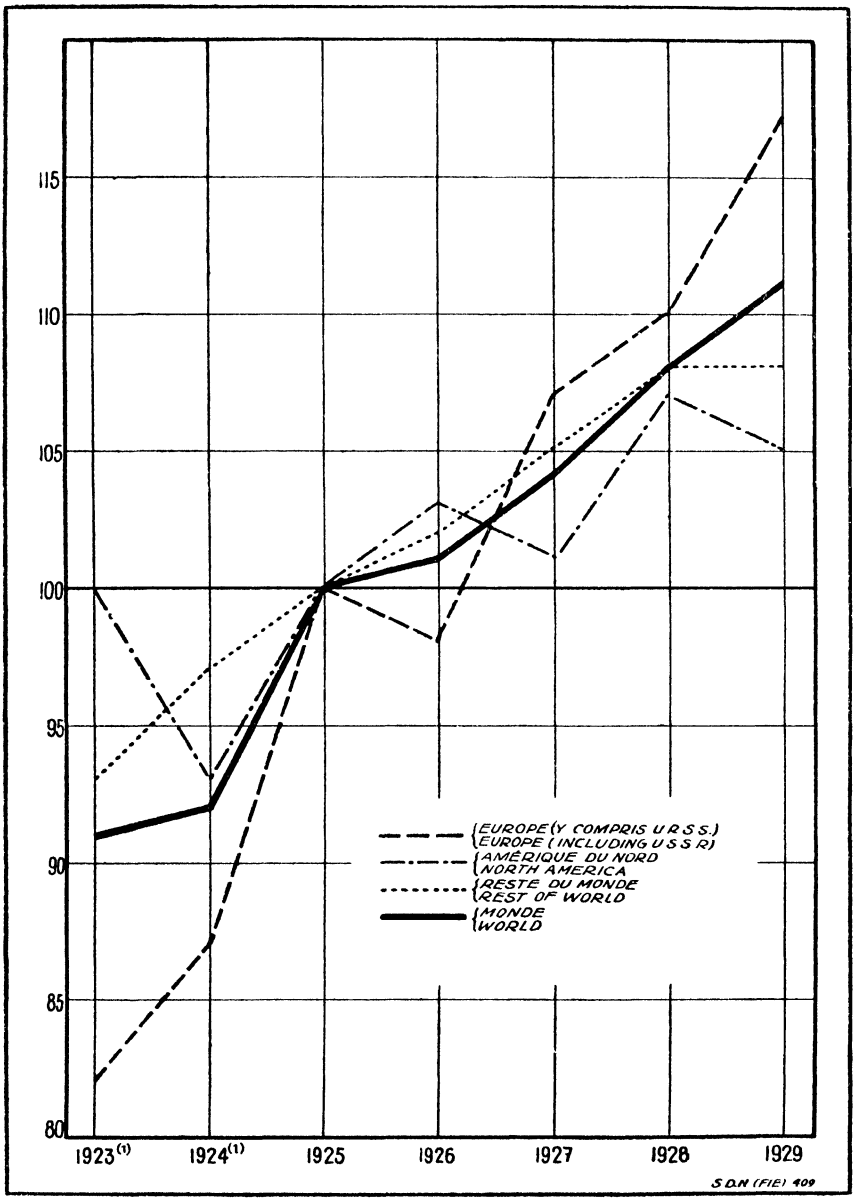
The main impetus to economic activity after 1925 came from an extraordinary advance in industrial technique and management — " rationalisation " in agriculture as well as in the manufacturing industries. Equally important, perhaps, was the improvement in the means of communication and transit due to the increased use of motor-vehicles and electricity. Finally, almost all countries gradually stabilised their currencies; and international lending on a commercial basis reached large dimensions.

This progress was of course far from being either general or uniform. It was much more vigorous in Europe than in other continents. Between 1925 and 1929 the aggregate production of crude products in Europe advanced by nearly 4½ per cent per annum, while the average annual increase in all other

[1] Foodstuffs and raw materials :
A. Weighted according to 1928 values.
B. Weighted according to 1913 values.

Chart 1.

GENERAL INDICES OF PRODUCTION OF FOODSTUFFS AND RAW MATERIALS, BY PRINCIPAL CONTINENTAL GROUPS.
(Base 1925 = 100.)



[1] The figures for 1923 and 1924 are not strictly comparable with the later years.

continents taken together was less than 2¼ per cent. Even these figures understate the case ; for, in the basic year 1925, the European harvests happened to be exceptionally good. Thus, by 1929 Europe had recovered the ground lost in preceding years and the pre-war equilibrium between Europe and the rest of the world had been very largely restored.

The rising figures for other continental groups represent normal advance rather than recovery. The peak of productive activity was reached in 1928 in North and Latin America and also in Oceania, their levels being respectively 7, 11 and 15 per cent above 1925. In America, the drop in 1929 was entirely due to unfavourable harvests ; the production of raw materials continued to advance even in that year. The net increase in North America, where a comparatively high level of production was reached by 1925, was less in the quinquennium ending 1929 than in other continents.

The tendency, noted above, for the production of foodstuffs to lag behind the output of industrial raw materials persisted. The average annual advance in the production of foodstuffs over the period under review was only 1.2 per cent, whereas the production of raw materials advanced continuously at the rate of 4.7 per cent per annum. Thus it is the output of industrial raw materials which accounts for the great progress made in these years.

Such statistical information as is available suggests that the manufacturing industries progressed more rapidly than the production of raw materials during the period 1925-1929. The available indices of production are given below[1]. They are

Table II. — National Indices of Industrial Production.
(Base : 1925 = 100).

Countries	1926	1927	1928	1929
France	116	102	119	130
Germany	95	120	120	122
Poland	98	123	138	138
Sweden	103	108	104	127
United Kingdom	77	111	105	113
U. S. S. R.	139	164	198	223
Canada	117	125	138	154
United States	104	102	107	114

[1] For sources and details, see the *Statistical Year-Book of the League of Nations*, 1930-31 and the *Memorandum on Production and Trade*, 1925-1929/30.

compiled by varying methods and are not strictly comparable as between the different countries.

The progress recorded in the years under review was chiefly confined to industries manufacturing capital goods and consumption goods of a new kind and of a higher grade.

The remarkable growth in the output of iron by some 28 per cent and of steel by about 33 per cent reflects vigorous activity in all the mechanical industries. The engineering trades, both mechanical and electrical, increased their output by over a half. The manufacture of motor-cars rose by 29 per cent and the number of ships launched increased nearly as much, although the shipyards of certain countries were not fully occupied. The rapid technological change is illustrated by the fact that motor-ships accounted for 44 per cent of the total tonnage launched in 1929 as compared with 14 per cent in 1923.

The great increase in the motor-car industry gave a powerful stimulus to the rubber manufacturing trade, which increased its output by 40 per cent. The output of heavy chemicals advanced by at least a third. The advance in the timber as well as the paper and printing, industries, although smaller, was still considerable — about a quarter.

Far-reaching changes took place in the technique of heating and generating power. These were detrimental to the coal trade. In no other major industry was so little progress made before 1928 ; the increase of 6 per cent in the output of coal and lignite in 1929 was quite exceptional and larger than in the five preceding years taken together. The production of crude petroleum increased between 1925 and 1929 by 39 per cent, but this uninterrupted advance was excessive and the stocks in the United States reached unprecedented figures. The growth in the production of electrical energy was still greater : the advance may be estimated at some 50 per cent in four years.

The textile industry, as a whole, as well as the leather and boot-and-shoe industry presents a striking contrast to the heavy industries. A plentiful supply of raw materials at falling prices was counterbalanced by a contraction in the demand for finished products. The net advance in the output of textile raw materials from 1925 to 1929 was only 8 per cent ; and even this rate of increase proved too rapid. Its chief branch — cotton spinning and weaving — made little progress. The leading European exporters of cotton goods were adversely affected by the expansion of competing industries in overseas countries — particularly in Japan — and, later, by the reduced purchasing power of South America and the Far East. The woollen and worsted trades could not continue to absorb the growing supplies of raw wool coming on to the market and the development of the industry

was arrested. The flax and hemp trades were unable to maintain the level of 1925.

The silk industry, on the other hand, showed considerable activity and the artificial silk industry continued to gain ground from the older textile trades. Indeed, the output of artificial silk increased between 1925 and 1929 by some 133 per cent. Its relative importance in the whole group of textile industries is still, however, small.

International trade increased more rapidly in 1925-1929 than in 1923-1925 ; and, as contrasted with preceding years, the increase in world trade (19 %) outran the increase in production (11 %). Europe, with an increase of no less than 22 per cent, regained her pre-war position. As prosperity increased, the demand for foreign products and particularly for industrial goods rose. Above all, the trade in manufactured articles underwent a remarkable expansion. The re-organisation of industry in Europe and industrial development in other parts of the world caused considerable capital movements, especially in 1927 and 1928, and these, in turn, provided a great stimulus to international trade. In spite of restrictions on the supply in a number of countries which normally export capital, and a heavy fall in prices, there was a further increase in international trade in 1929.

B. Changes in Demand.

During the period under consideration, profound changes in the structure of demand were taking place and were calling to an exceptional degree for a corresponding adaptation in the productive system. Slow changes in tastes and habits are no new phenomena, and in the past — more especially in periods of prosperity — new demands have arisen and the relative strength of old demands has shifted. But the intensity of certain of the recent changes has been peculiar. This is partly due to the influence of certain new commodities like the motor-car on conditions of life, but mainly it is the result of the unprecedented increase of productive activity in many parts of the world, bringing in its train an unprecedented increase in income. In certain countries, State education and social insurance — against unemployment, sickness, and old age — have had the effect of diverting a part of national income from investment to consumption. Again, the proportion of persons gainfully employed has been rising. In many parts of the world the striking fall in the ratio of children to total population and the increased employment of women in industry have led to a larger growth

in family incomes than is shown by statistics of wages and incomes per head. And, if the first of these factors has affected more especially the well-to-do classes of society, the influence of the second has been largely confined to the wage-earners, whose changing standards of living have been largely responsible for the changes in relative total demands.

The change in the age-distribution has been most pronounced in Europe. In Germany, children under 15 years of age constituted 34 per cent of total population in 1910 and only 25.8 per cent in 1925. In England and Wales, the corresponding percentage was 30.7 in 1911 and 27.8 in 1921 and is estimated to have dropped to 25 by the middle of 1928. In many other European countries — and more especially in industrial countries — a similar tendency may be observed. Such distinct movement cannot be observed for other continents from the results of the 1910-11 and 1920-21 censuses ; but from the annual figures for births and deaths in the last decade it may be safely inferred that, in North America and Oceania at all events, a similar process has begun.

Thus, income available for expenditure on objects other than the primary necessities of life has been growing rapidly. Taste and leisure have been indulged and the offer of novel products, which enhance the comforts and amenities of life, has met with a ready response on the part of the consumer. The diet of the Western countries is becoming lighter and more varied, more expensive, more adapted to the needs of a society in which manual labour is diminishing in importance. There has been a relative decline in the world consumption of cereals and a heavy growth in that of fruit, dairy products and some of the " colonial goods ". Cotton and wool have been giving place to silk and artificial silk. Lighter and finer clothing is now required. Motor-cars, wireless sets, gramophones, electric appliances of all sorts, creating and satisfying new demands, have gradually permeated the world's markets.

But such generalisations as these naturally require many qualifications. In countries in which Western customs do not prevail or in which the conditions mentioned above have been wholly or largely absent, indications of change are either inconclusive or else point to a different movement. The conclusions set forth above do not apply to the years of reconstruction immediately following the war. In certain countries — Germany, Austria — in which a large proportion of the population was living under starvation conditions at the end of the war, economic recovery was at first accompanied by a heavy rise in the demand for the prime necessities of life. But later the development in these countries seems to have been in the same direction as elsewhere in Europe. The changes have

not been universal. Shifts in the relative demand for certain foodstuffs which profoundly modified the condition of various branches of agriculture did not obtain over a large part of the globe.

What is of importance, however, is not that demand failed to change uniformly in all countries, whatever conditions prevailed, but that broadly similar conditions in a large number of countries did lead to certain extraordinarily uniform changes in consumption and that these changes were calling for a constant re-adaptation of the world's productive system.

* * *

Total food consumption per head is highly inelastic. In the United States and the United Kingdom, the average consumption of food per head, by weight and by calory, was very little higher three or four years ago than in the years before the war. When physiological needs for food have been fully satisfied, not more food but a greater variety and finer qualities of food are required. But habits of diet alter slowly and the changes in relative demand for different foodstuffs noticeable since the war had, to a considerable extent, begun to operate long before. Secular movements, in many countries checked or arrested by the war, resumed their normal course or were accelerated. This is particularly true of wheat. In the United States, the *per capita* consumption of wheat flour has long been declining, as the following figures show [1] :

	1889	1899	1909	1919	1929
Wheat-flour consumption per head in the U.S.A. (in lbs).	223.9	222.2	209.7	195.4	175.2

It is estimated [2] that the consumption of wheat per head (excluding quantities necessary for sowing) in the world as a whole fell about 4 per cent from the last years before the war to the period 1925-1930. The increased consumption of bread in certain Asiatic and African countries, and the gradual substitution of wheat for rye bread in many parts of Central and Eastern Europe, have been more than offset by the very striking fall in Western Europe, Oceania and the American continent.

Some of the major changes in the position of other foodstuffs may also be briefly indicated. The world production of meat was by 1927 over 15 per cent and by 1928 over 20 per cent above the 1913 level. World population had risen by

[1] Figures published by the United States Department of Commerce.

[2] League of Nations : *Report of the Economic Committee on the Agricultural Crisis, 1931.*

about 10 per cent in the same period. The consumption of meat has of course not increased uniformly in all countries. In the United States, something approaching saturation point appears to have been reached ; indeed, there was a steady decline *per capita* between 1924 and 1928. On the other hand, in certain European countries, where meat consumption was heavily reduced during and immediately after the war, there has since been a rapid return to approximately the old demand. In Switzerland, for example, meat consumption per head fell from 42 kilos in 1913 to 25 in 1921. It rose uninterruptedly to 41 kilos per head in 1929. This factor — the return to old habits of consumption after the war — has been of considerable importance. The huge increase in German imports of coffee and cocoa after 1920 was obviously of a different order from the corresponding increase in demand in the United States. It gave no necessary indication of a long-time change in the trend of demand.

Figures are available which show the changes in the consumption of various classes of foodstuffs in the United Kingdom between the periods 1909-1913 and 1924-1928 :

Table III. — Total Consumption of Principal Foodstuffs in the United Kingdom. [1]

(Metric Tons, 000's omitted.)

	Yearly average 1909-1913	Yearly average 1924-1928
Cereals	4,746	4,389
Meat	2,685	2,649
Poultry, Eggs, Game and Rabbits	395	395
Fish	848	852
Dairy Produce	5,232	5,502
Fruit	1,271	1,864
Vegetables	5,482	5,575
Sugar, Cocoa and Chocolate	1,657	1,831

If differences in the age and sex distribution of the population in 1909-1913 and 1924-1928 be eliminated in order to allow

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[1] A. W. Flux : " Our Food Supply, before and after the War " *Journal of the Royal Statistical Society*, Vol. XCIII, Part IV, 1930. The figures for 1909-1913 were compiled in connection with an official enquiry made in 1916. The procedure followed in drawing up the figures for 1924-1928 was, as nearly as possible, similar to that adopted for the earlier estimate.

The 1909-1913 figures include the whole of Ireland ; those for 1924-1928 exclude the Irish Free State. The total population considered was, however, almost identical in the two periods — 45,270,000 in 1909-1913 and 45,240.000 in 1924-1928.

Cottage-garden produce and consumption on farms, which, in the case particularly of poultry, eggs, vegetables and fruits, are of considerable importance, are entirely ignored above.

the comparative consumption of a standard "man" in the two periods to be determined, the following conclusions are reached:

"Taken per 'man', there is a decrease in fish and in poultry, eggs, etc., of about 3 per cent, an increase of about 1 ½ per cent in the aggregate of dairy produce and in the aggregate of vegetables, of about 7 per cent in the aggregate of sugar and sugared goods, and of well over 40 per cent in fruit. The decrease in the average per 'man' is about 4 ½ per cent for meat[1] and about 10 ½ per cent for cereals."

The market for coffee has expanded comparatively slowly since the war. On the other hand, the world consumption of sugar rose dramatically by 70 per cent between 1920-21 and 1928-29. There was a rise in *per capita* consumption in almost all countries — 17 per cent in Denmark between 1923 and 1928, nearly 20 per cent in the United States between 1919 and 1927. The consumption of cocoa has also been growing. Imports of crude cocoa into the United States rose from 64,300 metric tons in 1910-14 to 156,000 in 1922 and 230,000 in 1929. The habit of eating and drinking chocolate has, of course, been enormously extended.

In many parts of the world — especially in America and Western Europe — there has been a pronounced shift in demand away from those foodstuffs which require much preparation at home. Canned products, ready-cooked meats and vegetables are being eaten far more even than ten years ago.

The growth in the demand for *industrial products* has been particularly striking. Rising incomes mean that a declining percentage is spent on food and an increasing proportion on other commodities. Moreover, habits of consumption have been revolutionised by the introduction of certain recent inventions — motor-cars, the aeroplane, wireless, gramophones, cinemas, etc. This revolution, which has affected to a greater or less extent all classes of society in all parts of the world, is one of the outstanding phenomena in the social history of the decade preceding the present depression. Only some very brief indications of the growth in the demand for these new industrial products can be given here.

Motor-cars, excluding lorries, registered in the United States rose between 1919 and 1928 from about 7 to 21.4 millions and in the United Kingdom from 260,000 to 998,000. The total number of cars in the continent of Africa rose from 189,000 at the end of 1926 to 347,000 at the end of 1929. In Asia, the corresponding

[1] It is stated that the whole of the drop in total meat consumption shown in the table is due to change in official statistical methods. If the figures for 1909-1913 be revised, a drop in meat consumption per "man" still appears, however, although only half as great as indicated above.

relative increase was almost identical. In the United States, there were 60,000 wireless sets in use at the beginning of 1922 and 7,500,000 six years later ; a similar increase has occurred in other countries as seen from the following table :

Table V. — Number of Radio Sets.[1]
(000's omitted)

	1924	1927	May 1931
Germany	500	2,000	3,822
Great Britain . . .	1,100	2,500	3,734
Italy	—	41	192
Russia	—	200	554
Australia	65	260	329
Japan	5	258	730

The construction of residential buildings, meeting the demand for bathrooms and modern household appliances, has been proceeding apace. The value of electrical household appliances produced in the United States in 1914 was less than $3,500,000. By 1927 it had risen to $77,500,000.

Amusements, intellectual and other, and sport absorb more and more of the time and money of the community and a number of industries — manufacturing articles of sport, publishing, building, the cinema — have prospered greatly thereby. North-American and European films have penetrated to all parts of the world.

Almost all consumers' industries have felt the influence of increased demand in the period under consideration; but there have been certain important exceptions. The staple textiles have been seriously depressed ; cotton and wool have lost ground to silk and artificial silk. In the cotton and wool industries, those sections which produce medium- and cheap-quality goods have been the most seriously affected. The relative development of the production of these industries has been briefly touched upon in the last section.

While the consumption of cigarettes has increased enormously in all parts of the world, the demand for cigars and pipe tobacco has in general declined. The production of cigarettes increased by 50 per cent in the United States between 1919 and 1925, that of cigars and pipe tobacco fell 8 and 13 per cent respectively. Similar charges are recorded elsewhere.

The above observations on the changes in demand in the

[1] Source : *Union internationale de Radio-diffusion*, Geneva. Nearest census or estimate.

post-war period lead to the conclusion that not only were the changes very considerable, but a large part of the new demand was much less stable than the old. The satisfaction of more secondary needs had come to play a much larger rôle than before the war, and the character of these needs and the goods and services required to satisfy them were likely to shift more easily. Hence, the task of balancing consumption and productive capacity would appear to have been more difficult than before the war ; and it is probable that some maladjustments from this source existed in 1928 and 1929 (compare Chapter II).

C. Financial Conditions.

1. *Monetary Systems and Capital Markets.*

After the war, the currency systems of the world were seriously disorganised and unable to stand the severe strain resulting from the financial difficulties which prevailed during the first years of peace. Hence, price levels and exchange rates fluctuated violently everywhere. A very serious decline in wholesale prices in 1920-21, which appears to have started in Japan, spread to all those countries which were trying to maintain a more or less fixed exchange rate on the dollar. In other countries, a continuous policy of inflation was pursued and the value of their currencies in terms of dollars declined rapidly. Finland alone followed an intermediate policy of maintaining a relative stability in internal purchasing power while abandoning the stability of the currency in terms of foreign exchange. Its wholesale price level has remained almost unchanged since 1920.

Gradually, however, conditions became more settled. Exchange fluctuations became less violent, as is shown in the following table which shows in how many of the thirty-six countries considered the difference between the lowest and highest quotation of the dollar was not over 10 or 20 per cent of the lowest quotation :

Table VI. — Fluctuations of the Dollar Exchange.[1]

Year	Not over 10 per cent	Not over 20 per cent
1921	1 country	6 countries
1922	8 countries	15 »
1923	11 »	15 »
1924	12 »	22 »
1925	21 »	26 »

[1] Source : *Memorandum on Currency and Central Banks*, 1913-1924 and 1913-1925.

After 1922, the dollar exchange was kept relatively stable in several countries, and two years later the gold standard was introduced in Sweden and the gold exchange standard in some other countries. A large number of others followed the example of the United Kingdom in 1925 and returned to the gold standard, or carried out a *de facto* stabilisation of their currencies in relation to gold.

In Central Europe, inflation had proceeded much more rapidly than elsewhere. In some of these countries, the currencies had lost practically all their value. The whole of their economic life was dominated by this fact. Thus any re-organisation of their monetary systems was extremely difficult. With the assistance of the League of Nations such a re-organisation was, however, carried out successfully in Austria as early as 1922, and in Hungary in 1924. The stabilisation of the German currency in 1923-24 was accompanied by the drawing-up of a plan — the Dawes Plan — for a reparation settlement. An international loan of 800 million marks, floated successfully in the autumn of 1924 on the basis of the plan, was an outstanding event in post-war financial progress.

After 1925, currencies were kept fairly stable, even in countries where the currency had not been legally stabilised on gold. But in Belgium, France and Poland inflation continued, and the currency depreciated. Here also the next two years saw a re-organisation of the monetary systems, following upon drastic financial reforms which turned deficits in the public finances into surpluses and thus reduced the Governmental demand for advances from central banks. France and Belgium chose to return to the gold standard on a basis which did not make a deflation of their domestic prices necessary. Their industries thus escaped the hardships of deflation, whereas industries in Italy, Denmark and Norway had once more to face the difficulties which they had encountered during the period of deflation in 1920-21. The various ways in which the return to the gold standard was carried out exercised considerable influence in subsequent years upon the economic life of the countries concerned. As the most important South-American countries stabilised their currencies at about the same time as France, the great majority of the world's monetary systems had been restored to order by 1928. Even in countries like Spain, where a paper standard still prevailed, that year marked a comparatively quiet period, without important currency disturbances.

One noticeable factor in post-war monetary development, which will be dealt with later, was that gold was almost continuously flowing to the United States. Here again, however, the years 1927 and 1928 brought more normal conditions ; during

thirteen months of these years considerable amounts of the surplus gold in the United States moved to other countries.

In most countries the re-organisation of monetary systems went hand in hand with a consolidation of the capital markets. As State budgets came to be balanced, one important source of demand for credit disappeared and rates of interest tended downwards. This tendency was more pronounced for short-term rates than for long-term rates. Compared with pre-war times, the supply of short-term credit was apparently increasing more rapidly than the supply of funds available for long-term investments.

It is probable that the need for short-term banking credits for the financing of trade and production was smaller than before the war. Manufacturers keep smaller stocks of raw materials, and traders of finished goods. A more rapid turnover of operating capital has been achieved in manufacture by improved technique. Sales on credit by producers to traders, among traders themselves and by traders to retailers were less popular. Instalment selling, which grew in favour, was largely financed not through direct bank credits but by special financial companies through the sale of finance paper. Mergers, combines and chain stores eliminated small firms, replacing them by large corporations. These preferred the more permanent method of raising money on bonds and stocks in order to finance their business.

On the other hand, the demand for long-term credit was considerably higher. This was due to extensive borrowing by Governments and to a serious need for capital investment in order to repair the devastations of the war and to finance new inventions. Thus, for intance, the general spread of motor-cars called for new and more expensive roads and the so-called " rationalisation " movement demanded a larger permanent capital for the equipment of plants.

This intensive demand encountered less readiness on the part of lenders to supply capital for long-term investment. Lack of confidence in the stability of currencies, reluctance to accept a lower interest rate than that to which they had grown accustomed, unfortunate experiences of loans lost abroad, and other factors contributed to this attitude. As a result, long-term capital was scarce and rates were higher than they had been for many years before 1913.

These conditions naturally influenced the credit policy of private banks. In many countries long-term credits grew in relative importance and time deposits tended to increase more than sight deposits.

The high interest rates for long-term loans did not seriously handicap those enterprises which were able to procure funds by

issuing shares, the prices of which showed a strong tendency to rise, as will be seen in the following table :

Table VII. — Index Numbers of Industrial Shares. [1]

Yearly average	Germany 1924-1926 = 100	Switzerland Nominal = 100	United Kingdom 1924 = 100	United States 1926 = 100
1924....	101	124	100	70
1925....	93	138	109	88
1926....	106	167	115	100
1927....	154	201	124	118
1928....	142	247	142	154
1929....	126	236	139	189

The growth of speculation had some disquieting aspects. But, on the whole, the period up to 1928 restored monetary systems and capital markets to a more normal condition.

In view of their unfortunate effect upon the present depression, it is necessary to describe the changes in international capital movements after the war rather more fully than the subjects hitherto treated. A short analysis of the pre-war situation will afford a background.

During the half-century before the war, international movements of capital expanded very rapidly. A continuous flow of long-term capital from Western Europe to the rest of the world took place, though not of course without heavy fluctuations from year to year. It has been estimated that by 1914 the total capital investments of Great Britain amounted to $18,000 million ; the net foreign assets of France amounted to almost half that figure ($8,700 million), while the corresponding German figure was $5,600 million. It is not too much to say that the building-up of modern industry and transport in most of the important areas outside Europe was made with the help of European capital and could not have been done with anything like the same speed without it. This holds true also of the development of the United States, which in 1914 had borrowed something like $5,000 million abroad. Considerable exports of American capital to other countries had brought the total foreign assets of this country up to more than $2,000 million ; thus the net debit of the United States amounted to something like $3,000 million.

[1] Source : *Statistical Year-Book of the League of Nations*, 1930-31.

The manufacturing industries of the lending nations had adapted themselves to these conditions of a continuous outflow of capital, and had built up a capacity for producing manufactured goods which could only be sold in sufficient quantities as long as the export of capital continued. In exchange for some of these manufactured commodities, foodstuffs and raw materials were imported, the production of which had become possible largely owing to new transport facilities having been created with the help of European capital.

Short-term capital movements were different in character. There was no regular flow from Western Europe to the rest of the world. On the contrary, these movements went backwards and forwards as conditions changed ; they acted as a kind of " compensation balance " in international economic relations. Short-term capital was also used to finance international trade from London, the monetary centre of the world. Although the total capital employed in this way was considerable, it was small compared with the amounts involved in the long-term movements.

The war changed all this. Europe sold most of its American securities back to the United States and contracted new loans on a large scale. Russian bonds became valueless. These and other factors reduced the foreign assets of European lending nations and turned the United States from a borrowing into a capital-exporting country. In 1920, its net foreign assets, excluding the Inter-Allied debts, reached the level of about $6,000 million. British foreign assets had been reduced by a fourth, the French had fallen by more than half : in 1920 France was still a capital-importing country. The larger part of the German foreign investments had been sold or lost during the war and through the Peace Treaties.

Great Britain quickly resumed her position as an international lender on a large scale, and the United States continued to invest large sums abroad, chiefly, however, outside Europe. As monetary and political instability was unfavourable to the issue of long-term loans, the most urgent needs of the majority of European countries were met largely by short-term credits. Certain countries exporting primary products in Latin America, Asia and Oceania were more successful in borrowing on long term. The new capital issues floated in the United States for the account of Latin America rose from $34 million in 1919 to $230 million in 1921 and $224 million in 1922. In the following years, however, prices of foodstuffs and raw materials gradually rose in comparison with prices of manufactured goods, and countries exporting these products were able to reduce their demand for credit to some extent. Thus

more capital became available for other borrowing countries. Moreover, France had begun to export capital in 1921. Nevertheless, several of the countries suffering most from the scarcity of capital were still excluded from the international markets for funded capital owing to their unstable political and monetary situation. They were forced to continue borrowing on short term. On the whole, however, the years after 1920 saw a considerable expansion of capital movements which were, in general, different from those which took place before the war.

When the German reparation problem had been settled with the Dawes plan in 1924, a new period of further expansion opened. The Dawes loan was the first of a series of large bond issues whereby Germany absorbed more foreign capital than any other country during the next four years, and, excluding liabilities on reparations account, Germany changed from a creditor country in 1924 to the most heavily indebted country in the world after Canada in 1929.

Several countries other than Germany, which had previously been to a large extent excluded from the international capital market, went through a similar experience after the stabilisation of their currencies. Up to and including 1924, the bulk of new loans floated in the United States for European account was raised by capital-exporting countries which were re-lending, chiefly on short term, to countries which were unable to raise long-term loans. As the following table shows, the aggregate of issues floated in the United States of America for European capital-exporting countries (the United Kingdom, France, Belgium, the Netherlands, Sweden and Switzerland) declined markedly after 1924, while at the same time the total amount of European issues floated in that country rose sharply.

Table VIII. — Distribution of European Issues in the United States of America.

$ (000,000's)

Issues for the account of	1921-1924	1925-1928
A. Europe	1003	2289
B. Capital-exporting European countries	621	258
C. B as percentage of A.	62	11

Even during the latter part of the period under review, however, certain countries in Europe, among them Poland,

Roumania, Yugoslavia and Bulgaria, could only borrow to a very limited extent on foreign bond markets.

Another interesting change in the capital movements of these years deserves mention. During the period 1920-1925, the vast majority of the new capital issues for European account went to Governments and municipalities, whereas from 1925 onwards issues for industrial enterprises became increasingly important. Foreign capital was thus being employed to a greater extent than in previous years directly for the development of industrial production.

Table IX. — Net Export of Capital 1923-1929.

$ (000,000's).

	U. S. A.	U. K. [1] [2]	France [1] [3]	Canada [1]
1923.....	—126 [4]	700	.	44
1924.....	489	380	.	107
1925.....	622	261	.	277
1926.....	140	—29 [4]	.	173
1927.....	470	482	504	51
1928.....	1,036	667	235	164
1929.....	233	672	—29 [4]	—87 [4]
Total . .	2,864	3,133	.	729

Information about the magnitude of capital movements is unfortunately scanty and somewhat inaccurate. The preceding and following table give estimates for *net* exports and imports of long- and short-term transactions for countries showing the largest movements. The United States and the United Kingdom invested abroad approximately the same sum during this period — about $3,000 million. Germany and Australia were the leading borrowers.

[1] Indirect estimates, calculated on the basis of figures relating to merchandise, gold and services.
[2] The figures exclude Government capital transactions.
[3] The figures exclude amortisation of Inter-Allied debts.
[4] Net import of capital.

Table X. — Net Imports of Capital 1923-1929.
$ (000,000's)

	Japan	Australia [1] [2]	Argentine [3]	Germany [1]
1923	.	187	32	.
1924	226 [1]	220	170	421
1925	74 [1]	110		866
1926	128 [1]	170	31	169
1927	22	257	134	1,090
1928	54	193	131	1,017
1929	—25 [4]	166	38	567
	.	1.303	536	4.130

One important aspect of capital movements in these years is that not only short-term, but also long-term, capital moved in cross-currents. The same country would both import and export large sums. Available figures, however, exaggerate the amounts invested by other countries in the lending countries. The movements of securities backwards and forwards are responsible for the high capital import figures in these countries [5].

Some impression of the geographical distribution of the British and American "foreign issues" can be obtained from Tables I-III in the Appendix. According to the figures there shown, the European share of the United States and British issues for foreign account fell from 46 per cent in 1925 to 39 per cent in 1928.

These international capital movements helped to reduce the discrepancies between interest rates in different countries. The price of long-term capital in most countries fell, but the decrease was as a rule less pronounced for lending than for borrowing countries, in which rates were on higher level. Simultaneously the spread between short-term money rates in different countries was reduced. During 1926, 1927 and the early part of 1928, they fell in most borrowing countries. In lending countries, other than France and Belgium, where rates were dominated by currency conditions, rates increased slightly.

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[1] Indirect estimates calculated on the basis of figures concerning merchandise, gold and services.
[2] Economic years July 1st-June 30th.
[3] Economic years October 1st-September 30th. The first year is October 1922-September 1923.
[4] Net export of capital.
[5] See page 16, *Memorandum on International Trade and Balances of Payments*, 1927-1929, Vol. II.

This movement in the direction of an international equalisation of money rates came to an end in most countries towards the middle of 1928 — that is, at the beginning of the boom in the United States which culminated one year later. (See table in Chapter VC.) In the case of Germany and Austria, the fall in money rates had been arrested earlier and an upward movement had begun. It was followed later in the year by a somewhat smaller increase in other European rates, and indeed those of all Central and Eastern European countries, *e.g.*, in the United Kingdom, the Netherlands and France. A reaction took place in most countries early in 1928, but German and Austrian rates remained — and have since remained — far above those of the lending countries. The German minimum open-market rate, which during the first quarter of 1927 coincided with the British, was about 1¾ per cent higher during the last quarter ; one year later the discrepancy had risen to 2 per cent.

The price of long-term capital in Germany was affected in the same way as money rates. Quotations of bonds of nearly all other countries, borrowing as well as lending, rose in 1927 and reached a peak in 1928 (that is, actual bond yields were at a minimum) ; but in Germany the maximum bond prices and the minimum yields were reached about one year earlier.

Table XI. - Actual Percentage Yields of Certain Bonds.

	Germany	U. S. A.	U. K.	Roumania
	Mortgage Bank	60 prime bonds	Consols 2 ½ %	Govern. bonds
Dec. 1926	7.3	4.6	4.6	12.4
Feb. 1927	7.1	4.5	4.6	11.4
May 1927	7.2	4.5	4.6	9.1
Dec. 1927	7.6	4.4	4.5	9.8
June 1928	7.8	4.5	4.5	7.5
Dec. 1928	7.9	4.6	4.5	8.5
June 1929	8.1	4.7	4.6	9.3

The causes of the increasing scarcity of capital in Germany at this early date are not very clear. Certain factors which tended to reduce the inflow of foreign capital appear to have been decisive. In the first half of 1927, the German loans floated abroad were greatly reduced partly owing to the fact that the exemption of such loans from the 10 % tax on the yield of capital was withdrawn from December 1926 to June 1927. Moreover, certain financial

circles were coming to the conclusion that some German borrowings abroad were being used unproductively and that public expenditure was not sufficiently restricted.

Another factor which undoubtedly had a direct effect upon the supply of capital in Germany and, particularly towards the end of the period under review, in other countries was a change in the character of French capital exports and their subsequent decline. For many years previous to 1927 France exported a very considerable amount of capital. No direct estimates are available, but the surplus on account of French trade in goods and services, together with reparation receipts during 1924-1926, has been estimated to have averaged $500-600 million annually. So far as is known, only a comparatively small proportion was utilised for purchases of foreign long-term securities or directly invested in permanent businesses abroad. The bulk was lent on short term. France was, indeed, borrowing considerable amounts abroad on long term, but lending on short term.

The surplus of capital in France appears to have been almost as large in 1927 as in the preceding few years; but the stimulus to short-term investment abroad was largely removed when the franc was *de facto* stabilised at the end of 1926 and exports from France changed in composition. The French Government debt to the Bank of England was settled, involving a payment of $160 million or not far from a third of the whole French capital export in 1927. Capital issues in France for foreign account rose, and at the same time loans floated abroad for the account of France fell off. Although the latter tendency continued in 1928, the French net export of capital that year was reduced by roughly one half. A part of the French floating assets abroad were used for gold purchases in connection with the legal stabilisation of the franc. These gold purchases continued in the following year and the foreign exchange reserves of the Bank of France fell by some $260 million, largely on account of withdrawals in the first half of the year. On balance, there seems to have been a small net import of capital into France in that year.

Around 1928 the situation with regard to capital invested or borrowed abroad by certain important countries was the following. On long term the United States had a credit of $12,000 - 14,000 million and a debit of about $4,000 million. On short-term account the debits were double the credits — *i.e.*, about $3,000 million. Thus, the net assets reached $6,500-8,500 million, excluding war debts, the capital value of which has been calculated at $6,000 million on the basis of a rate of interest of 5 per cent [1].

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[1] See National Industrial Conference Board: *The International Financial Position of the United States.* New York, 1929.

British investments abroad were considerably larger — something like $20,000 million on long term only. For France no figures are available, but it is estimated that her investments stood at about 60 per cent of their pre-war figure. Germany, instead of being a creditor, was heavily indebted. Apart from reparations, her net indebtedness on long-term account at the end of 1928 was about $1,900 million and on short-term account over $2,000 million.

Looking back on the period before the present depression, it will be found that, on the whole, the foreign assets of all lending nations were growing and the net indebtedness of most debtor countries was also increasing. Long-term capital movements were about as large as before the war, but they were much less steady; the cross-currents were more numerous and important and the mechanism of international capital movements was more complicated. This partly explains why the distribution of the world's gold stocks was such as to make the position of many central banks very vulnerable.

The organisation of international finance has undergone a profound change, a change the very newness of which has involved difficulties and weaknesses at one point or another.

London is no longer, as before the war, the dominating financial market with a controlling influence on short-time capital movements and by far the greatest lender on long-term account. In 1927-28, New York was almost as important and it was clear that Paris, although temporarily handicapped, would soon emerge as a serious rival with a considerable capacity to export capital, the prime requisite of an international financial market. It was inevitable that this new organisation of international finance should handle things differently from London before the war, when decisive power was concentrated there. The three markets had not yet found satisfactory methods of co-operation, and the leading financial houses in the different countries had different traditions and experience. Moreover, although the funds available for export in the United States were at one moment or another very considerable, the importance of that export to the whole economic system of the country and the apparent immediate importance of maintaining a steady flow of capital was not so great as in England. Neither the need nor the tradition of foreign lending was so strong. In France, the tradition had been temporarily broken by the special difficulties which she had had to face and by the losses of foreign investments from which she had suffered. During this period therefore, when many borrowing countries were suffering from a serious dearth of capital, the streams available for their irrigation flowed, not with persistent regularity, but spasmodically. Not a little flowed into wrong channels and was lost. Not a little

was liable to be sucked back suddenly into the reservoirs whence it had come.

The instability of the international financial situation was enhanced by the large increase in the proportion of total loans made on short-term account. This development was due largely to the lack of confidence which created a desire among the general public to keep a large proportion of their funds in liquid form.

The manner in which they were likely to react was less easy to foresee and a new element of uncertainty thus arose.

The insecurity of the position was increased by the fact that the very countries whose credit was likely to be most affected by political changes had incurred foreign indebtedness, partly of a short-time character, on a very large scale. It has been estimated that, at the end of 1929, Germany had borrowed abroad no less than ~~11,200~~ 12,200 million marks or ~~$2,600~~ 2,000 million on a short-term basis. The existence of such borrowings increases the vulnerability of the international financial position, particularly of countries which are likely to be hard hit by a depression or subject to considerable withdrawals of foreign short-term capital. Thus the existence of an obligation on the part of Germany and some other countries in a similar position to pay large sums as interest on foreign loans and in reparations could not but contribute to a feeling of instability in the world of international finance. Germany's obligations were rigid ; but the in- and outflow of foreign capital was uncertain.

For similar reasons, the position of Australia and several South-American countries was somewhat unstable. They had grown accustomed to a large inflow of foreign capital and had a large burden of interest obligations — as illustrated in the following table :

Table XII. — Net Interest owed abroad (—) *or to be collected from abroad* (+) *per head of the population*, 1928, *in dollars* [1].

New Zealand	—27.6	Norway.	— 6.7
Australia	—27.5	Denmark	— 3.8
Canada	—22.3	Hungary	— 3.0
Argentine	—17.4	U. S. A..	+ 5.7
Union of South Africa	— 9.8	Great Britain . . .	+29.0

Another reason for instability in the international financial relations of certain countries — Australia, the Argentine and some

[1] Source : *Memorandum on International Trade and Balances of Payments*, 1927-1929, Vol. II.

other South-American States — is to be found in the character of their international trade. Their exports consist largely of raw materials, which are likely to fall heavily in price during a period of depression at the very moment when international capital movements are apt to change in such a way as to put, in any case, a strain on their balance of payments. In such circumstances, it is difficult to make a smooth adjustment and to prevent a breakdown in the credit structure.

Taken as a whole, the international financial position in the years before the depression was much less stable than before the war.

Chapter II.

STRUCTURAL CHANGES AND INCOMPLETE ADJUSTMENT IN THE YEARS PRECEDING THE DEPRESSION.

A. Crude Food Industries.

The present chapter deals with certain changes in the structure of the economic organism which may have exercised an important influence on the character of the present depression. Particular attention is drawn to certain fundamental changes in the economic system which had not, around the year 1928, been followed by the necessary re-adaptation of the various economic elements and had consequently given rise to a series of so-called maladjustments. Such structural changes and maladjustments exercised a double influence. They created an unstable situation, likely to be easily upset when attacked by outside disturbing forces — as, for instance, a depression in the business cycle. Secondly, the changes in the basic elements of the economic structure which had begun at this time continued and thus made necessary its further fundamental readjustment. As this could only be effected slowly and with great difficulty, some of the already existing evils tended in the following years to become more pronounced. This of course would have happened apart from any crisis and would have had its own depressing effect on business conditions. In fact the structural and the cyclical depressions occurred more or less simultaneously and it is not surprising that their combined effects resulted in a serious economic crisis. [1]

In an analysis of industries producing crude foodstuffs it is natural to begin with cereals and to refer especially to wheat,

[1] See Chapter VI C below.

the principal item in this group of commodities. The somewhat abnormal character of the situation is shown by the following figures for stocks of wheat during the last decade:

Table I. — World Stocks of Wheat. [1]

August of each year. Metric tons (000,000's omitted).

1921	10.2	1926	10.1
1922	10.8	1927	11.3
1923	11.1	1928	13.4
1924	12.4	1929	21.3
1925	9.3	1930	19.0

These figures seem to indicate a certain tendency towards over-production, especially from 1927 or 1928. In spite of the fact that the 1926 and 1927 crops were very light, stocks did not fall.

The total quantity of wheat available for consumption outside Russia and exclusive of seed requirements had increased about 10 per cent between 1909-1913 and 1925-1929. [2] Comparing the average figures for these two periods, the population of those parts of the world, excluding Russia and China, which consume nearly all the wheat produced, had probably increased by some 13 per cent. The greatest increase, however, took place in South America and other countries, where the consumption of wheat is lower than in Europe. If there was over-production, therefore, it must have been caused by a falling off in demand.

A closer analysis of the tendencies of supply and demand will show that already in 1928-1929 underlying forces were making for over-production. This term is taken to mean that total output can only be sold at prices which do not cover the production costs of the majority of producers or, in other words, a tendency of supply to exceed demand at a profitable price.

The following table, which compares the recent acreage under wheat and the yield per acre in different parts of the world with the pre-war figures, illustrates the changes in the factors influencing supply.

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[1] Source : *Wheat Studies*, Stanford University.

[2] *Actes de la Conférence internationale préparatoire de la deuxième Conférence mondiale du blé*, Rome 1931, pages 298 ff.

Table II. — Wheat Acreage and Yield. [1]

	Acreage hectares (000,000's)				Yield quintals per hectare	
	1909-13	1924	1926-29	1929	1909-13	1926-29
Europe (ex. U.S.S.R.)	29.3	27.1	28.5	28.1	12.6	12.7
U.S.S.R.	29.9	18.6	30.4	30.6	6.9	7.2
U.S.A.	19.0	21.3	23.7	24.7	9.9	9.9
Canada	4.0	8.9	9.6	10.2	13.3	12.4
Australia	3.1	4.4	5.4	5.7	8.1	7.1
Argentine	6.0	6.5	7.4	9.1 [2]	6.6	8.8

During the war the area under wheat in Europe declined by a fifth, the consequent deficiency in supply being made up chiefly by the United States and Canada, where the area in 1919 was nearly twice as large as in the period 1909-1913. In the years following the war, the wheat-growing area in Europe began to approach the pre-war level, this movement being very pronounced in Russia, where the total wheat area had at one time declined by a third from pre-war figures. While the United States reduced her wheat acreage during the first years after the war, other important overseas countries continued their wartime expansion. In 1909-1913, the total acreage under wheat in the United States, Canada, Australia and the Argentine was 32 million hectares; in 1926-1929 it had risen to 46 million hectares.

The yield per acre, of course, varied less. In Europe it recovered from the low figures which were chiefly due to direct and indirect war devastations. In Canada and Australia, it remained at a lower level than in pre-war days, while it rose considerably in the Argentine.

The factors which explain these changes in wheat areas and yield need some further discussion.

The first important change in post-war agriculture which it is necessary to stress is the great development of the use of machinery. Progress had of course been rapid before the war; after it, however, new and more efficient machinery was introduced so extensively as to change agriculture radically over large areas.

For grain cultivation in general, and especially for wheat-growing, cheap traction power is of very great importance. The

[1] Source : *International Year-Book of Agricultural Statistics*, Rome.
[2] 1928.

large-scale introduction of tractors led to considerable reduction of power costs in many countries. This was particularly true where oil was cheap, labour expensive and rent low. The saving was greatest in areas where a single crop like wheat predominated and where the harvest required a large seasonal increase in the demand for power. The tractor met this demand efficiently and cheaply, as it can work unexhausted twenty-four hours a day and needs no attention when the season is over. In other countries where labour and fodder were cheap, farmyard manure valuable, oil expensive, farms small, rent high, and farmers conservative, the tractor brought little or no reduction of costs.

Evidently, the tractor influenced costs chiefly in the grain-exporting countries with extensive cultivation and only to a much smaller extent in the importing European countries. The greater use of tractors in the former countries is seen in the following table, which shows the sales of American tractors :

Table III. — Exports of Tractors from the United States to Certain Countries and Domestic Sales in the United States, 1928. [1]

Argentine	4,846	Hungary	1,018
Australia	4,409	Italy	2,001
Canada	20,983	Russia in Europe	4,606
France	1,289	United States	99,491
Germany	3,046	Total	141,689

Like the tractor, the *combine*, a machine which reaps and threshes simultaneously, has increased enormously in importance in recent years. It had been in use since the 1860's, but only in dry districts, where climatic conditions permitted simultaneous reaping and threshing. It has in recent years proved possible to extend the use of the combine to those sub-humid districts where most grain is grown and in which it is often necessary to cover the ground twice in order to allow the grain to dry before threshing.

Like the tractor, the combine has reduced costs of production in regions where topographical conditions are suitable for it and where farms are fairly large. It has had little effect in most wheat-importing countries where farms average smaller, cultivation is intensive and frequent alternation of crops traditional. Another reason for its small influence in the latter countries is that in most of them straw, which is left on the field by the combine, is a valuable part of the harvest. It is not surprising, therefore,

[1] Source : *United States Foreign Commerce*, 1928.

that the number of combines has increased chiefly in overseas countries where extensive methods of cultivation prevail. In Canada, the number of combines in use was 791 in 1927, 4,341 in 1928 and 7,255 in 1929. During the period 1923-1929, about 68,000 combines were sold in the United States, two-thirds of the sales being made in 1928-29. The Argentine bought 3,161 in 1928 and 6,214 in 1929. Thus, the combine was only just beginning to have its effects on large-scale farming overseas in the years preceding the depression and had practically no importance yet in Europe.

Besides machinery, new seed varieties and dry-farming have made possible the cultivation of wheat and other grains in territories where a few years ago it would have been economically impossible. The application of scientific methods to the selection of seeds and plants is one of the striking factors in post-war agriculture. It had of course begun before the war ; but it is only in recent years that the revolutionary effects of these methods have begun to appear and it seems probable that their influence will grow in the future. A few examples of the important improvements made may be mentioned. The vast areas of Northern Canada had long been deemed unsuitable for wheat-growing because of the short summers which made impossible the maturing of known varieties of wheat, although these districts are in other respects excellent for the purpose. The development of a variety of wheat which needed only about 100 days, instead of 130, to reach maturity has created possibilities of wheat-growing in these enormous areas. Before the depression, wheat production in these districts was growing rapidly.

In the western districts of the United States and Australia, it was lack of humidity which prevented the growing of wheat and other grains. New drought-resisting strains have led to considerable wheat cultivation at very low costs because the combine can be used here to particular advantage.

While it is a relatively easy matter to produce a variety which has one specific advantage *(e.g.*, early maturity or strength of straw), experience has shown it to be a very difficult matter to produce a variety which is superior in all respects to those already grown. The new varieties have consequently proved most useful in such countries where it was important to overcome only one main obstacle — *e.g.*, too short a summer. Where conditions were favourable, as in most European countries, it has been much more difficult to find varieties of greater efficiency than those already grown. The development of wheat-growing in the dry districts has also been much helped by dry-farming *i. e.* the maintenance on the fallows of an earth mulch thus making the ground sufficiently humid for the wheat crops in the following year.

After the war, the use of fertilisers became more general. One reason for this is undoubtedly their lower cost. Since 1927, the average price has been at or below pre-war levels. Probably another reason is that farmers have learned how to use fertilisers to better advantage. On the whole, however, the increased use of fertilisers is a factor of minor importance in the improvement of post-war agriculture. Unlike mechanisation and improved seed, it has meant more in countries with intensive cultivation than in the large exporting countries.

These technical changes, which had only begun to show their full effects before the depression, implied a fundamental change in the structure of cereal cultivation. They tended to make it possible for certain countries to produce more and more grain at diminishing costs, while they reduced them much less in the greater part of Europe. Even though in important European districts, chiefly in the south, climatic reasons do not prevent the use of large-scale mechanical methods, the smaller size of farms and other social circumstances make them of less importance than in other parts of the world. From a long-time point of view, the root of the crisis in European grain-farming seems to lie in this fact.

The competition of overseas wheat in Europe has been favoured by the low shipping rates prevailing since the war. While the wholesale prices have been much above pre-war levels, freight rates have been about the same. Table V in the Appendix shows that this relative reduction in the costs of transporting wheat from one country to another was not offset by increases in import duties before the depression. In view of the substantial increase in duties on manufactured products during the years preceding the depression, it is rather striking that wheat duties, which are fairly representative of the duties on cereals in general, were kept practically stable. Thus, protection was not among the factors which, by stimulating the production of cereals, have led to a certain maladjustment in this industry.

Table IV. — Net Exports of Wheat. [1]

Metric tons (000,000's omitted).

	1909-1913	1926	1928
Argentine	2.4	2.0	5.3
Australia	1.1	1.4	1.6
Canada	2.0	6.8	9.9
India	1.3	0.2	—0.004 [2]
Russia	4.1	1.0	—0.2 [2]
United States	1.4	3.4	2.1

[1] Source : *International Year-Book of Agricultural Statistics.*
[2] Imports.

The changes in the production and exports of Russia have already been mentioned. In 1928, there was even a small net import of wheat. From the point of view of an analysis of world prices, it is not necessary to study the variations in domestic consumption in Russia, which is centrally controlled. From the point of view of the rest of the world, it is Russian exports that matter. As Table IV shows, these were very large before the war. After the war, however, Russian exports had practically disappeared from the world market and Europe had turned overseas for its supplies. This disappearance of Russia is the chief factor which explains why the increase of overseas wheat production had not led to a lack of balance between demand and supply long before 1928-29. It is obvious therefore that during the latter years the situation had become unstable. If Russia were to appear again as a large exporter, the balance on the world markets would be upset. Russia did not do so in 1928-29 partly because the Russian crop in those years was low. This helped to deceive the world as to the real character of the situation. As a matter of fact, and as later experience proved, Russia was making strenuous efforts to increase its production and exports of wheat by the introduction of the same methods of large-scale farming that had been used so effectively overseas. The number of tractors rose from about 2,600 in 1924 to about 31,900 in 1928. The number of combines also increased rapidly. These and other factors made possible the appearance of an increasing supply of Russian wheat on the world's markets in the following years.

The above analysis of supply conditions in the production of cereals tells, of course, only part of the story. It is also necessary to discuss briefly the character of the *demand*. Stocks only became swollen after 1927 and even after that date the growth, although in itself considerable, was small relative to total production. Since no organised destruction of stocks took place, practically all the wheat produced was consumed, though consumption *per capita* was no greater than before the war. This seems to indicate a fairly balanced position, although the growth of stocks during the two years preceding the depression was a little alarming. This impression of stability and lack of serious maladjustments was ill-founded, however. To judge the conditions after 1929, the probable trend of consumption must be compared with the probable trend of production as influenced by the factors briefly touched upon above.

Table IV in the Appendix shows that a substantial decline in the use of wheat had been taking place, as already explained in Chapter I B. Similar calculations for rye and rice point to a corresponding change in the consumption of these

commodities. A rising standard of living has made people turn to more expensive foods. Thus the demand *per capita* showed a tendency to decline.

It is necessary to take into account, however, that wheat is used not only for human consumption but also for the feeding of animals. Unfortunately, what quantity was used in this way during the period in question is not known.

It is probable, however, that only a small percentage of the world supply of wheat and rye was used for animal feeding. Any substantial increase of this percentage is also unlikely unless wheat becomes available at exceedingly low prices. In other words, the possibility of using wheat for animal feeding may serve as an ultimate check on wheat prices during a decline, but will not prevent a drop of prices to a level below the costs of the majority of European producers outside of Russia.

This brief study of demand and supply conditions of wheat around 1928-29 suggests that the over-production was relatively slight. Had it not been for the diverging tendencies of supply and demand the situation would not have been menacing. The world, in fact, seems to have been at the first stage of a development leading to a lack of balance between supply and demand.

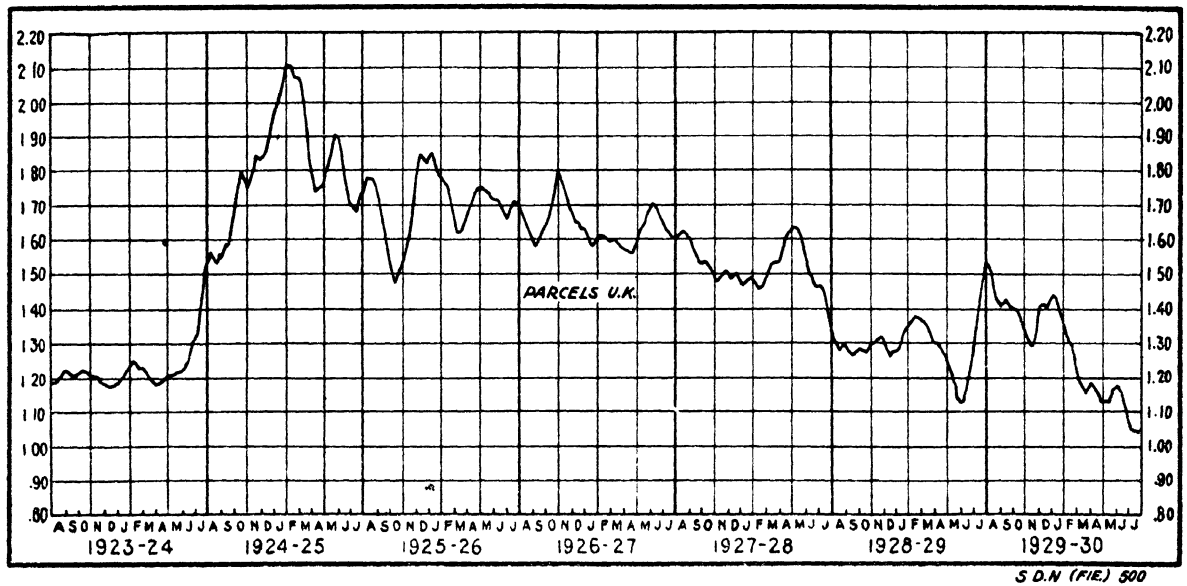
Given the tendency towards increasing production in 1927-1929 at the existing level of prices, over-production and a price drop at a not-distant date were to be expected. The demand for cereals being relatively inelastic, the fall in price would probably be considerable. This situation would continue until it had led to a reduction in output, probably through a reduction of the wheat areas in certain districts. Such were the prospects for the years following 1929, if nothing unexpected intervened.

One qualification must, however, be added. The demand for wheat in some important countries in the first stages of industrialisation has been increasing slowly but substantially. China's annual net import of wheat in the period 1924-1929 reached 1,500,000 quintals, while in 1909-1913 there was a net export of about a million quintals. Further, 3,500,000 quintals of wheat flour were imported, as compared with 750,000 quintals in the pre-war period. In the chief tropical countries, the consumption of wheat flour *per capita* has risen by about 13 per cent since 1913. It is obviously not impossible that the future demand from these sources may become so large as to affect fundamentally the situation of wheat in the world market. So far, however, the influence has been slight, and the chances in 1928-29 were that, during the next few years, demand from these countries would remain small, if wheat prices kept on a level profitable to the majority of wheat growers. This demand, therefore, could not prevent over-production and a drop in prices. (See Chart 2.)

Chart 2.

THE PRICE OF WHEAT. [1]

(British Parcels, U.S. dollars per bushel, three-week moving average.)



[1] Source : *Wheat Studies*, Vol. VII, 2, page 133.

One important aspect of the movement of prices and the production of wheat before the depression was that the bumper crop of 1928 did not lead to any considerable drop in prices and thus brought about no tendency to a restriction of wheat-growing in the following year. This partly explains why, in spite of a relatively light crop in 1929, the carry-over was abnormally high. Of course, the maintenance of prices at a fairly high level after the autumn of 1928 was due to the fact that part of the crop was withheld from the market and stored.

This policy began in Canada in 1927, partly under the influence of new marketing organisations, the Canadian Wheat Pool and its associate organisations. The Pool pursued a deliberate policy of maintaining prices. At the end of August 1929, it held, or had bought for future delivery, 80 million bushels, while the total carry-over in Canada was 87 million bushels. The influence of this policy on Canadian wheat prices, especially since the autumn of 1928, can be seen in Chart 3.

The policy of the Canadian Pool was, of course, not the only reason for the increase in stocks during these years. There seems to have been a general expectation that the drop in wheat prices which had taken place since 1926 could not continue, and that therefore it would be profitable to store wheat for some time and sell it, when market conditions had changed. In that way prices were maintained in the autumn of 1928, and wheat-growing was not contracted as the following table shows :

Table V. — Wheat Acreage outside Russia and China: [1]

Hectares (000,000's).

1926	92.3
1927	94.6
1928	97.8
1929	96.4
1930	98.8

The apparent contraction in 1929 does not mean that a smaller area was sown. The crop of that year was not good, and in consequence was in many districts not harvested at all, the area affected not being included in the statistics in certain countries. For instance, in Argentine the acreage harvested in 1929 was 2.6 million hectares smaller than in the preceding year.

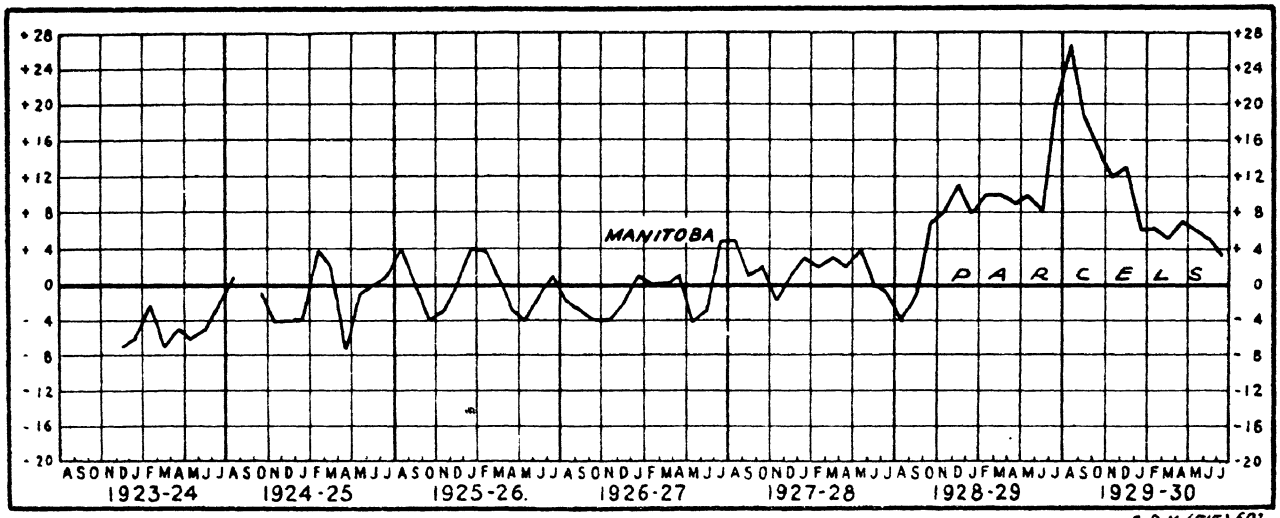
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[1] Irak, Palestine, Syria and Turkey are also excluded.

Chart 3.

DEVIATION OF PRICES OF CANADIAN WHEAT (MANITOBA NO. 3) IN LIVERPOOL FROM BRITISH PARCELS PRICES. [1]

(Monthly figures, U.S. cents per bushel.)



[1] Source : *Wheat Studies*, Vol. VII, 2, page 129.

The maintenance of prices during the larger part of 1929, when the bumper crops of 1928 were put on the market, on a not much lower level than in previous years protected the farmers from a considerable reduction in incomes. There has been a general impression that a crisis in cereal-farming started a year before the downward turn of the business cycle in the early autumn of 1929. Facts lend little support to this opinion, as the drop in prices was largely offset by the increase in volume. Official estimates of the total value of crops in the United States and Canada show a reduction by only 1 % and 4 % respectively. For other countries corresponding estimates are not available but the value of the crop of cereals, according to calculations based on prices and quantities of the most important of them, seems to have increased in Australia, Germany and Italy and to have declined very little in the Argentine and France.

Other facts point in the same direction. For example, in Australia where farm products in 1928 accounted for 87 per cent of the total export value, the average exports in 1924-1927 were £139 million, in 1928 £133 million and in 1929, in spite of the drop in wheat and wool prices in the last quarter, as high as £124 million. In Argentine exports, farm products are even more dominating, accounting for 95 per cent of the total in 1928 ; the annual export value in the period 1924-1927 was $920 million, in 1928 $1,030 million and in 1929 $953 million. In New Zealand, where exports of animal foods are decisive, and in coffee-exporting Brazil (see below), farm incomes in 1929 seem to have been on the same level as in the previous year.

It is impossible to escape the conclusion that, in the years immediately preceding the depression, the situation with regard to supply and demand was only just beginning to lose its stability. No heed, however, was paid to the signals of warning and no adjustment attempted. Hence, whether a business depression had appeared or not, the world price of cereals would certainly — in the absence of crop failures — have moved downwards.

So far attention has been concentrated on wheat as the leading cereal. The situation has been slightly different for the other cereals, of which rye is used for both human consumption and the feeding of animals, while oats, barley and maize are used mainly for the latter purpose. While the prices of various qualities of wheat declined by 10 to 25 per cent between 1926 and 1928, the prices of rye, barley and oats rose 20 per cent and more, and maize 30 per cent.

A certain tendency to a shift in the relative extent of the various cultures is noticeable, but only since 1928, when wheat prices had begun to drop from the high level of previous years.

Table VI. — World Acreage of Certain Crops. [1]

	Bread Cereals and Rice			
	Wheat	Rye	Rice	Total
1927 in per cent of 1909-13	115.6	106.5	111.7	112.7
1929 in per cent of 1927 .	99.3	95.0	101.2	98.8

	Fodder Cereals and Potatoes				
	Oats	Barley	Maize	Potatoes	Total
1927 in per cent of 1909-13	104.7	92.7	102.8	119.6	103.0
1929 in per cent of 1927 .	101.2	117.3	104.3	104.1	105.5

The increased production of meat, dairy produce and eggs, turning into pasture areas now under the plough has contributed to re-adjust production to the changed conditions. The consumption of these commodities had, as has already been indicated, grown rapidly since the war *(cf.* Chapter IB). In the United Kingdom, for instance, consumption per head of beef, mutton, pork, bacon and ham rose by about 40 per cent between 1913-1928.

Although no world figures are available for animal foodstuffs, it seems certain that the supply also increased more rapidly than that of cereals. However it is not necessary to analyse the difficult problem whether a change-over from the production of cereals to that of animal foodstuffs could have been effected in certain districts on a scale sufficient to prevent over-production of the former without, however, unduly depressing the price of the latter. The answer to this question would of course have depended principally on : (1) the elasticity of demand — *i.e.*, whether the volume of animal foodstuffs sold could be increased, by a reduction of price; (2) how quickly, given unchanged prices, would the demand for animal foodstuffs develop owing to growth of population, rising standards of living, etc. There can be no doubt that the demand for these products was rapidly growing even at constant prices, and it is quite conceivable that a sufficient transfer from cereals to animal foodstuffs might have taken place, without seriously depressing prices of the latter. Thus it was impossible around 1928-29 to foresee whether the necessary adjustment in agriculture implied only a shift from one product to another — which could certainly be effected

[1] Calculated on the basis of figures from the International Institute of Agriculture.

although not without great difficulties — large enough in certain mixed farming districts to affect considerably world wheat supplies, or whether nothing but a reduction of the food-producing population of the world could keep supply on a level which made profitable prices possible.

As a matter of fact, the arrival of a severe depression did keep down demand for the more expensive animal foodstuffs and did make a shift from wheat growing to the production of other foodstuffs still more difficult than it would otherwise have been, virtually preventing also any transfer of labour from agriculture to other industries. Thus, prices of both cereals and animal foodstuffs were depressed to very low levels, as will be further described below.

As the analysis so far has been confined to animal foodstuffs and cereals, it is necessary to add something about other vegetable foodstuffs, especially sugar and coffee. In the production of the former commodity important structural changes had taken place during and after the war. The price of raw sugar had fluctuated widely, but from 1924 the tendency had been downward, as the following table shows. In 1929, the price was only two-thirds of the average for the five years before the war.

Table VII. — Price of Sugar. [1]

(Cents per lb.)

Year	Java White	New York Raw	Year	Java White	New York Raw
1910-13 . .	—	2,718	1925 . . .	3,412	2,562
1920 . . .	9,712	—	1926 . . .	2,867	2,568
1922 . . .	3,212	2,977	1927 . . .	3,194	2,959
1923 . . .	3,866	5,240	1928 . . .	3,503	2,470
1924 . . .	4,411	4,186	1929 . . .	2,214	2,001

In the years preceding the war the output of beet-sugar was about as large as that of cane sugar. The proportion of the former had been rising for several decades, but during the war tended downwards. The war, which caused a reduction of European beet cultivation, stimulated a development of the cane-sugar industry. In 1918-19, cane-sugar production reached 75 per cent of the world supply and in the following year almost 79 per cent. Beet-sugar output had then fallen from 7-9 million tons before the

[1] Java, annual average selling price of V.J.P. white sugar.
New York, open market price of raw sugar.
Source : Java, *Amsterdamsche Bank ;* New York, *Willet & Gray.*

war to 3,3 million tons in 1919-1920, while cane-sugar output had risen to 13,3 million tons. Then a recovery of the beet-sugar industry began and annual output, under the stimulus of increased import duties and various forms of bounty, rose to about 9 million tons or practically the same in 1927-1929 as in 1912-13, although with a considerably increased area under cultivation. At the same time, cane-sugar output continued to grow, touching 18.3 million tons in 1928-29. Thus the increase in supply of sugar, as compared to pre-war days was due entirely to cane-sugar which had passed through a technical revolution and had reduced costs during the whole post-war period. This progress was particularly rapid in Java, largely owing to improved varieties. The annual yield per hectare in 1928-29 was almost twice as high as in 1919-1921. On the other hand, the cost of production of European beet-sugar was higher than before the war. Average costs were certainly much higher than the free market price in 1928-29, and production was maintained and increased only through import duties and bounties. Competent authorities agree that very little beet-sugar would be produced had it to be sold at world-market prices as they were in 1929.

The measures taken by Governments to reserve the home market for domestic production of sugar tended to a progressive limitation of the free market. As considerable variations in annual output are the rule, this limitation could but increase the instability of world-market prices. The existence of large stocks made the situation more unstable still.

Table VIII. — Sugar Stocks. [1]

Month of October, metric tons, (000's omitted)

I		II		III	
1913. . .	1,279	1922. . .	882	1926. . .	1,950
1922. . .	1,214	1923. . .	804	1927. . .	1,809
		1924. . .	551	1928. . .	1,880
		1925. . .	1,230	1929. . .	2,571
		1926. . .	1,451	1930. . .	3,216

The existence of very large stocks during certain periods has been partly due to attempts to maintain prices by means of various supply restriction schemes, which have increased output

[1] Cols. I and II, stocks in United Kingdom, Germany, France, Belgium, Netherlands, United States (parts), Cuba (parts).
Col. III, stocks in the same countries as for I and II and Poland and Cuba (interior).

Source : I — *Bagot and Thompson.*
II and III — *Czarnikov Ltd.*

and reduced consumption. Protective tariff policies and bounties have, of course, worked in the same direction.

The continued growth of stocks and the low prices of raw sugar in the years immediately preceding the depression show that output exceeded the quantity that could be marketed at a price profitable to the majority of producers.

The development of this industry since the war and its position in 1928-29 offers great similarities with that of the wheat-growing industry. The stimulus to production outside Europe given by the war, the technical progress which reduced costs only in certain regions, the refusal to let prices drop and lead to a restriction of output in regions with high costs, the consequent limitation of the free world market and the increase of stocks under the influences of efforts to maintain prices are aspects common to both industries and of importance as affecting their position and prospects in the following years.

The conditions governing a third important world staple commodity, coffee, were also to some degree similar. As seen from the table below, stocks were accumulated and prices were maintained at a level which stimulated an expansion of the industry and made production outrun consumption.

Table IX. — Output, Stocks and Price of Coffee.

Year [1]	Output [2] (Tons : 000's)		Stocks [3] (1,000 bags)		Price
	World	Brazil	In Europe U. S. A. + Brazil Ports	In interior of State of Sao Paulo	Rio de Janeiro Rio No. 7 Gold. frs. p. quintal
1913 . .	1,210 [5]	795 [5]	10,275	—	—
1921-22 .	—	—	8,700	—	166.71
1923-24 .	1,550	874	5,071	4,592	238.80
1924-25 .	1,402	850	5,085	1,786	178.67
1925-26 .	1,439	841	4,571	2,833	156.87
1926-27 .	1,652	1,041	4,720	3,312	187.14
1927-28 .	2,208	1,502	5,729	11,672	180.37
1928-29 .	1,728	1,062	5,383	8,785	98.09
1929-30 .	1,900	1,230	5,593	21,210	58.71

[1] From August preceding year to July.
[2] *Statistical Year-Book of the League of Nations* 1930-31.
[3] July — the month with the lowest stocks. *London and Cambridge Economic Service.* Stocks in the interior of Rio de Janeiro were 1,180 in July 1928.
[4] Average. *Statistical Year-Book of the League of Nations,* 1930-31. (one bag = 60 kg.)
[5] 1909-1914.

Before the war, heavy annual fluctuations in coffee prices were normal and, to mitigate these, producers in Brazil, a country which held and holds a commanding position, began to organise the carrying-over of a part of an abundant crop to some later year, when the crop was smaller. A few years after the war this policy was extended to the so-called " permanent coffee defence ", which aimed at a maintenance of the price at a " fair " level. By withholding from the market an ever-increasing stock as the table shows, it was possible to keep prices at an attractive level. Production expanded, stimulated by the high price, which made coffee-planting very profitable. Not only did the area planted increase rapidly outside Brazil — in Colombia, for example, it increased by more than one-third between 1926-1928, and in Haiti by about one-fourth — but also in Brazil itself the area increased 25 per cent in the same period in spite of some attempts to counteract this tendency. To continue such a policy for long was evidently impossible. A factor which did much to weaken the position was that the stocks were financed chiefly by foreign loans. If the stocks had been financed by taxes on the coffee planters, less money would have been available for new planting, boom tendencies in general would have been counteracted and the financial position of the country would have been less sensitive to changes in the international credit conditions.

After this brief review of the position of some of the important crude-food industries during the years preceding the depression, attention will be called to industries producing raw materials and half-finished goods.

B. Raw-Material Industries.

The situation in the raw-material industries around 1928-29 was even less clear than that in those producing crude-food products. On the whole, output does not appear to have increased more rapidly in the years following 1925 than during many earlier periods.

What matters, however, is not the aggregate increase or the actual increase in output of each commodity, but the increase relative to demand. To some extent, the rising standard of living in the countries which consume by far the largest part of the world's output of raw materials led to an increased demand for finer qualities of goods and for services rather than for greater quantities. Under such conditions, the demand for new raw materials might well be considerably smaller than when improving economic conditions lead rather to an increase in the quantity of manufactured goods required.

To form an opinion regarding the position of raw-material industries in the period preceding the depression, it is necessary to examine not so much absolute figures of production as the figures for prices, stocks and unused productive capacity. Here again the interpretation of facts is difficult. That raw-material prices were on the whole declining in the years up to 1928 and relatively stable in 1928-29 before the depression does not prove any tendency towards over-production. Technical progress in almost all the important raw-material industries was rapid during this period, and declining prices seem to have allowed the earning of fair profits by the majority of producing units.

The growth of stocks after 1925 and especially in 1928-29 is, however, a circumstance favourable to the opinion that a tendency towards over-production did exist. As, however, stocks in practically all cases were small relative to annual output, a study of such figures alone is far from conclusive. The same applies to an analysis of surplus productive capacity, such as was very evident in the case of some minerals. Unused capacity is the normal situation, not only in manufacturing industries, but also in raw-material industries, and it is difficult to determine whether excess capacity during these years was above or below normal.

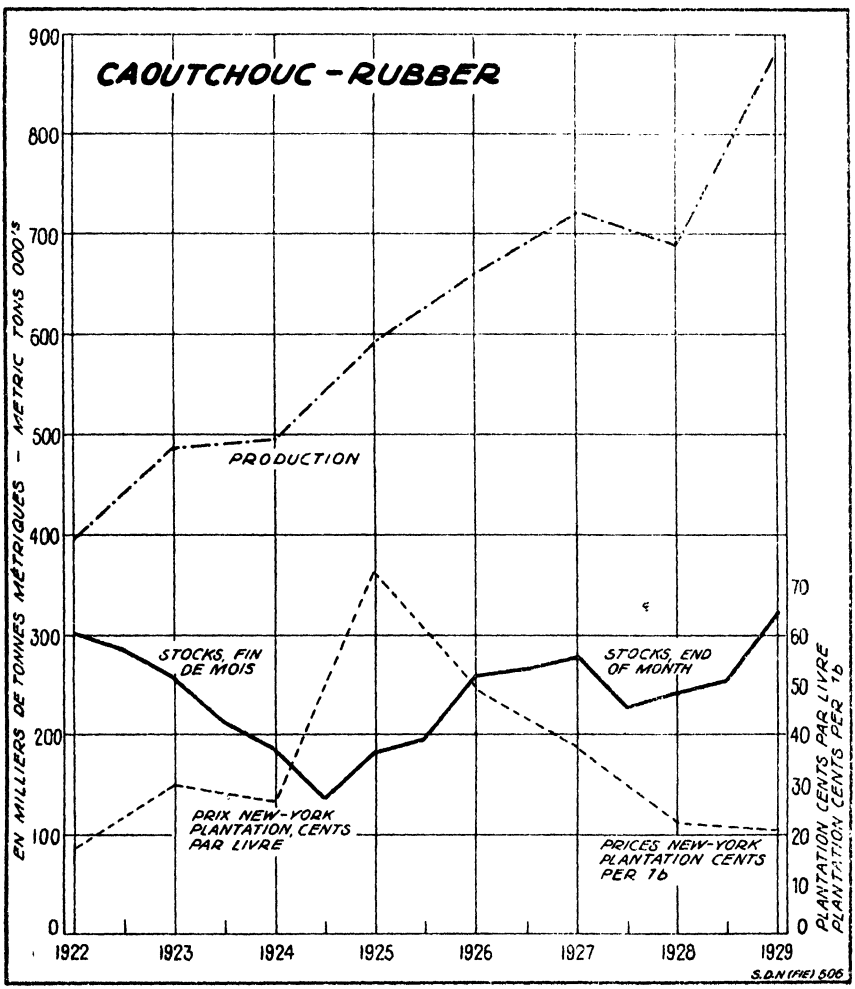
One circumstance which seems to indicate a lack of harmony between productive capacity and demand during the last years before the depression is the influence of monopoly control of several important basic commodities. Attempts were made to keep prices at a profitable level, without, except in one or two cases, restriction of productive capacity. Hence the effect of a period of prices that were fairly high when compared with costs was not only to reduce demand — through a larger use, for instance, of substitutes — but also to increase productive capacity. Rubber, copper and nitrates are conspicuous examples. This tendency of monopolistic policy to increase capacity in relation to demand and thus to create an actual or potential surplus capacity in 1929 has many points in common with what has happened in the case of wheat and coffee.

The following observations are intended to convey an impression of the position of the more important raw materials during these years.

In the case of rubber, both supply and demand are extraordinarily inelastic. Trees cannot be tapped before they are five years old; consequently, high prices cannot lead to immediate increases in output; low prices, on the other hand, largely fail to reduce supply, partly because native producers are not afraid of " spoiling the market " but continue to produce and others follow their example. The period under review has been domi-

nated by the working of the so-called Stevenson plan, which restricted exports from British territories. This restriction led to very high prices in 1925 and the two following years, as Chart 4 shows ; it consequently stimulated new planting

Chart 4.



Sources : Stocks : *London and Cambridge Economic Service.*
Production : *Statistical Year-Book of the League of Nations.*
Prices : *Standard Statistics.*

and the use of reclaimed rubber. The latter factor reduced demand and thus contributed towards the ensuing rapid drop in prices, whereas the new planting had no effect on output before 1930. In view of the fact that the increased planting in 1925-1927 was bound to lead to an increased capacity five years later, the situation in 1929 must be regarded as very unstable. Stocks were large and had been growing since 1926, and as production exceeded consumption in that year by 65,000 tons, or 8½ per cent, some over-production clearly existed. Only an increase in demand many times larger than that which had characterised the last decade or organised restriction of output could have avoided further over-production.

Cotton and wool prices dropped considerably in 1925 and 1926, possibly under the influence of changing fashions which reduced the demand for cloth. From then until 1928 their prices kept relatively stable and fairly high compared with pre-war days. In 1928, the average price for American cotton in Liverpool was 56 per cent and the London price for wool more than 100 per cent above the 1913 level.

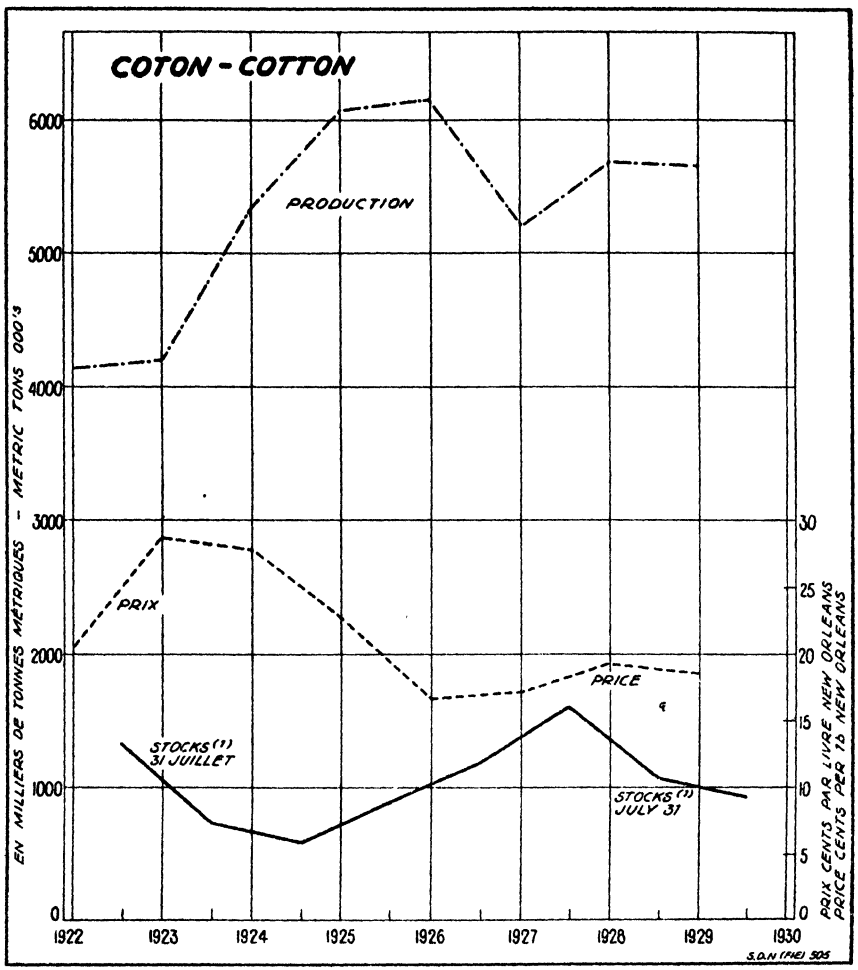
Cotton production shows no distinct trend in the five years before the depression. Stocks were large, but not larger than they had often been before. The conditions of supply seem to have been dominated by the activities of the cotton weevil in the United States, which reduced the crop in certain years to a very small figure. There was certainly no clear evidence of over-production or of any tendency in that direction. (See Chart 5.)

The case of *wool* was somewhat different. Production was rising rapidly — about 30 per cent in six years — and demand for woollen articles was continuously increasing. As no reliable figures of world stocks are available, it is difficult to say whether the high price level reflected a stable position. There is no special reason for assuming, however, that stocks were exceptional or excessive relative to annual output.

The price of *raw silk* declined from 1925 to 1928. Given the considerable technical improvements which had taken place, the price in 1928 about one-third above the price in 1913 would suggest a comparatively favourable situation. The tendency to increase output was very strong in the years immediately preceding the depression. World stocks are not known; but there is no special reason for assuming that output was increasing much faster than demand.

Increased demand for natural silk in a period when artificial silk was coming into use more and more affords striking evidence of the rapid rise of the standard of living, particularly in the United States and Europe. The competition of *artificial silk* seems to have been much less severe than was generally expected

Chart 5.



Sources : Stocks : *London and Cambridge Economic Service.*
Production : *Statistical Year-Book of the League of Nations.*
Price : *Standard Statistics.*

[1] **Stocks : U. S. A., Europe, floating to Europe, Asiatic mills.**

a few years earlier. The annual output was probably only about 2 per cent of the total output of other textile raw materials (compared by weight) and, although it was rising rapidly, it could not radically change the situation for the other textiles in the course of a few years.

The very favourable prices of artificial silk during the greater part of the post-war period naturally led to large increases in the capacity of the industry which finally overtook the rise in demand. Hence prices around 1928 were falling and a considerable surplus capacity seemed probable. Numerous attempts towards international regulation of the artificial-silk market did not cover sufficient producers to exercise lasting influence on the price level.

Other organic raw materials of great importance are timber and wood pulp. The prices of these products remained at a relatively high level during the larger part of the post-war period. This was particularly the case with timber, in the market for which Russian competition had almost disappeared. Prices in 1928-29 were 50-60 per cent above the pre-war level. By that time, however, Russian exports were increasing fast, although from October 1927 to September 1928 the total for timber and manufactured wood was 40 per cent below the pre-war figure for the territory now comprised within the Soviet Union. In the following year it had practically reached the pre-war level and a future increase was planned. Even before the depression, producers in Scandinavia had restricted output to counteract the effects of the increased Russian supply. It was clear, however, that very substantial reductions of production in countries other than Russia would be necessary, even in the absence of any business depression, if prices were to be maintained on a profitable level.

Pulp prices had also been remunerative up to the depression, but it was evident that the increase in capacity in 1928-29 in Canada, the United States and Scandinavia, at least as far as certain qualities of pulp are concerned, were so rapid that a corresponding increase of demand at existing prices was improbable.

The evidence pointing towards the existence of over-production or excess capacity in the case of inorganic raw materials is more conclusive.

The coal industry, more especially in Europe, was subject to a complex set of influences which tended to restrict demand within surprisingly narrow limits and to create very considerable local excess capacity.

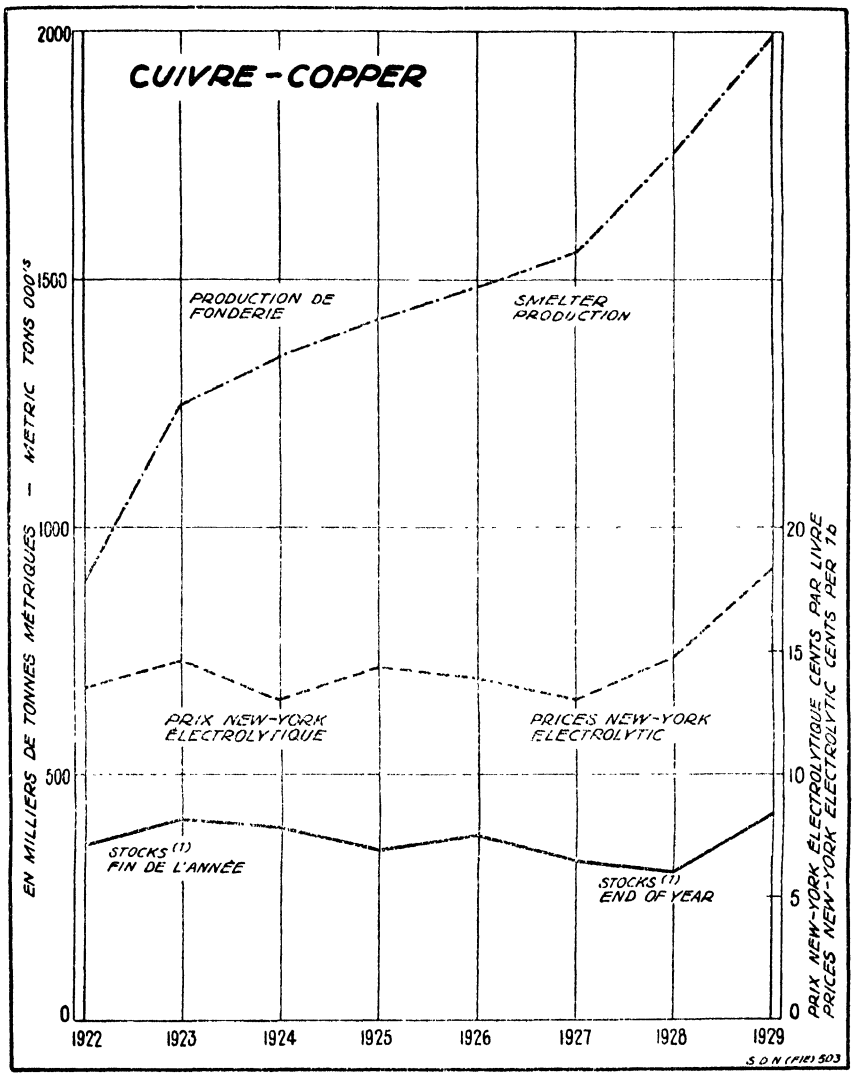
Output was increased in certain European countries and declined in others under the influence of the new frontiers, the German reparation payments in kind, technical development,

reconstruction of destroyed mines in France, etc. But the demand for coal remained stable in the post-war years as against a pre-war annual increase of 4 per cent. The output of lignite did, however, grow considerably. This relative retrogression of the most important source of power, in spite of the great expansion of manufacturing industries, is of course to be explained by the growing use of other sources, such as oil and water. It has been calculated that the increased use of these two sources of energy for purposes where coal would have been used before the war has reduced the demand for the latter by 200 million tons annually. Further the technique in the use of coal was much improved, and considerable economies effected. The price of coal varied a great deal from country to country, owing to the influence of import duties, subsidies and differential transport rates. The export prices were low compared with costs of production in most mines. Nevertheless, supply was maintained partly because mines deteriorate rapidly if they are not worked, partly because of the artificial stimulus afforded by Governments and coal cartels. But the productive capacity of several countries was not fully utilised. Monopolistic regulation of coal markets, which was considerable, did not succeed in stabilising conditions from a world point of view.

Mineral oils of course developed in an entirely different manner. In contrast with that of coal, the output of mineral oils increased over 100 per cent from 1920 to 1929. Many new oil-fields were discovered and developed and technical progress was rapid. For instance, the new " cracking " process raised the percentage of benzine obtained from oil by 50 per cent. In spite of the large influence of certain international concerns, production tended to exceed demand at existing prices. It proved exceedingly difficult to restrict output, as new wells were opened up and worked even when prices were low. Further, well-owners were afraid to stop production, as oil might be drained off by another well in the same field in the neighbourhood. Prices, which had risen up to the spring of 1926, declined in 1927 and 1928, while in 1929 a slight advance occurred. The level of prices in these years was considered low, but, in view of the considerable improvement in the technique of production, it would be unwise to assert that the industry was definitely suffering from over-production. Stocks were somewhat large during the whole period and increased considerably in 1929.

The situation of *copper* is illustrated by Chart 6. In 1929, visible and declared stocks were low and prices were mounting rapidly, facts which would seem to indicate the reverse of over-production, though they do not preclude the existence of a large surplus capacity. In 1926, Copper Exporters Incorporated

Chart 6.



Sources : Stocks : *London and Cambridge Economic Service.*
Production : *Statistical Year-Book of the League of Nations.*
Prices : *Standard Statistics.*

[1] Stocks : North and South America (refined and blister), United Kingdom, Havre, Japan (all kinds).

had been formed and had acquired the control of 90 per cent of world production. Export prices were maintained on a high level, especially in 1929. The high prices stimulated an expansion of production in mines with relatively high costs. It seems clear now that capacity around 1929 was increasing above the level which demand could be expected to reach at the then existing prices. One factor which influenced the situation was the growing use of substitutes for copper.

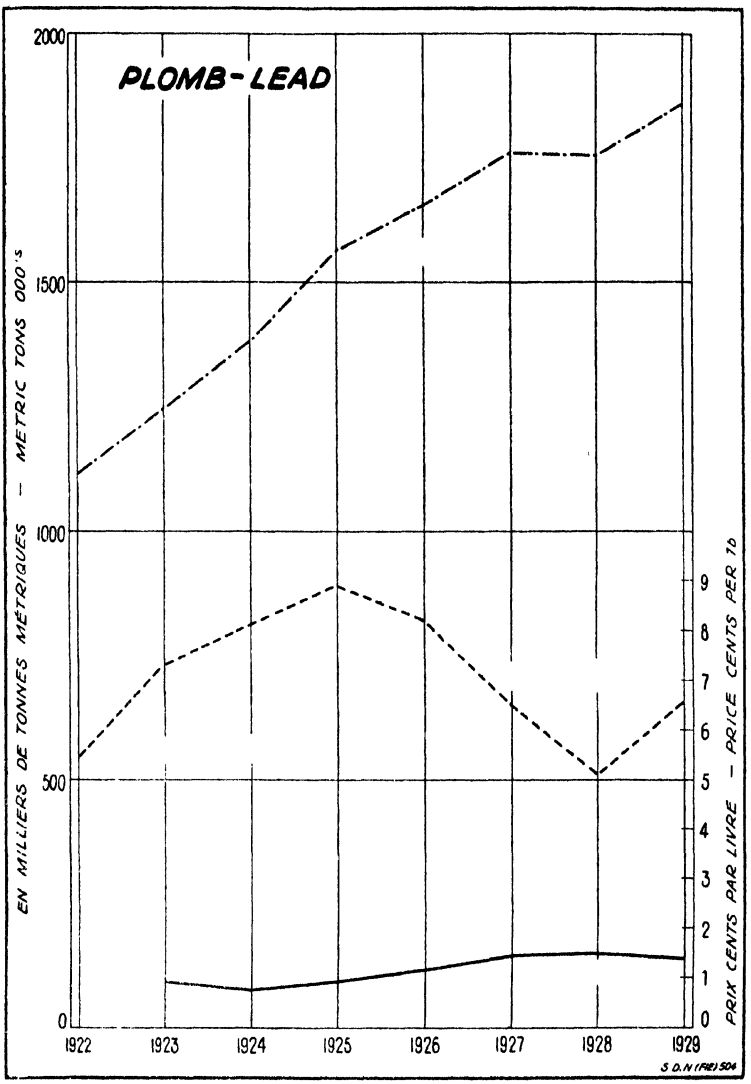
The prices of the most important other non-ferrous metals were falling in the years preceding the depression. For instance, the price of *lead* fell steadily after 1925, except in 1929, when it was influenced by cartel policy. Stocks mounted steadily, as Chart 7 indicates, and output expanded in new mines with very low costs. It is difficult to escape the impression that a considerable surplus capacity was developing.

The production of *zinc* was also growing fast under the influence of technical progress. Stocks were rising, but were not considerable, and there is no evidence of over-production before 1929. *Tin* production was also expanding, but stocks did not rise until the beginning of 1928. Since then, however, they have increased considerably.

When it is borne in mind that the period 1928-29 was on the whole a boom period during which stocks might have been expected to fall and prices to rise, the situation of non-ferrous metals strengthens the view that a certain tendency towards over-production was already showing itself before the depression. It is clear, however, that in some cases this tendency only began quite shortly before the turn in the business cycle.

The *iron and steel* industry had increased its capacity during and after the war for many reasons. New mines had been discovered in oversea countries, expansion for war purposes had taken place, German industry had been modernised during the inflation period, the destroyed French works had been reconstructed and up-to-date equipment had been introduced ; in general, the rationalisation of the industry had been rapid. The result was a great increase in capacity, much in excess of demand. The smaller volume of railway construction since the war reduced one important source of demand for iron and steel. Further, scrap-iron was being used to a greater extent in the production of steel. Around 1929 the situation, however, appeared to be fairly well balanced. Prices had been falling slightly in the earlier years, but, owing to technical progress, production was not unprofitable and the utilisation of capacity was not below what might be considered normal. In view of the fact, however, that 1929 was a boom year, it is evident that capacity was much in excess of more normal needs.

Chart 7.



Sources : Stocks : *London and Cambridge Economic Service.*
Production : *Statistical Year-Book of the League of Nations.*
Price : *Standard Statistics.*

[1] Stocks in the United States and visible supply in the United Kingdom.

Unlike that of other basic commodities, the monopolistic organisation of iron and steel was sufficiently strong to bring about a certain stabilisation of the market, in spite of the fact that it only embraced producers on the Continent of Europe. Not only the Continental Steel Cartel, but also producers in other countries pursued a policy of adapting output to demand in order to maintain prices. In view of this fact, the situation was not so unstable as a mere study of the relation between capacity and probable demand might give reason to believe.

In the case of *nitrates,* technical progress had been specially rapid both in Chile and in countries producing synthetic nitrates. The increase of production had been remarkable and very large stocks had accumulated. Prices were on a lower level than before the war, but this did not prevent large profits. Tendencies towards over-production were evident.

One general impression arising from a detailed study of these and other raw materials stands out. The conditions of supply were in almost all cases such that a drop in prices due to a decline in demand could not be expected to produce an immediate and considerable reduction of supply. This inelasticity of supply could not but make for violent price reductions should a business depression arrive accompanied by a reduced demand. In this respect, the situation of raw material industries included an element of instability, which has always manifested itself during previous depressions.

To what extent over-production or tendencies in that direction existed in 1928-29 is another question. That this was the case with rubber, timber, copper, nitrates and some others seems clear. But it must be remembered that a situation without any tendencies towards over-production hardly ever exists and that therefore conditions during these years were not necessarily different from those which prevailed at other times.

Two circumstances, however, perhaps suggest the existence of unusually strong tendencies towards over-production during these years. Monopolistic regulation of prices unaccompanied by corresponding regulation of output had led to an augmentation of capacity, thus increasing the chances that the latter would outstrip demand. This was a new factor which had not been so active before the war. The creation of a large number of cartels in itself points to a lack of balance between capacity and demand. Secondly, 1928-29 was a boom period in the business cycle ; consequently, the tendency of raw materials to fall in price and of stocks to rise indicate some underlying tendencies towards over-production. In other words, while a considerable excess of production over consumption — *i.e.*, over-production in a narrow sense was to be found only in the case of a few raw materials,

the existence of an excessive and unbalanced productive capacity in a large number of them under the general economic conditions prevailing in 1928-29 points to the conclusion that the situation was highly unstable. This conclusion is however uncertain and tentative.

C. Manufacturing Industries.

After the above brief account of structural changes and incomplete adjustment, the conditions prevailing in the crude-food industries and in the production of raw materials, it is necessary to examine from the same point of view the situation of the manufacturing industries. It is of course only possible to give a few brief indications. Many of the lasting or semi-permanent changes in demand or in conditions of production which appeared after the war called for fundamental readjustments of production and trade. Many new commodities, like artificial silk, radios, gramophones, motor-cars, etc., acquired a considerable and rapidly growing importance and it is clear that the simultaneous introduction of so many articles tended in several indirect ways to create maladjustments between demand and productive capacity for these and other goods, thus contributing to instability before trade had regained its normal balance.

Given, however, the prevailing lack of flexibility and imperfect adaptation to ends, readjustments, however necessary, can only take place slowly.

The result was that many industries found themselves possessed of a productive capacity greatly in excess of what was required to meet the effective demand at prices which would cover the costs of the majority of producers. That many industries had this experience during the post-war period is borne out by the figures for idle plant, as well as by the high level of unemployment in certain countries.

The existence of surplus capacity on a large scale is of course no new phenomenon ; it existed before the war during certain phases of the business cycle. There is reason for believing, however, that surplus capacity during boom periods of the business cycle was in those days relatively small compared to its extent in 1928-29. Further, fixed capital tends to play a growing rôle in manufacturing industries, so that the existence of unused capacity has become all the more serious.

The excess capacity in certain industries and countries was to a large extent the result of the economic changes caused by the war. It has already been mentioned that the special

war needs caused an expansion of certain industries, such as iron and steel, in excess of peace-time requirements.

The war also gave an impetus to the industrialisation of certain less industrialised countries. Manufacturing industries in such countries as Japan, China, India and the British Dominions, expanded at a rapid rate, and this continued after the return of peace and more normal conditions of international trade. Such a development was particulary serious for industries which, like the British textile industry, had their chief export markets in these countries and had extended their capacity in expectation of a large demand as soon as the war was over.

Another factor which made for a lack of adjustment between productive capacity and demand was the creation of new political frontiers in Europe. Many plants were cut off from their old markets by Customs barriers along the new frontiers, behind which new factories grew up and satisfied local demand. Further, the period up to 1925 was characterised by a rapid and almost general increase in the height of import duties on manufactured goods, which rendered difficult adjustments of productive capacity, that, in industries with much fixed plant, could only take place slowly. This economic adaptation was hindered and made still more difficult by the frequent alterations introduced into tariffs.

The rapid technical development during this period and the deep-going changes in organisation, commonly called " rationalisation ", were factors which increased the need for adaptability. There would seem to be reason to believe that this rationalisation movement proceeded at a more rapid rate than before the war, although the evidence is chiefly circumstantial. New machinery was introduced on a larger scale than before, as shown by the enormous expansion of the machine-producing industries. The growth in output of manufactured goods took place in many countries with no, or only a small, rise of the number of workers. Unfortunately, very little material is available to illustrate directly the increased productivity in manufacturing industries. In the United States, the annual increase in output per man was 3.5 per cent in the period 1922-1927, while the figures for 1922 are not much above those for 1905. In Sweden there was little increase from 1915 to 1920, but in the following nine years the annual increment was 3.9 per cent. In Germany, the number of employed workers seems to have been not quite 5 per cent higher in 1929 than in 1925, while the volume of production index was 27.5 per cent higher. This indicates an annual increase of output per man of about 5 per cent. In the United Kingdom, the output per head in manufacturing industries and mining

appears to have increased by 10 per cent from 1907 to 1924 and by 11 per cent from 1924 to 1929 [1]:

Table X. — Productivity in Manufacturing Industries in the United Kingdom, the United States and Sweden.

	United Kingdom [1]	United States [1]	Sweden [2]
1915 [3]		100	100
1920		91.8	102
1922		109.4	124
1924	100	113.2	125
1926		126.6	132
1927	106.8	127.2	133
1928	106.8		136
1929	110.7		143

Sources: *Report by the Committee on Finance and Industry*, London, 1931, page 309. *Recent Economic Changes in the United States*, New York, 1929, p. 454. *Arbetslöshetens omfattning, karaktär och orsaker* (The Magnitude, Character and Causes of Unemployment), Stockholm, 1931, p. 205.

It is possible and indeed probable, however, that rationalisation increased productive capacity more rapidly than actual output. The effects of this rationalisation do not seem to have shown themselves on a large scale until after 1925, when the re-organisation had been largely carried through in many industries and countries. Under the influence of continued rationalisation, the productive capacity in the years before the depression had greatly increased and its utilisation seems in many industries to have been appreciably lower than during earlier boom periods. Failure to recognise this fact and consequently to scrap old machinery and to liquidate less efficient firms contributed to the increase of capacity up to the end of the boom, not only in new industries where demand was growing, but also in old industries with little hope of a greatly increased future demand.

That certain new trades like the motor and the radio industry expanded beyond the limits of possible demand seems indubitable. The former industry in the United States had a capacity of almost eight million cars, but even in boom years, when demand for expensive consumption goods was inflated through speculative

[1] Annual output per worker employed.
[2] Output per hour.
[3] Swedish figures for 1913 are not available. The American figure for 1915 was 1 per cent higher than for 1913.

gains on the Stock Exchange, it did not produce more than 5.4 millions.

It has already been mentioned that railway construction after the war has been slight, and that its place has been taken by the building of motor roads. Fundamental changes were also taking place in sea transportation, where the effects of the great increase in shipbuilding during and immediately after the war were felt during the whole period. In spite of this large supply of coal-burning tonnage, the building of oil-driven ships was growing rapidly. Many yards which specialise in such ships increased their productive capacity. As long as the volume of international trade expanded under the influence of the business boom, shipping rates could be maintained on a level which yielded some profit. Rates, however, were lower in 1926-1929 than in 1922-1925 and the facts that on many routes they failed to rise during the boom year 1929 and that even then not all tonnage was in use indicate that capacity in sea transportation was somewhat ahead of a " normal " relation to demand.

The factors mentioned above and other circumstances contributed to the creation in many lines of industry of actual and growing surplus capacity in the years preceding the present depression. The cotton, textile, engineering and shipbuilding industries all had a large capacity in excess even of the demand in 1928, which was artificially stimulated by the boom.

The lack of balance in the development of the different industries in various countries was of course reflected in unemployment. Unfortunately, it is impossible to say to what extent unemployment was larger than before the war, but the following figures show clearly that it was considerable, varying, however, widely from country to country.

Table XI. — Percentage of Trade Union Members Unemployed in September 1926-1928.

Year	Germany [1]		Belgium [1]	
	A	B	A	B
1926	15.2	12.7	1.1	2.5
1927	4.6	2.4	1.4	3.5
1928	6.6	6.9	0.6	3.3

[1] A. = Wholly unemployed.
B. = Working short-time.

Table XI. — Percentage of Trade Union Members Unemployed in September 1926-1928 (continued).

Year	Canada	United Kingdom	Netherlands	Sweden
1926	3.3	13.7	7.2	9.1
1927	3.1	9.3	6.7	8.4
1928	2.2	11.4	4.8	7.8

There is no evidence that surplus capacity was accompanied by low profits in manufacturing industries as a whole. In Great Britain, earnings in per cent of total ordinary and preference capital in a number of joint-stock companies was 10.5 per cent in 1927, 11.1 per cent in 1928 and 10.5 per cent in 1929. These figures are not typical of British manufacturing industries as a whole and are not strictly comparable owing to changes in the capital of the companies included, but they make it probable that profits were fairly satisfactory. In the United States, corresponding figures for 1928 is 12 per cent and for 1929 13 per cent. The difference in the position of British and American industries was, however, probably much greater than these figures indicate. Though equally comprehensive statistics for other countries are lacking, it is clear from the indices of share values that conditions in manufacturing industries were generally prosperous.

The fact that considerable surplus capacity in a number of industries went hand-in-hand with good profits suggests that the price policy pursued may adapt itself to conditions of constant surplus capacity and prices may be fixed accordingly without any agreements between competing firms.

The existence of surplus capacity on a large scale naturally stimulated the development of monopolistic tendencies. National and international cartels were created to enable manufacturers to restrict cut-throat competition and to charge profitable prices. Such cartels in many cases tended to maintain surplus capacity by keeping alive firms which would otherwise have succumbed. The limitation of output in certain industries in order to keep up prices furthermore tended to increase the demand for other commodities and thus to increase productive capacity in other industries more than would have been the case if the former commodity had been sold at a lower price. This effect of a growth in the monopolistic organisation on excess

capacity is, however, only one aspect of its influence on the present depression.

Monopolistic tendencies involve an important change in the whole of an economic system founded on free competition, which may well have had a great influence on the business cycle in many different ways. Certain forms of inflexibility may exercise a stabilising influence, while others make for larger fluctuations. This question will be touched upon in Chapter VI. There is, however, less doubt that the failure of the economic system to adapt itself to more or less permanent fundamental changes of a structural character must tend to make it less balanced and stable than it would otherwise have been. For instance, a return to the gold standard at a higher parity than corresponds to domestic price and wage levels makes it necessary to adjust the latter in a downward direction, if harmony between the various economic elements is to be achieved. It seems certain that monopolistic price and wage policies and other forms of economic friction were partly responsible for the fact that the situation in 1928 was characterised by so much maladjustment. Another development which is generally believed to have taken place in business policy may have had a reverse influence. It is generally considered that surplus capacity in many industries, as well as the rise of tariff walls, has increased the practice of dumping. If dumping is erratic — that is, if sales abroad are made spasmodically — it must of course tend to disturb the normal currents of trade and introduce an element of instability.

In the field of retail marketing of manufactured goods several far-reaching changes took place during the period under review, among which may be mentioned the growing importance of chain stores. From the point of view of the present problem, another change is, however, of greater importance — namely, the growth of instalment selling. This practice has probably tended to reduce demand for goods of a durable character during the depression, as a part of the consumer's purchasing power had already been used to buy goods before the depression set in. The consumer is less willing and less able during times of economic difficulty to pledge his future income for new instalment purchases and may be under an obligation to pay off the debts incurred by earlier purchases. Thus the fresh demand for such goods is reduced. For other countries than the United States this factor has, however, been of very small importance.

The various factors mentioned above have of course played a very different rôle in different countries. Without entering upon an analysis of these differences, it is sufficiently clear that

structural changes, followed by a slow and insufficient adjustment, have made for instability of the economic system. Some reasons for this slow adjustment have been given above, but it should be added that the existence of a business boom in several countries in 1928-29 has exercised a great influence in this respect, as it made the situation appear much better balanced than it actually was.

D. Relative Prices and Wages.

In the previous sections of this chapter, the structural changes and lack of balance have been discussed from the standpoint of individual industries. They may also be regarded, however, from the point of view of relations between large groups of industries — *e.g.*, those producing primary products (foodstuffs and raw materials) on the one hand and those producing manufactured goods on the other.

Evidence of a maladjustment or over-production of three types has been considered — viz., abnormally large stocks; excess productive capacity and unprofitable commodity prices. The tendency of supply and demand to change in such a way as to produce any of these three sets of conditions in the near future has also been considered.

However, whether prices of certain commodities are unprofitable or not, whether they cover costs of production or not, depends upon how the latter are computed. If the reward to the individuals employed in the production of these commodities, in the form of wages or other incomes, is reduced, then even what used to be an unprofitable price may be sufficient to cover these reduced costs. In a certain sense, it may be permissible to speak of over-production of certain commodities even if prices cover costs — namely, if the incomes which make up the various cost items are "abnormally" low. Over-production of crude food products in this sense exists, even though the cost accounts show normal interest on the capital invested, if this result is reached by paying very low wages to the people working on the farms. The main question then becomes, what wages are to be regarded as normal ?

To answer this question is clearly impossible. Some people would be inclined to say that, if incomes in one group of industries, *e.g.*, agriculture, have moved in the same way — risen as much *e.g.* since pre-war times — as incomes in manufacturing industries, then the relation is "normal" and production of the two groups of commodities in a balanced state. This opinion, however,

assumes that the relative incomes and prices in the pre-war years can be regarded as normal. There seems to be little foundation for such an assumption.

Fortunately, for the purpose of an analysis of the question dealt with in this chapter, it is not necessary to find out anything concerning " normal " and " abnormal " income relations, a study which, difficult when conditions in one country are considered, would be still more difficult in a study of the relation between products of industries from different countries. What matters from the point of view of balance and stability of industry is not whether relative incomes, for instance those of farmers and town workers, have changed since some earlier date, but whether an adaptation towards the new conditions has taken place or not. If farm incomes have recently been much reduced and farmers are therefore unable to buy as much manufactured goods as they used to, then industries producing these goods will have a surplus capacity and some of their workers will be unemployed. Similarly, if coffee growers in Brazil have had their incomes reduced, European and American export industries, working partly for the Brazilian market, will suffer. On the other hand, a reduction of the purchasing power of certain classes or a failure of such purchasing power to rise as much as that of others is compatible with general balance and full utilisation of the productive factors, if industry has had time to adjust its output to these new conditions. In other words, the point to which importance should be attached is whether production has adapted itself to the new state of demand which is the outcome of a new distribution of the national income.

The question to be answered is therefore whether, in the years preceding the depression, changes in the relative incomes of different groups of producers had taken place or were taking place. If the answer is in the affirmative, the task becomes one of analysing whether this brought any changes in demand or other conditions to which industry had not adapted itself in the years immediately preceding the depression ; in other words, whether it made for instability and reduced power of resistance towards the attack of a business cycle depression.

As reliable statistics concerning the distribution of income are scarce, it is necessary to employ for a study of this problem such material as is available concerning the movement of prices of different groups of commodities. First attention will be given to prices of primary products on the one hand and of manufactured goods on the other.

While the price material for primary products and semi-manufactured goods is fairly satisfactory, there is unfortunately no adequate body of serviceable data relating to finished products.

Methods of production have undergone frequent changes and demand has substantially altered since before the war. Certain goods came into everyday use after the war which were practically unobtainable in 1913 ; wireless receiving sets may be mentioned as an outstanding example. The rapid growth of the automobile and aluminium industries further serves to illustrate the fact that indices based on 1913 weights cannot give a completely accurate reflection of price movements of manufactured commodities in the post-war period. To a considerable extent, it was in the " new " industries catering for the secondary needs of life that the greatest technical progress was made in the last decade, and the products of these industries have probably fallen more in price than such standard pre-war finished goods as are included in the ordinary indices of wholesale prices. Accordingly, no great reliance should be placed on the absolute height of the indices given below, but attention should rather be concentrated on the general character of the movement which they disclose.

Even when allowance is made for these factors, however, evidence drawn from several sources as independent of each other as possible clearly suggests that primary products in general ruled considerably lower in price than manufactured goods in most parts of the world throughout the entire period 1922-1928.

A comparison may first be attempted of the relative price movements of raw materials and manufactured products considered as a whole. The following table shows that indices of prices for finished products were substantially higher than corresponding indices for raw materials.

Table XII. — Indices of Prices of Finished Products expressed as Percentages of Indices of Raw Material Prices. *

	1922	1928		1922	1928
Canada	104	96	Sweden	123	103
Denmark . . .	130 [1]	129	U.S.A.[3]	107	106 [5]
Germany . . .	111 [1]	119	U.S.A.[4]	121	110
Norway	100 [2]	105			

* The original indices are based on the year 1913 in all cases except the first series for the U. S. A. in which the base year is 1916.

[1] 1925. The raw material indices include partly manufactured goods.

[2] 1923.

[3] Index of Bureau of Labor statistics. Identical commodities.

[4] Indices of National Bureau of Economic Research.

[5] 1925.

Had statistics for a range of years been given in the above table, it would have become apparent that the price discrepancy was greatest in each country during the various periods of economic depression. With the recovery from depression there was a well-marked tendency for the indices to approach each other in all countries. Even in 1928, however, manufactured goods appear to have ruled relatively higher in price than raw materials (as compared with 1913) in many parts of the world. The only apparent exception among the countries included in the above table is Canada. A detailed analysis of the Canadian price statistics suggests, however, that, if groups including precisely the same commodities in different stages of manufacture were available, the indices for that country would show the same relationship as that observed in other countries.

A more detailed enquiry into relative price movements in recent years, undertaken by the League of Nations with the assistance of certain national statistical offices [1], offers strong corroboration of this conclusion. The figures below show for 1928 the price indices of certain groups of semi-manufactured or manufactured goods as percentages of the indices of raw materials of similar origin:

1.	Great Britain . . .	Finished foodstuffs	105
2.	Germany	Semi-manufactured goods:	
		(a) of mineral origin	119
		(b) of vegetable and animal origin	108
3.	France	*(a)* Finished foodstuffs	103
		(b) Semi-manufactured goods of vegetable and animal origin for industrial use	106
4.	Italy	*(a)* Finished foodstuffs	92
		(b) Finished products of mineral origin	128
		(c) Finished products of vegetable and animal origin for industrial use.	115

[1] The Secretariat is indebted to the British Board of Trade, the Statistique générale de la France, the German Statistisches Reichsamt and the Italian Istituto Centrale di Statistica for the preparation of these indices. Certain of them have already been published in the League of Nations *Memorandum on Production and Trade*, 1925-1930/31, and they will subsequently be treated in greater detail.

In every case for which more or less comparable series are available (except Italian foodstuffs) the more finished goods had risen more in price since 1913 than the raw materials from which they are made. In general, the margin was least in the case of foodstuffs, which undergo less processing before final consumption, than industrial goods.

An analysis of the prices of individual commodities in various stages of manufacture, from raw materials to finished form, also shows that, during the post-war period, the higher a given commodity stood in stage of manufacture the more had it risen in price since 1913. Such an analysis has been made for several years in the League of Nations *Memoranda on Production and Trade*; in the following table are shown some representative indices for some of the more important countries for which serviceable data are available in official sources.

Table XIII. — Prices of Certain Manufactured Commodities expressed as Percentages of the Prices of the Raw Material employed.

1928.

United States		Canada	
Wheat	100	Grain	100
Flour	111	Flour	103
Bread	126	Bakery produce	124
Calf skins	100	Milk	100
» shoes	108	» products	107
Copper	100	Silk, raw	100
» wire	108	» manufactured	126
Wood pulp	100	Lead	100
Newsprint paper	139	» pipe	136

Table XIII. — Prices of Certain Manufactured Commodities expressed as Percentages of the Prices of the Raw Material employed (continued).

1928.

Germany		Sweden	
Rye	100	Wood	100
» flour	103	Wooden articles	125
Pigs	100	Hides and skins	100
		Leather	113
Pork	109	Shoes	130
Cotton	100	Pulp	100
		Cardboard	120
Cotton yarn	106	Paper	129

These indices happen to exclude some of the industries in which the greatest technical advances were made in the post-war period, but they are representative of a wide range of business. The relative prices in the years preceding 1928 are similar to those shown in the table.

One aspect of post-war changes in the relative prices of primary and manufactured products on which attention has been particularly concentrated in recent years is the divergence in the price movements of agricultural and industrial goods. Relatively low prices of many crude foodstuffs obtained throughout most of the period 1922 to 1928. After the crisis of 1920-21, index-numbers of agricultural prices were much lower than those of industrial goods. In 1924 and 1925, however, a considerable improvement took place in the position of agriculture in most countries ; cereal prices rose markedly, as did those of many other agricultural products. In 1926, however, prices of several important foodstuffs like wheat again began to fall. In 1925, the discrepancy was less than in 1922, but in many countries it increased again after the former year.

It is not so much the absolute level of the prices of this particular class of raw materials which is of interest in the present connection as their level in relation to the prices of other groups of products and, in particular, industrial products. The material for such

a comparison is not entirely satisfactory ; many of the existing indices of agricultural prices are based on pre-war weights and do not take into account the shifts that have taken place in the character of agricultural production in response to changes in the relative prices of different groups of farm products. These shifts, particularly over a long period of years, may be of considerable importance.

The evidence presented by different groups of indices drawn up on various principles is, however, sufficiently uniform to afford a convincing corroboration of the figures already shown. For instance, the index-numbers of agricultural products were considerably lower than the general wholesale price index in most countries.

Where group indices for agricultural and industrial products are available they point equally emphatically in the same direction : in Germany, for instance, the purchasing power of the former in terms of the latter was 89 (base 1913 = 100) in the crop year 1924-25 and 93 in 1928-29 ; on account of the short cereal harvest of 1926-27, it rose markedly in that year. In Poland, official indices for agricultural and industrial products based on 1927 showed a relationship between the two groups of 71 (industrial products = 100) in 1922, 90 in 1925 and 93 in 1928.

In certain countries special indices of the prices of articles purchased by farmers have been compiled. Throughout the period 1922-1928 they were considerably higher than the indices of the agricultural products, from which the farmer derived his income.

Table XIV.

	Agricultural Products	Articles purchased by Farmers	Relationship (Articles purchased by Farmers = 100)
Sweden [1] 1922-23	142	169	84
1925-26	147	152	97
1927-28	143	152	94
U. S. A. [2] 1922	124	152	81
1925	147	159	92
1928	139	156	90

Source : Index Numbers of Prices of Agricultural Produce, International Institute of Agriculture.

[1] Base 1909-1913. The figures are averages for two years.

[2] Base 1910-1914.

In countries whose agriculture consists chiefly of meat or dairy farming, the discrepancy between agricultural prices and prices in general was much less than in countries where cereals play the greatest rôle. Animal foods ruled relatively high in price throughout most of this period. In England, for example, the index-number of agricultural prices stood as high as or higher than the general index-number of wholesale prices published by the *Statist* in every year between 1922 and 1928, except in 1924. This was due to the high prices prevailing for most fruits, vegetables, meats and animal products, which account for over three-quarters of the English agricultural price index. The prices of cereals and farm crops were much lower than those of other agricultural products and of commodities in general throughout the whole of this period.

Table XV. — Price Indices of Agricultural and other Products.

(Base 1913, unless otherwise indicated.)

Country	Group	Average for the Year	
		1922	1928
Australia.	Cereals and vegetables	148	157
	Meat	143	161
	Dairy Produce	156	166
	Metals and coal	186	183
Belgium[1].	Foods	338	879
	Fuels	424	825
	Metallurgical Products	338	790
	Textiles	432	1,124
France. .	Foodstuffs	—	845
	Minerals and Metals	—	522
	Textiles	—	840
Spain . .	Foodstuffs	174	176
	Metals	152	148
	Textiles	149	151
United Kingdom . (*Economist*)	Cereals	151	153
	Minerals	150	115
	Textiles	181	165

[1] April 1914 = 100.

It should not be concluded from the above discussion that the price situation in the period 1922-1928 was such as to place the producers of foodstuffs in an inferior economic position to the producers of other raw materials. In the latter part of this period, indeed, foodstuffs in general ruled relatively higher in price than mineral and metallurgical products. In Table XV above, certain group indices which, though far from being ideal, afford some evidence of value on this point, are shown. The groups are never identical in composition and the figures for one country must not be compared with those for another.

The above table shows that the relationship between the prices of foodstuffs and other classes of raw materials changed markedly in favour of the former between 1922 and 1928. Since 1924, foodstuffs have ruled relatively higher in price than minerals and metals in almost every country considered. The only exception to this statement in 1928 was Australia. The position in this country must be ascribed in large measure to the effects of the tariff, which keeps up the prices of most industrial products, while the price of those crude-food products of which Australia has a net export surplus are naturally determined by world market conditions.

It is not necessary to draw attention to the relatively high level of textiles in all countries throughout the period considered. Flax and wool ruled particularly high ; in 1926-1928, both these commodities were more than double their pre-war price. Silk was also relatively high until 1926 ; in that year the competition of artificial silk began to be felt very severely and silk prices fell steadily. Cotton prices reached their maximum in 1923 or 1924; subsequently they dropped steadily and recovered somewhat during the general upward movement of 1928.

The tendencies indicated in the above table may be further illustrated by the special indices of various groups of raw materials prepared by certain national statistical offices in connection with the League of Nations enquiry into relative price levels to which reference has been made above. Some of these indices for the year 1928 are shown below :

Table XVI. — Price Indices of Various Groups of Raw Materials, 1928 (1913 = 100.)

	Germany	Italy	France
Raw materials of vegetable and animal origin :			
(a) for foodstuffs	129	529	565
(b) for industrial use	139	522	777
Raw materials of mineral origin. . .	116	416	540

A series of index-numbers relating to " foods " and " non-foods " compiled by the American National Bureau of Economic Research is of particular interest for the light it throws on the price movements of these groups in different stages of manufacture.

Table XVII. — Price Indices of Various Groups of Commodities in the United States.

(1913 = 100).

	(1) All Commodities		(2) Producers' Goods destined for human consumption		(3) Consumers' Goods processed	
	Foods	Non-Foods	Foods	Non-Foods	Foods	Non Foods
1922 . . .	136	157	122	131	144	180
1924 . . .	144	165	138	138	147	193
1926 . . .	149	160	138	135	153	180
1928 . . .	151	154	149	132	152	176

Foodstuffs as a group fell more than non-foods during the depression of 1920-21 ; they gradually rose in price while the latter fell quite steadily since 1923 : by 1928 the two groups stood at practically their pre-war relationship. The foods index in the first series above, however, contains manufactured as well as raw products ; similarly with the non-foods index. Columns (2) and (3) give indices for these two groups which are more clearly divided according to stage of manufacture. Producers' goods destined for human consumption can be taken as roughly equivalent to raw materials and partly manufactured goods (such as wheat and flour, cotton and cotton yarn), while the indices for consumers' goods relate entirely to manufactured products ready for consumption (such as bread and cotton piece goods). The foodstuffs in the former group stood somewhat lower in price than non-foods in 1922, but they had acquired their pre-war equilibrium with the latter by 1924 and rose considerably between that year and 1928, while non-foods fell slightly. The relationship between the indices for consumers' goods is of quite a different character : non-foods stood very much higher in price than foods throughout the entire period. The margin between foodstuffs in the producers' stage and

ready for consumption diminished. It was very much less than the margin between other commodities in these stages.

These indices do not confirm the view sometimes held that the greater part of the discrepancy between the prices of goods in different stages of manufacture is to be explained by the large number of wholesalers and other dealers ; this number is, on the whole, probably proportionately larger for foodstuffs than for other articles. The explanation is rather that foods characteristically undergo fewer and simpler processes of manufacture on their way from the primary producer to the ultimate consumer. The above series clearly suggest that over the period 1922-1928 price relationships in the United States tended to move to the advantage of the producer of raw foodstuffs and that (as measured in relative prices) his position in the latter part of this period was more favourable than that of the producer of other raw materials.

The effects of all these changes in relative price levels on the extent and character of international trade in the post-war period were considerable. Attention may first be directed to changes in the barter terms of trade between industrialised and raw-material and food-producing States. An examination of the import and export price indices of States whose imports or exports consist chiefly of one of these groups of commodities shows that throughout this entire period the States exporting manufactured goods were able to buy their imports of foodstuffs and raw materials relatively cheaply, while the States exporting crude foodstuffs and raw materials had to give up a much greater quantity of these products than in 1913 in return for the same amount of manufactured goods. The discrepancy between the import and export price indices was greatest in 1920. With the recovery from the crisis of that year, the indices tended to move closer together until 1925 ; between 1925 and 1928 the movement was less regular.

In the following table are set out the gold import and export price indices of certain representative States. The first three States are primarily exporters of manufactured goods and importers of raw materials ; in 1928, for instance, manufactured goods accounted for about 75 per cent of their exports. The last three States export chiefly raw materials and import manufactured goods ; in the year mentioned raw materials and foodstuffs accounted for a similar proportion of their exports. The fact that the highly industrialised States enjoyed favourable barter terms compared with 1913 throughout the whole period emerges clearly from the following statement which shows how many units of its exports each of these countries had to give up for 100 units of its imports.

Table XVIII. — Terms of Exchange in International Trade.
(Base 1913 = 100.)

	1924	1926	1928
Importers of Raw Materials and Foodstuffs.			
Germany	105	95	95
Switzerland	92	94	97
United Kingdom	82	82	84
Exporters of Raw Materials and Foodstuffs.			
Argentine	136	137	—
India	117	112	105
Dutch East Indies	115	120	122

The peculiar position of Germany in 1924 is obviously due to the depreciation in the value of the currency which at that time made exports of all kinds of goods cheap relatively to imports ; after the re-valuation of the mark, this phenomenon disappeared and the German export and import indices show the same relationship as those of other industrialised States.

Many causes have contributed towards this discrepancy in the movement of prices of primary products and manufactured products. We must consider, in the first place, the various factors affecting the relation between crude foodstuffs and manufactured goods. The relative rise in the prices of the latter need not depend upon a greater increase in nominal wages or incomes in manufacturing industries, but may be due to increases of other cost items. There can, for instance, be no doubt that taxation has weighed more heavily on the later stages of production. After the war, most States were left with a greatly increased burden of expenditure on the service of public debt ; further, taxation was increased in order to provide for new expenditure on social purposes and in some cases on armaments. The depressed condition of agriculture resulted in the main burden of the new taxation being placed on manufacturing industries. A large part of the social expenditure had to be borne directly by workers and manufacturers through the payment of social insurance premia, and in other ways. An obvious example of a common post-war tax which affects manufacturing industries more than primary production is the turnover tax. When imposed on each exchange of goods which takes place on the way from the primary to the final procedure, this tax naturally increases the price of the finished product more than that of the raw material. Corporation taxes also affect manufacturing industries to a greater extent than agriculture, in which individual or family enterprises dominate.

There can be no doubt, however, that one important reason why relative commodity prices have moved in the way indicated above is that wages and incomes in manufacturing industries have risen more than in agriculture. The following wage data in Table XIX illustrate this movement.

A comparison between wages in industrial and agricultural pursuits is rendered difficult on account of the fact that a large part of agricultural wages normally takes the form of payments in kind — *i.e.* board and lodging. For several countries, indices making allowance for this fact are available ; these indices show clearly that in certain countries such as the United States and Sweden, where there has been no special legislation enforcing minimum wages in agriculture, the rise in wages of agricultural workers since before the war has been considerably less than in the case of industrial workers.

Table XIX. — Indices of Nominal Wages of Industrial and Agricultural Workers. *

(Pre-War Base.)

		1924	1928
Australia	Industry and Agriculture	171	183
	Agriculture	174	194
Canada	Industry	184	188
	Agriculture	197	196
New Zealand .	Industry and Agriculture	153	165
	Agriculture	123	164
Sweden	Industry	211	224
	Agriculture	190	185
Great Britain .	Industry and Agriculture	170	170-175
	Agriculture	156	176
U. S. A.	Manufacturing Industry.	211	224
	Agriculture	163	163

Source : International Labour Office.

* The indices shown are computed by different methods and are not comparable from country to country nor, in all cases, from group to group within the same country. In Australia, those for both industry and agriculture refer to weekly rates of men ; in Canada, industry—hourly rates of chiefly skilled men, agriculture—annual rates of men ; in Great Britain, industry—weekly rates of men and women, agriculture—weekly rates of men ; in New Zealand, industry—weekly rates of men, agriculture—weekly rates of men and women ; in Sweden, industry—daily earnings of men, agriculture—annual earnings ; in the U. S. A., industry—weekly earnings of skilled and semi-skilled men, agriculture—daily rates.

In all countries, except Australia and Canada, industrial wages rose considerably more than agricultural wages between 1913 or 1914 and 1924; in the United Kingdom, special minimum-wage legislation for agricultural workers was introduced after that year, with the result that the indices for the two groups of wages stood at about the same level in 1928. In most countries which had no special legislation of this kind, industrial wages rose a little between 1924 and 1928, while agricultural wages remained steady or fell. Thus, the wage discrepancy was somewhat increased.

The cost of living has of course risen in all countries since before the war, but not so rapidly in most cases as money wages. In practically every country for which data are available, real wages in 1928 stood well above the pre-war level. The rise is not comparable from country to country on account of the different methods of constructing the indices. For manufacturing workers it appears to have amounted to some 35 per cent in the United States, 32 per cent in Sweden, 25 per cent in Switzerland, 18 per cent in Australia and so on. In view of the fact that the national income of all these countries was rising, an increase in wages did not necessarily indicate any change in the distribution of that income. The rise in the real wages of agricultural workers, if computed with the aid of the usual cost-of-living index, has, however, been less than for industrial workers, but to some degree the difference may be compensated by the fact that the cost of living has not risen so much for farm as for town workers.

These figures refer only to wages of agricultural workers and not to incomes of independent farmers, who constitute a considerable proportion of the people working on the land. Cost accounts and other data indicate that the net money incomes of independent farmers have in many countries risen less than agricultural wages. Thus, the discrepancy between the movement of incomes of producers and industrial workers is greater than the figures above indicate.

There are of course many reasons for this movement of wages and incomes. They can all, however, be dealt with in terms of changed conditions of supply and demand. The rapid technical progress in food-producing industries has been discussed above. The increase in demand was probably not proportionate. Hence, a declining percentage of the world's population was needed in food-production. A change in human activity did, as a matter of fact, take place. Evidently, however, the population on the land did not fall off rapidly enough to restrict supply of food products sufficiently to enable wages and incomes in agriculture to rise as much as in other industries. In other words, the mobility from agriculture to other industries was insufficient.

In certain countries such as Canada and Australia, however, where the technical progress in food-producing industries was particularly rapid, there was of course no need for a reduction of the population on the land. On the contrary, in certain areas, it was necessary that a rapid increase should take place. Agricultural wages rose in these countries as much as wages in manufacturing industries.

It is not necessary to consider here all the influences which checked the movement of labour from the land to other occupations. One factor was the existence of considerable unemployment in manufacturing industries in most countries, which made it very difficult for farm labourers to obtain work in other industries. In some countries, trade unions pursued a policy designed to keep wages high in important industries.

In the world as a whole, a relatively small reduction of the food-producing population would have been sufficient to cause a relative rise in the prices of crude foodstuffs, owing to the fact that demand for food products is relatively inelastic. In some countries, however, higher prices of foodstuffs would have led to an expansion in food industries still greater than that which actually took place. Hence, a correspondingly great reduction of the crude-food industries in other countries would have been called for.

Somewhat similar causes contributed to the fact that raw-material prices fell in terms of manufactured goods. Technical progress was, as explained in the previous section, very rapid in several raw-material-producing industries. One factor which, as has already been mentioned, tended to keep down demand for raw materials was that the rising standard of living frequently brought about a demand for finer qualities rather than for a greater quantity of goods ; or a demand for services rather than for commodities. The possibility of carrying out a rapid contraction of the people employed in raw-material industries was in many countries small — for instance, in the countries in an early stage of economic development where manufacturing industries were weak. Higher duties on manufactured goods stimulated the expansion of these industries in such countries and thus tended to make a transfer of labour in this direction easier. This, however, is only one side of the influence of tariffs. The policy of increasing import duties on manufactured goods pursued by certain raw-material-producing countries also affected the economic situation in an entirely different way. It caused surplus capacity in manufacturing industries in other countries, raised average costs of production and made manufactured commodities relatively expensive. Consequently, the total volume of production of such commodities and the demand

for raw materials was reduced. It is possible therefore that a more liberal tariff policy, although it would have made an expansion of manufacturing industries in the raw-material-producing countries more difficult, would have led to relatively higher prices of primary products. This seems all the more probable as in many countries the existence of high import duties for manufactured goods made it possible to lift wage and income levels in the protected industries in a way which was impossible in export industries and primary industries alike. It has been characteristic of the economic situation in many countries after the war that wages in the so-called sheltered or home-market industries have risen considerably more than wages in non-sheltered or " competition " industries. If the wage movement in agriculture is compared with the movement in the latter group of industries, the discrepancy is considerably smaller than the figures above indicate. In other words, the exceptional increase of wages in the building trade and in some industries working for the home market has contributed in no small degree to the shift in price and wage relations to the disadvantage of primary industries. Unfortunately, very scanty material is available to throw light on this question. In Denmark earnings per hour in the second quarter of 1927 were 20 per cent higher in 11 typical home market industries than in 11 typical " competition " trades. A special analysis of conditions in Sweden has given the following result :

Table XX. — Earnings per Hour for Male Workers in 1928.[1]

	$
Competitive industries	0.29
Sheltered home-market industries[2] . .	0.34
All industries	0.30

Another factor which helped to maintain higher prices of manufactured commodities and higher incomes of those employed in their production was that a restriction of supply in cases of excess capacity could be achieved more easily than in raw-material-producing industries, at any rate in so far as the latter worked for the world market and the former for local or national markets. Hence, an agreement between a small number of producers or a business policy pursued by individual producers without agreement directed to prevent unprofitable prices through restriction of output was relatively easy to maintain. In raw-

[1] *Arbetslöshetens omfattning, karaktär och orsaker* (The Magnitude, Character and Causes of Unemployment). Arbetslöshetsutredningens betänkande. I. 1. Stockholm, 1931.

[2] Does not include the building trade.

material industries, on the other hand, the numerous attempts to restrict supply broke down as already explained.

The facts described above seem to point clearly to the existence of a lack of balance and consequent instability in the years preceding the depression of such a character as to constitute at once a contributory cause and an impediment to rapid recovery. It has already been mentioned that many manufacturing industries had a considerable surplus capacity, especially among those designed for a large export to overseas countries, many of which were dependent on the production of primary commodities. Greater purchasing power in these countries, as well as in the hands of farmers elsewhere, would have made larger sales of manufactured goods to them possible and would thus have made for harmony between capacity of production and demand for such commodities.

E. Movement of the General Price Level as a Special Cause of Maladjustment.

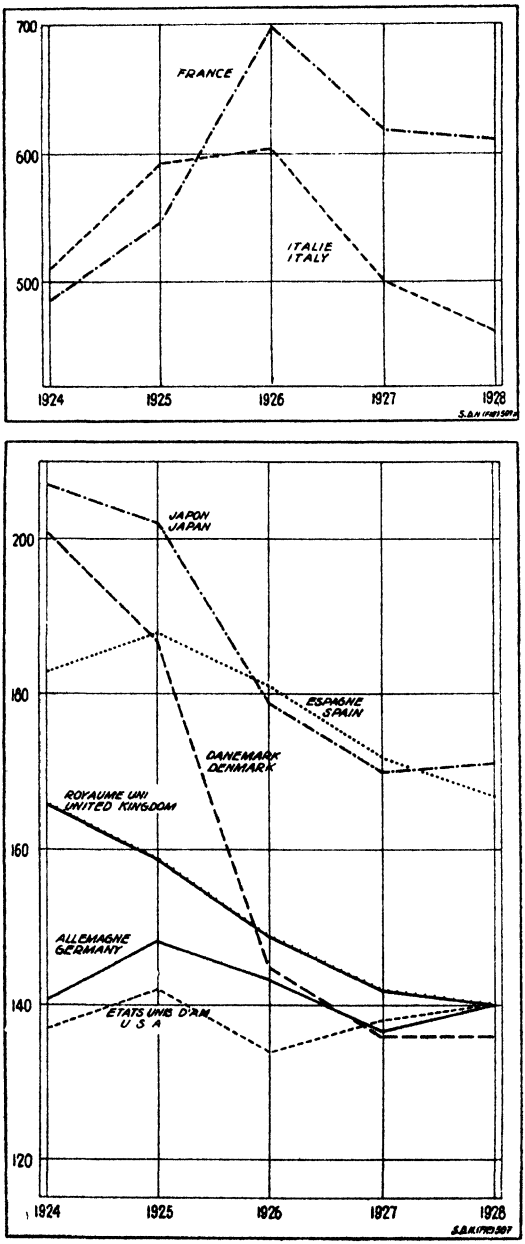
Post-war Inflation and Deflation.

In the years preceding the depression the movement of wholesale prices differed very markedly from country to country, as Chart 8 shows.

In some countries where currency inflation had taken or was taking place prices were rising, in others they were falling as a result of a more or less deliberate policy of deflation connected with a return to some form of gold standard. If all prices and wages had moved in the same direction and if old contracts had been adjusted accordingly, such changes in the purchasing power of money would have had little or no influence on economic relations. In fact, however, certain prices are much more flexible than others and the terms of old contracts are usually not altered. As a result, considerable movements of the general price levels have a pronounced influence on relative values, on the distribution of income, and on economic life in general. For instance, wages usually move less rapidly than wholesale prices ; costs of production therefore tend to be relatively high in countries with falling prices and relatively low in countries with rising prices. No doubt, the gold value of wages in certain countries — as, for instance, France and Belgium — in 1928 were relatively low and in other countries — such as Great Britain, Italy or Norway — where nominal wages had not been reduced to the same extent as prices, relatively high. This applied not only to home market

Chart 8.

WHOLESALE PRICE LEVEL IN CERTAIN COUNTRIES 1924-1928.
(Base 1913 = 100.)



Source: League of Nations *Monthly Bulletin of Statistics.*

industries, which were little affected by international competition, but also to export industries.

Retail prices also showed a tendency to lag behind wholesale prices — that is to say, were relatively low in countries with rising prices and high in those with falling prices. This tended to make real wages in the former countries higher and in the latter countries lower than they would otherwise have been. The pressure to raise the nominal wage level in countries with rising prices was thus weakened and the reduction of wages in countries with falling prices was rendered more difficult.

Certain wholesale prices are of course more flexible than others. In general, prices of commodities which are little affected by international competition (home market prices) adjust themselves much more slowly than those of import or export commodities or goods which compete directly with them. Yet there is little doubt that, in countries with a rising price level, the costs and prices of export goods tended to be relatively low in terms of gold, while in countries in which prices are falling they tended to be relatively high.

For many non-standardised commodities, international competition was not sufficiently complete to prevent a country from selling large quantities of products at somewhat higher prices than its competitors, but the volume of exports from such a country naturally tended to decline.

Thus price maladjustments tended to affect international trade and the whole economic situation in a number of different ways. Unemployment was aggravated in countries in which the price level was falling, while the reverse was true in countries with a rising price level. The barter terms of trade (the terms at which the various countries exchanged their goods) moved to the advantage of countries with high gold prices, but they bought this advantage at the cost of a reduced volume of exports.

Table XXI. — *Import and Export Price Indices of Deflationist and Inflationist Countries*, 1924.

(Gold indices based on trade values; 1913 = 100.)

Deflationist Countries		1924	Inflationist Countries		1924
Czechoslovakia. .	Import	145	France	Import	143
	Export	146		Export	126
Sweden	Import	117	Germany	Import	134
	Export	151		Export	128
Switzerland . . .	Import	144	Hungary	Import	146
	Export	157		Export	119
United Kingdom.	Import	141	Italy	Import	118
	Export	162		Export	109

Such inequalities in price movements and the fact that old contracts were not adjusted, naturally affected the profits realised by different industries. Profits have tended to be lower in export industries than in home market industries in such high gold-price countries as Great Britain, and the reverse has been true of countries with a depreciated currency. The export industries of such countries have, on the whole, had difficulties in realising normal profits in view of the relatively high costs. For this maladjustment of costs and prices the high taxation in post-war years has often been held responsible. Costs other than taxes (in so far as they constitute costs) might, however, have been adjusted downwards either as a result of technical improvement or price or wage reductions. The inflexibility and the height of taxation has been only one aspect of the incomplete adaptation of costs and prices to the new conditions resulting from a return to the gold standard at the old parity.

For a considerable period after the earlier depression of 1921, a process of readjustment of price relations took place in countries with more or less stable monetary conditions. In other countries, however, the currency inflation tended rather to increase maladjustments, especially up to the year 1926. There can be no doubt that, in 1928, international price relations were very far from what might be called normal or natural. This is illustrated by the following table.

Table XXII. — Wholesale Price Levels in 1928 *(Gold Indices).*

(Base 1913 or 1914 = 100.)

Australia	165	United Kingdom	140
British India	163	Germany	140
Norway	161	U. S. A.	140
Japan	159	Hungary	135
Peru	157	Italy (Milan)	134
China	155	Bulgaria	133
Denmark	153	Austria	130
Canada	151	Latvia	129
Dutch East Indies	149	France	126
Netherlands	149	Belgium	122
Sweden	148	Estonia	121
New Zealand	147	Egypt	120
Finland	145	South Africa	120
Switzerland	145	Poland	120
Spain	144	Chile	119
Czechoslovakia	143		

The above table shows that the movement of wholesale prices expressed in gold since 1913 has varied widely from country to country. When interpreting such figures, it must, however, be kept in mind that identical indices for all countries would not indicate that the price relationships were normal. In the first place, price indices are constructed on very different principles in different countries and are, for this reason, not directly comparable. In the second place, substantial differences in economic development may well bring about an appreciable and permanent change in the relation between national price levels. The discrepancies revealed in this table are, however, so great that it is impossible not to accept as a partial explanation a lack of adjustment after the violent price fluctuations of previous years.

This conclusion is confirmed by the fact that the trend of cost-of-living indices and wages in countries which gradually raised the value of their currency to its old gold parity was different from that in countries which stabilised at a relatively low rate of exchange. Thus the cost of living and wages rose rapidly in France — the cost-of-living index from 366 in July 1924 to 525 in July 1927 and 556 in July 1929 — while they declined or remained stable in countries which had previously gone through a period of deflation. In brief, a process of adaptation was going on, but it was by 1928 as yet far from complete.

The Movement of World Prices.

These international differences and maladjustments were a legacy from the days of paper currencies and inflation. The process of adaptation which has just been discussed implied an adjustment either upwards or downwards of the various individual prices to levels corresponding with the gold value at which the currency had been fixed.

At the same time, it may well be that the world gold-price system as such, comprising all the national price systems, had not become stable by 1928. Many economists are of the opinion that this was the case and that gold prices had been moving downwards during the five or six years preceding the depression and that this downward trend produced fresh maladjustments, hampered industry and trade and rendered the whole economic position in 1928 much less balanced than it would have been, if the general tendency of gold prices had been stable or in an upward direction.

As may be seen from Table XXIII below, wholesale prices tended to rise in some countries and to fall in others. Certain

Table XXIII. — Wholesale Price Levels in Various Countries, 1922-1929 (Gold Indices).

(Base 1913 = 100.)

Date	Australia	Austria	Canada	Czechoslovakia	Egypt	Estonia	Finland	Germany	Netherlands	New Zealand	Sweden	Switzerland	U. K.	U. S. A.
1922 Second half-year . . .	156		149	160	134	114	138		155	148	167	165	144	144
1923 First half-year.	169	128	152	148	133	116	145	137[1]	147	154	164	172	150	146
1928	165	130	151	143	123	121	145	140	149	147	148	145	140	140
1929 First half-year.	164	132	146	138	121	120	138	137	143	147	143	141	138	139

[1] Figure for 1924.

paper-money countries had a very low wholesale price level in terms of gold in 1922-23 — *e.g.*, in 1922 the German index in terms of gold was about 20 per cent below the 1913 level. In a sense, the currencies of these countries were under-valued and it was to be expected that their gold-price levels would rise as currency conditions became more stable. Other countries, such as Sweden and Switzerland, had by this time already passed through a period of deflation, but, as the decline in certain values had been sluggish, their gold-price level was still relatively high. In such cases it was equally natural to expect some decline in gold prices. For these reasons among others, prices moved differently from country to country and it is difficult to speak about the movement of the world price system as such.

In order to obtain some indication of the world movement, a study of the movement of prices in countries with more or less stable currency conditions during the whole of the period in question, or at least from 1924 onwards, is necessary. It should be remembered that most of the countries in which prices tended to rise are necessarily excluded ; the result is therefore somewhat biassed.

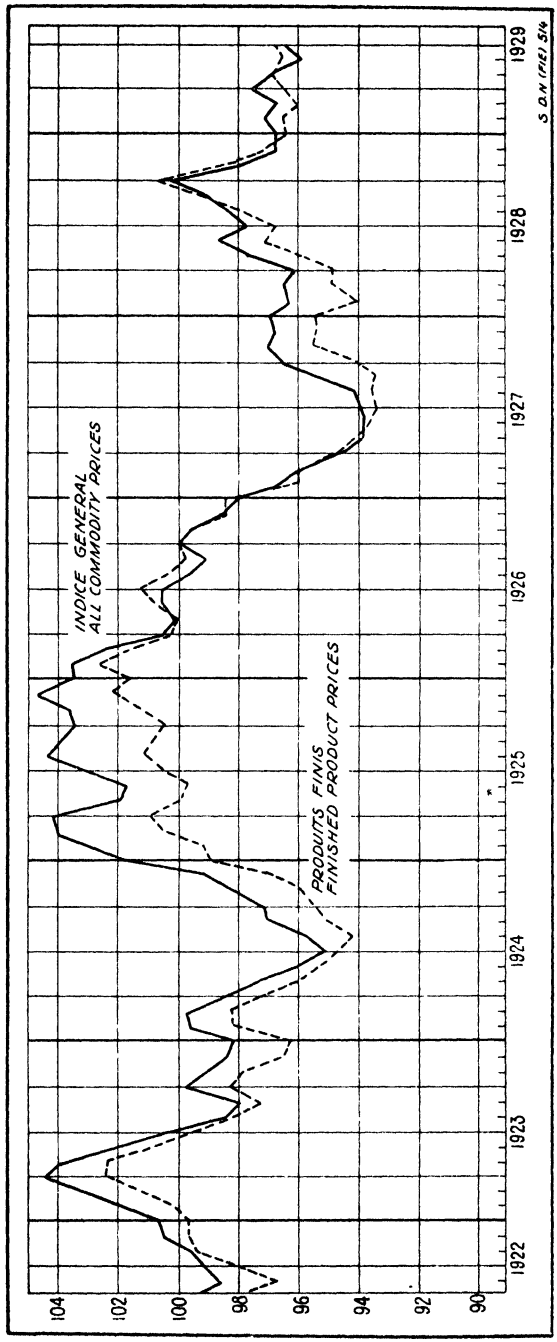
The table is inconclusive. Price reductions seem to be somewhat more numerous and considerable than price increases ; but, in view of the selection of countries, it cannot be regarded as proved that the trend of world prices was downward, although the inference that there was a very slight downward tendency may perhaps be justified[1]. In the United States, the price level declined by about 5 per cent between the first half of 1923 and the first half of 1929. A partial explanation of this movement was no doubt the bumper crop of 1928, which must have tended to depress the price level of 1928-29 one or two points. The boom in 1929 was, however, much more violent than in 1923 and a slightly higher price level in the latter period might have been expected on that account. As prices were actually lower in 1929 and failed to rise during the boom period 1928-29, it may be reasonable to infer that the trend of prices in the United States was slightly downward. (See Chart 9.)

If it be assumed that world prices were falling slightly, the question arises whether this movement tended to provoke new maladjustments in various price relations — whether the situation in 1928 would have been more stable and the ensuing depression less severe had the world price movement been

[1] In the memoranda submitted by the various National Economic Councils and Research Institutes, different opinions concerning this question were put forward ; it was considered in one or two of them that world prices had long shown a clear downward tendency, in others that this was true only from 1926 onwards.

Chart 9.

ALL COMMODITY AND FINISHED PRODUCT PRICE INDICES. (U.S. Bureau of Labor Statistics.)
(1926 = 100.)



different [1]. In trying to form an opinion on this question, it must of course be remembered that productivity increased in various industries in the period preceding 1928. In Chapter II—C above, reference has been made to the estimate that output per man in the manufacturing industries of the United States was increasing annually by 4 per cent. In view of such an increase in productivity, it is difficult to believe that a drop, something like 2 per cent annually, in the prices of finished manufactured goods in that country exercised any considerable depressing or disturbing effect on manufacturing. The price indices for foodstuffs remained constant, while raw-material prices declined. This helped to make profits in manufacturing industries high. On the whole the various price movements in the United States in a period of rising productivity exercised an influence on profits similar to that of slowly rising prices during a period of constant productivity.

For Europe, less information is available, but it has already been pointed out that output per head was probably growing rapidly. It is true that this was apparently due to the fact that, immediately after the war, economic conditions in Europe were disorganised and that rapid improvement during the period of re-organisation was therefore relatively easy ; but this does not alter the fact that output per head was growing rapidly and that a constant or slightly declining price level is thus not likely to have placed a dead hand on industry.

It is of course impossible to judge whether a different price movement would have entailed more or less serious maladjustments than actually occurred. The figures quoted above at any rate furnish no evidence in support of the contention that an upward tendency or absolute stability of the wholesale price level would have led to a more balanced situation in 1928. In some countries, no doubt, there would have been less need for difficult adjustments — *e.g.*, of wage rates — and the situation would therefore have been more stable. This would probably have been the case in Great Britain. In Sweden and Switzerland, on the other hand, where the price level was also falling, industry was in a not unfavourable position in 1928 owing to the rapid increase in productivity and the relative flexibility of their economic systems. There seems to be no reason for assuming that a higher price level would have made the position in these two countries more stable.

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[1] It should be observed that the question under discussion is therefore, *not* whether in the post-war period there is a long downward trend of prices — the years 1920-1922 and 1929-1931 would then also have to be considered — but simply whether the price movement before the present depression tended to set up maladjustments.

As productivity develops at different rates in different countries and as general conditions vary widely, it is natural to expect variations in the movement of wholesale prices from country to country. Hence, however the world price system may move, some adjustments of international price relations will be necessary. As already observed, it is impossible to ascertain what general price movement calls for the minimum of adjustment on the whole.

A Maladjustment in Monetary Organisation.

The movement of prices in different countries discussed above helped to produce a maladjustment in the monetary systems of the world and in the distribution of gold. The actual distribution in 1928 is shown in the following table :

Table XXIV. — Gold Stocks and Surplus Gold in 1928. [1]
$ (000,000's).

Country	Monetary Gold Stock	Surplus Gold [2]
Argentine	619	147
Australia	223	167
Brazil	149	13
France	1,259	139
Germany	666	300
Japan	541	6
Spain	494	159
United Kingdom	754	178
U. S. A.	4,141	1,420
Total of countries given	8,846	2,529
World [3]	10,472	2,676

In the last resort, international gold movements are due to the state of the balances of payments. A tendency towards a negative balance under certain circumstances causes an efflux

[1] At the end of the year.
[2] Surplus of total monetary gold stock over legal minimum gold requirements.
[3] Excluding the monetary gold stocks of a few countries for which complete note circulation figures are not available and whose legal minimum gold requirements therefore cannot be calculated. The approximate amount of these gold stocks at the end of 1928 was $215 millions.

of gold, while a tendency in the opposite direction may provoke gold imports. In fact, such movements are certain to occur unless the reserves of foreign exchange are used to keep the balance of payments in equilibrium. The position of the balance of payments in most cases depends mainly on the state of the trade balance, which in turn is influenced by the relative level of prices and wages in different countries, as well as by the obstacles, such as tariffs, which are put in the way of international commodity movements. The balance of payments is also affected by changes in international capital movements. The normal working of the gold standard implies that, in a given country, an influx of gold resulting from a certain state of the balance of trade and of its international capital transactions leads to an expansion of credit and a reduction of interest rates. In this way, purchasing power is increased and the balance of trade moves in a negative direction ; the decline in interest rates, further, stimulates the export and checks the import of capital. Thus the balance changes ; the inward movement of gold is arrested and possibly even reversed. In countries which are losing gold, the reverse process takes place.

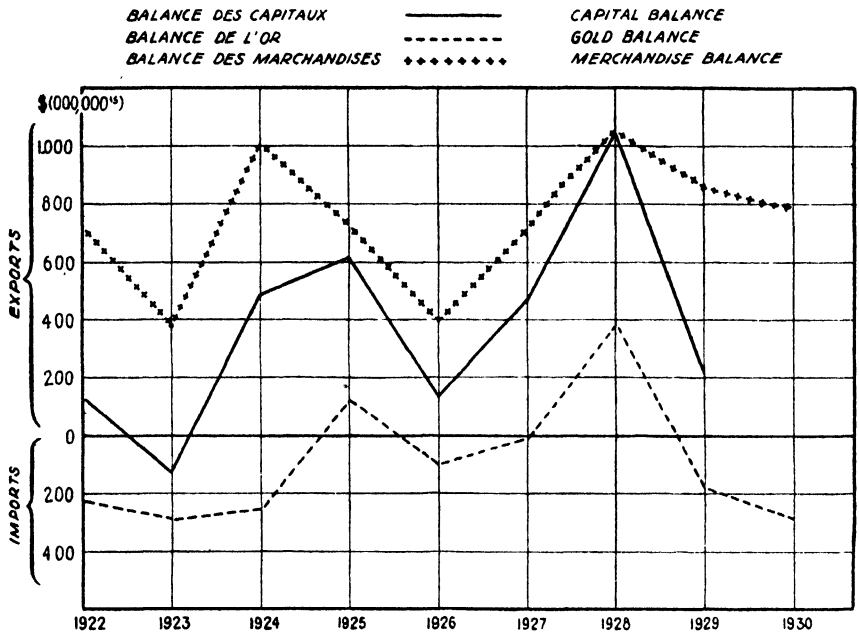
Since the war, this mechanism has failed to work efficiently. The United States credit did not expand in proportion to the gold imported. Such expansion as did take place as the result of the influx of gold was used at certain periods for purposes of speculation rather than to increase the demand for commodities ; hence it affected the import and export of goods only indirectly and to a limited extent. Further, the sale of foreign goods in the United States was made increasingly difficult by the introduction of new and higher tariff barriers ; the forces making for a reversal of the gold movement were thus checked and the influx of gold continued.

This influx did not of course continue without interruption : changes in international capital transactions were not completely offset by variations in the trade balance, but led to changes in the movements of gold. Increased net lending abroad tended to reduce the influx or even cause an outflow of gold — in 1928 almost $400 million — while a reduction of the lending operations caused gold to move to the United States. The closeness of the correlation between capital and gold movements is seen from Chart 10.

In the case of France, the increase in gold reserves in 1928 and 1929, due mainly to a change in international credit movements which have been described in greater detail above, had little time, before the depression started, to call forth a corresponding expansion of credit and thus affect the trade balance sufficiently to arrest the inflow of gold. Further, for

Chart 10.

MOVEMENT OF ANNUAL INTERNATIONAL BALANCES OF CAPITAL, MERCHANDISE AND GOLD OF THE UNITED STATES.



a number of reasons, the fall in interest rates did not lead to an increase in French capital exports such as might have been expected in pre-war times in similar circumstances. The fact that in 1928 France had enormous floating assets abroad but relatively little gold and the continued attraction of gold to France under these conditions would seem to reflect the lack of stability of the world economic situation in the years before the depression.

Thus, in 1928, the international economic situation — with regard to the relation of national price levels, tariffs, international lending and the distribution of gold — was undoubtedly suffering from a lack of balance [1].

[1] Other aspects of the monetary situation in the years before the depression are discussed in Chapter IV.

F. The Instability of the Economic Situation around 1928.

The economic situation of the world at a given moment is never balanced and stable. Hence the instability before the present depression cannot in itself be regarded as explaining why this depression has reached a degree of severity unattained in pre-war crises. The question arises therefore whether there was in 1928 any factor which made for an instability greater than that normal at other times or before the war. Only if that question can be answered in the affirmative is it possible to explain the severity of the present depression partly by reference to antecedent conditions.

It would appear that business cycles have been rather different in countries in an early stage of economic development and in those with a more mature economic system. Hence, it is evident that the economic structure has much to do with the character of the cyclical movement. It is therefore, *a priori*, probable that structural changes in the world economy will affect the way in which the business cycle develops. It is also probable, as has already been mentioned above, that a lack of stability or balance may lessen the power of resistance of the economic system to the disturbing tendencies of an economic depression. Of course, the world may still be prosperous in spite of surplus capacity and the existence of maladjustments, but this fact — which is borne out by experience — only proves that such circumstances are not sufficient to cause an economic depression. It does not prove that, when other factors contribute, the depression will not be aggravated by unbalanced circumstances.

Examining the question from the angle of demand, it seems probable that factors which make for a stable demand tend to mitigate depressions, while those which lead to heavy variations in demand tend to intensify them. From this point of view, the influence on the present depression of the factors briefly discussed in previous sections and also of certain others is clearly apparent.

First, tendencies towards a growing surplus capacity in the production of certain important foodstuffs and raw materials as well as in manufacturing industries made the situation unstable. If in a given industry there has long been a substantial excess capacity and the industry has adjusted its sales and its replacements policy accordingly, the unstabilising influence may not be very serious. When economic depression

occurs, the industry need not be more disturbed than it would have been had its capacity and output been more normal relative to demand. If, however, the productive apparatus has been expanding immediately before the depression more rapidly than demand, then the sudden arrival of bad trade conditions clearly reveals the existence of a considerable surplus capacity, not only in comparison with the reduced demand, but also with more normal demand. Thereupon, all demand for replacement and of course all new investments immediately fade away. Moreover, the prices at which the products of such an industry are offered for sale are likely to drop much more than would have been the case had the sales policy been adjusted to the existen ce of a surplus capacity for a long time previously. Such a decline of prices causes a great change in the distribution of income, a fact which may upset general demand conditions to a considerable extent. For instance, a heavy drop in the prices of primary products will reduce the incomes of certain new countries and lead to a cutting-down of their demand for manufactured goods from other countries. It is necessary to stress the fact that a failure to realise in time that productive capacity is outrunning future demand must make for instability of investment. A similar influence is exercised by continuous changes in tariff policy as well as by the failure of industry in general to adapt itself quickly to changing conditions. This instability of investment, or in other words the tendency towards a rapid decline in demand for investment goods during depressions, is one of the most potent factors in intensifying the slump. This point will be further discussed in Chapter VI C below.

High and increasing inventories are another cause of instability. When prices start falling nobody wants to carry stocks and therefore everybody is anxious to reduce their actual stocks as quickly as possible. Thus, the greater the stocks the more quickly will the demand for new commodities fall off. If large quantities of commodities are in the hands of loose monopolistic organisations which are apt to break down once the decline of prices has begun, then the position is all the more unstable. The volume of commodities put on the market will then be subject to a large increase at the very time when demand is restricted. As a matter of fact, the existence of such organisations may well increase instability even if they have not led to a piling-up of stocks but only to a previous restriction of output. The break-up of agreements to restrict production may under certain conditions lead to increased output at the very times when demand is falling and may thus affect prices in very much the same way as the existence of large stocks. On the other hand, strong organisations which control output in such a way

that abnormal stocks never accumulate may exercise a stabilising influence.

The lack of balance in the situation may lie, not only in surplus capacity or large stocks, but also in an unbalanced price system. The relative prices of different commodities or commodities at different stages of production and of the various factors of production may have a more or less abnormal relation to one another. If, for instance, cost elements are not adjusted to one another and to prices, production may be unprofitable ; a further decline of prices when the depression advances may in consequence be more serious than it would otherwise have been. Naturally, if through one circumstance or another, production does not pay even under good trade conditions, the financial position of the companies and firms concerned is weakened. Hence, the arrival of a depression is likely to endanger their future existence, to deteriorate their credit, and lead in some cases to reconstructions and bankruptcies. Although such financial processes need not necessarily affect productive activity, in very many cases they will in fact do so. A weak financial position of considerable groups of industries must therefore tend to intensify an economic depression. In some cases this is what actually happened. Before the depression, production was being conducted at a loss in, for instance, large sections of the British cotton and coal industries. Unadjusted costs may also mean exceptionally large profits, a fact which under certain conditions tends to stimulate new investment and create surplus capacity. The failure of adjustment of various cost elements is often approached from a special angle. Manufacturers feel that taxes and social charges are too high and are chiefly responsible for the fact that total costs cannot be reduced to a profitable level. There is, however, no reason why taxes and social charges should be regarded as the residual element to be satisfied only when wages or any other charges have been covered. Certain elements in the cost accounts are, it is true, always more or less fixed. Difficulties arise if there are not the required number of sufficiently flexible cost items, allowing an adjustment of total costs to a level in correspondence with selling price.

A special example of the failure of the various cost elements to adjust themselves to one another was to be found in Central Europe, where rates of interest were, for well-known reasons, on a very much higher level than before the war. The effect of this on the profitableness of new technical processes, necessitating an outlay of capital, and of long-time investment in general — for instance, in buildings — does not seem to have been always sufficiently realised. In some cases, investments were made in very much the same way at an interest level

of 10 per cent, as it might rightly have been if the rate had been only half this figure. When productive capacity can be fully utilised, such expensive capital investment may have no serious effects ; when, however, during an economic depression plant can no longer be worked full time, the necessity of paying high rates of interest is likely to bear heavily on the financial position of the industries concerned.

The divergence between the movements of wholesale and retail prices is often quoted as an outstanding example of an incomplete adjustment of prices and costs in the post-war economy. In most countries, retail prices fell much less than wholesale prices during the early post-war depression and in a great many they remained considerably above the level of the latter throughout the whole period under review.

Although for various reasons the real margin is considerably smaller than it appears when current indices are studied, comparable indices computed for certain countries show beyond doubt that retail prices had in 1928 risen more since pre-war times than wholesale prices. The existence of this wider margin has frequently given rise to the argument that by not passing price reductions — in foodstuffs for instance — on to the final consumer, the retailer has prevented that expansion of demand which would have helped to sustain the prices of the primary products. But the continued spread between wholesale and retail prices is largely due to the fact that the changes in the cost of retail distribution since pre-war days have not followed the same course as the changes in the cost of production of the commodities handled. Great technical advances were made in the production of all classes of goods, while corresponding advances were not made in methods of retailing. In many countries, the distribution system is still characterised by the existence of large numbers of small establishments operating with small turnover and high costs ; such establishments indeed have increased considerably in number since before the war. For this and other reasons, little reduction in the costs of retailing has been possible. At the same time, many of the changes that have been effected in the character of retail trade since before the war have been in the direction of increasing costs. Better service is demanded ; the practice of delivering goods and calling for orders has spread, and a greater proportion of goods is now sold on credit. Finally, consumers have been increasingly reluctant to buy in shops which do not display their goods attractively and with costly fittings.

It is true, however, that the costs of distribution have risen compared with the costs of production for another reason as well : wages in the transportation, building and retail trades

have risen considerably more than wages in manufacturing industries and in agriculture in most countries. This means that workers in the former occupations have been able to increase their consumption somewhat at the expense of consumers in general. It does not seem probable, however, that this change in the distribution of income has affected demand in such a way as to create, in itself, a serious discrepancy between demand and supply conditions. Hence, neither this circumstance nor the fact that retail costs have not been subject to the same reduction as production costs in terms of human effort seems to afford evidence of a lack of balance creative of instability in the years before the depression.

Another factor of a somewhat different character which undoubtedly also helped to make the position in 1928 unstable, by increasing the chances of considerable changes in economic relations, was the position of Russia. As later experience has shown, Russia was able to appear suddenly on the world's markets as a great exporter of certain commodities, such as timber, oil and wheat. The additional supplies thus placed on the world markets naturally tended to unsettle the balance that had been reached. On the other hand, these sales rendered Russia a market for machinery and other commodities.

In recent years, the obstacles to international migration have been much greater than before the war. Countries with a large excess of births over deaths have only to a limited degree been able to alleviate the pressure of a rapidly growing population through emigration. It is doubtful, however, to what extent this fact made the economic situation in post-war years less balanced than it would otherwise have been. The farming population and the production of foodstuffs in Europe might have been reduced through emigration to oversea countries, but, if the immigrants had been employed on the land, the tendency towards over-production of foodstuffs would have been strengthened. Whether increased emigration from Europe would have reduced unemployment in manufacturing industries there is uncertain.

It has been much discussed whether the post-war economic world possessed a smaller psychological stability in general than during pre-war times. It has been said that the experiences during and after the war of sudden and forcible changes could not but make people prepared for new violent disturbances. Thus, it is argued, a drop in prices would be less able to call forth demand now than before the war, because society had got used to considerable price changes. Unfortunately, it is scarcely possible either to prove or disprove that changes of this sort have taken place. The conspicuous lack of confidence

towards the end of 1930 and in 1931 may be the result of the depression, and not the consequence of a weakened psychological stability in existence before the depression started. The optimism in the spring of 1930, which put a brake on the slump in economic activity, tends rather to substantiate the view that the business psychology had not become more hesitant or unstable. The gravity of political events and the instability of financial conditions could not, as the depression proceeded, but create a widespread feeling of pessimism.

The lack of balance and the structural changes which have been described above do not of course in themselves explain the depression which followed. As already mentioned, the world is never balanced or stable, and yet periods of prosperity succeed periods of depression. It seems certain, however, that, if such factors as have just been described are at work, depressions caused by other factors will be intensified. Consequently, the following account of the present depression cannot be given except against the background of at least a very brief description of the economic situation of the world in the immediately preceding years.

Chapter III.

BUSINESS-CYCLE TENDENCIES IN THE LAST DECADE.

In the previous two chapters, some observations have been made on the influence of changes in the structure of the economic organism. It is usual to make a distinction between factors causing such structural changes and cyclical factors which lie behind the wave-like movements of trade — usually described as the business cycle. This is a somewhat vague distinction : among other reasons, because economic science has not yet been able to ascertain the causes of this cyclical movement. Most economists agree, however, that business-cycle tendencies are connected with variations on the capital market — *i.e.*, in the relation between savings and investment and in the production of producers' and consumers' goods. There seems to be a certain uniformity in the variations of these elements which make it fruitful to group them under the heading of factors making for cyclical trade fluctuations, while treating such circumstances as new tariffs, inventions, and new tastes as belonging to a different group of factors which have a more or less constant influence on the structure of the economic organism. Evidently, this distinction is auxiliary to the handling of the enormous mass of material which must be considered in any account of economic developments. The economic situation is never affected by changes in factors of only one kind. On the contrary, all trade fluctuations are under the influence of both types of variations.

Changes in the volume of output in manufacturing industries and in the volume of trade are the chief characteristics of business fluctuations. Such changes, which are constantly recurring, vary greatly in degree. The depression in the year 1903 in the United States, which was hardly noticeable in Europe, can be quoted as an example of a minor trade fluctuation. The booms in 1900 and

1907 and the following depressions were a little more pronounced, but less pronounced than the depressions in the 'seventies and 'nineties of the last century. It is probable that the severity of these earlier depressions was due to the fact that cyclical factors made for a slump under conditions which structural factors had made extremely unstable. In other words, in such cases it is correct to diagnose a combination of structural and cyclical depressions.

Many economic authorities believe that the pre-war cyclical fluctuations in trade occurred fairly regularly at intervals of about forty months and that there was a tendency towards a business cycle of this kind in all countries which had reached a certain stage of industrial development.

The course of events during the last fifteen years has been so largely determined by the destruction and dislocation caused by the war that the underlying forces of a cyclical character have been in a large measure concealed. Indeed, their very existence has been denied. A brief study of the economic development of certain individual States may, however, help to throw some of the underlying forces into relief.

The feverish post-war activity was followed by a severe depression in 1920 and the following years. It was much more pronounced in certain countries than in others. In some, a fall in the price level aggravated conditions, while inflationist countries suffered less owing to the stimulus given by rising prices. General recovery came surprisingly quickly. In 1923, commodity prices nearly everywhere stopped falling and business conditions improved. In England, the Netherlands, Sweden, Italy, Czechoslovakia, Brazil and the Argentine, definite recovery seems to have begun some time in the second half of that year, while in other countries it had already been in progress for some time (Denmark, Austria, Australia). In the United States and Canada, where the improvements had started in 1922, the summit of a minor cyclical wave was passed in the middle of 1923 ; and these countries entered upon a brief phase of declining activity.

The 1924 recession in North America was not felt in European countries. Thus in England, Sweden, Norway, Switzerland, France, Italy, Spain, Germany, Czechoslovakia, Portugal and also in Brazil, the Argentine and Australia production was increasing.

Some European countries were feeling the effects of the initiation of a policy of deflation, and Poland, Estonia, Hungary, Roumania and Finland were faced by special difficulties ; but these difficulties were not directly related to the temporary decline in the economic activity of North America.

The year 1925 was marked rather by a tendency towards

decline. In many countries, economic activity was adversely influenced by the effects of deflation or stabilisation. The United Kingdom, Finland, Poland, Austria, Hungary, Norway, Belgium, Switzerland, Portugal, Brazil and Australia experienced recessions varying in intensity. Conditions in the United States and France were active, but a temporary decline could be observed in the middle of the year. Czechoslovakia was nearing the end of a cyclical expansion. In Germany, the upward movement stopped ; the second half of 1925 saw a rapid decline. On the other hand, Canada, Spain, the Argentine, Japan and India were still in the upward phase of the cycle.

In the last quarter of 1925, production in England registered an advance which was more than seasonal and continued until 1926. But the coal dispute and later the general strike in 1926 paralysed all branches of production. These events, however, tended to benefit for the moment certain countries such as Germany, Belgium, Sweden and others whose products directly competed with those of the United Kingdom. In other countries special depressing factors were at work — *e.g.*, production in France, Spain and Italy began to recede, largely on account of monetary difficulties.

During the year 1927, the movement was much more uniform and general — internationally — than at any other time since the post-war depression. Currencies were stabilised and the gold standard or gold exchange standards adopted by most of the countries which had not done so before. There was a clearly marked tendency towards expansion of production and trade. Only countries where monetary factors were adverse (*e.g.*, France, Italy, Denmark, Norway, Roumania, Brazil, Japan) or where civil disturbances occurred (*e.g.*, China) failed to share or to share fully in the increasing prosperity. In France and Italy, the deflation crises were overcome and the third or fourth quarter of the year brought a certain revival. Some countries — *e.g.*, Australia — enjoyed a high degree of prosperity. It was only in the United States and in Canada that the second half of the year showed a short and relatively mild recession ; it came about three and a-half years after the previous recession in 1923-24, thus making a cycle of almost forty months. The temporary standstill and re-organisation of a leading firm in the automobile industry exercised a depressing effect just at that time.

The general improvement in the world economic conditions is reflected in the behaviour of capital markets. The international movements of gold changed their direction and went from west to east ; easier money-market conditions were experienced on the important markets. Security prices rose substantially in most countries. The rapid decline on the German stock exchange

was exceptional and was caused by action on the part of German authorities directed to this end; some other markets, however, followed the German lead.

The tendencies to expansion observed in 1927 continued in 1928 and, on the whole, were intensified. In some countries, industrial activity as well as transactions and quotations on the stock exchanges attained boom proportions. In others, however — as, for instance, in Germany and certain cereal-producing countries — there was no further rise in the volume of manufactured products, but on the whole the level reached was maintained. Australia was an exception. The bad crop in the winter of 1927-28 exercised a depressing influence. In Finland, a slump in prices of timber and a financial crisis in the building industry caused a certain recession. Industrial production in England declined in the first half of the year; but in all probability this was only a temporary reaction from the exceptional activity in 1927 which followed the coal dispute.

In the absence of important monetary or other causes making for a development along independent lines in individual countries, the tendencies towards a similar movement of business conditions grew in strength.

The beginning of the year 1929 was very favourable in most countries. It is true that in Poland, Hungary, the Argentine, Canada, Czechoslovakia, Switzerland, production either remained stationary or even showed a somewhat declining tendency. Elsewhere, however — in the United States, England, France, Germany, Sweden, Japan and other countries — production continued to increase in volume; in some branches of industry and in certain countries, hitherto undreamt-of levels were attained.

As the year advanced, however, production tended to fall off and, when the New York Stock Exchange collapse occurred, one country after another was drawn into the vortex. Production and trade contracted almost all over the world.

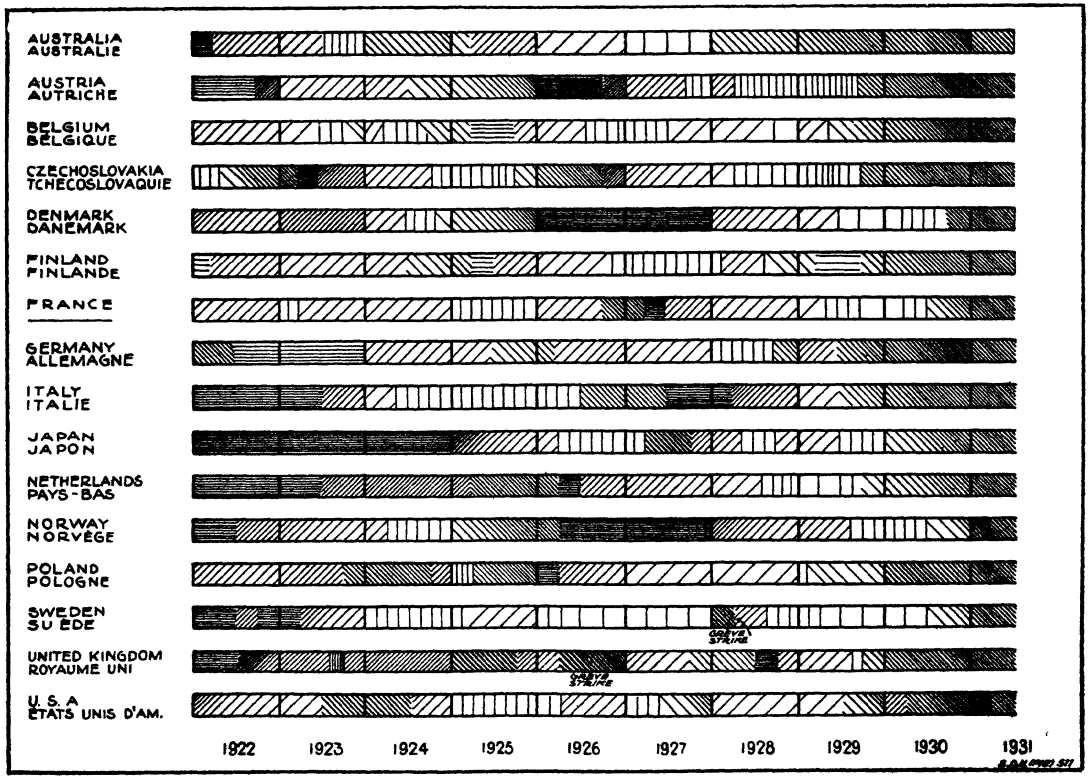
Chart 11 may help to render clear the changes in business conditions which took place.

The *direction* of the lines shows the tendency of the changes, and their *density* the intensity of the business activity.

Thus, the rising or falling lines indicate that business activity was moving upwards or downwards. The horizontal and the vertical lines show that the level of activity was fairly stable on a low and a high level, respectively. In other words, horizontal lines indicate that the country was suffering from a depression which on the whole grew neither better nor worse, while the vertical lines signify prosperity at a constant level. The darker the shading the deeper the depression ; the lighter the shading the better the business conditions.

Chart 11.

SYNOPTIC TABLE OF BUSINESS CYCLES IN VARIOUS COUNTRIES.



This graph requires to be interpreted with care. It is intended to give only a general picture and certainly not an exact description of conditions in various countries. It does not make possible a comparison of the intensity of the depression or the boom as between the various countries at a given date.

The general impression conveyed is that there was very little uniformity in the movement of business conditions in different countries during the last decade, especially before 1927. Only in a few countries — such, for instance, as the United States, Great Britain, Canada and Czechoslovakia — can a cyclical movement with a period of three to four years be observed; and even in these cases the movements did not synchronise.

This impression is confirmed by a study of the indices of the volume of production for the years 1924 to 1928, which are reproduced on Chart 12. The minor trade fluctuations in the post-war period seem to have proceeded in an entirely different way in different countries. It was only in 1927 that they began to coincide more nearly with one another (although in some cases in a very hesitating manner), until the present depression broke out simultaneously in a large number of countries in the autumn of 1929.

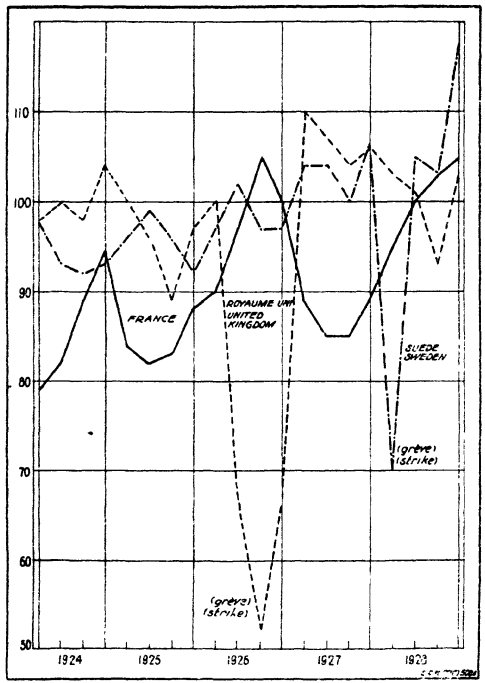
Among the many statistical series of a financial character which might be considered, only one will be included in the present chapter, namely the movement of bond yields. Here again, as shown by Chart 13, the movements were far from uniform.

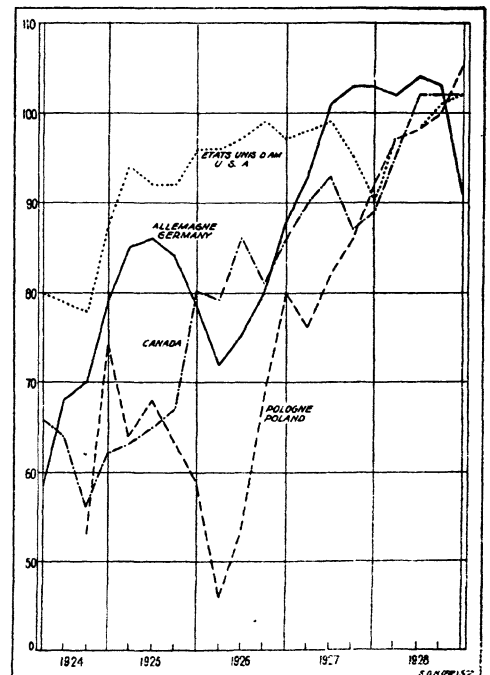
Reasons for this lack of uniformity are not difficult to find. Under certain conditions, national factors tend to dominate. They are obviously likely to do so during periods of domestic inflation or deflation. It has already been mentioned that the crisis in 1921-22 was much more severe in countries which pursued a policy of deflation than in those where prices, after a temporary setback, resumed their upward movement. Finland almost escaped this crisis owing to the fact that it maintained a stable price level from 1920-1922. Another example of factors making for different business trends in different countries is that an increase in the import of capital exercises a stimulating influence of very much the same sort as a mild inflation, while a considerable increase in the export of capital may tend to have a reverse effect.

Structural changes, such as the loss of foreign markets, must necessarily tend to depress conditions in the country in which they occur. Thus, economic conditions in Austria were seriously affected throughout the last decade by the erection of new tariffs in surrounding countries, which shut off a large part of Austrian industry from their pre-war markets.

Chart 12.

VOLUME OF INDUSTRIAL PRODUCTION. (1928 = 100.)



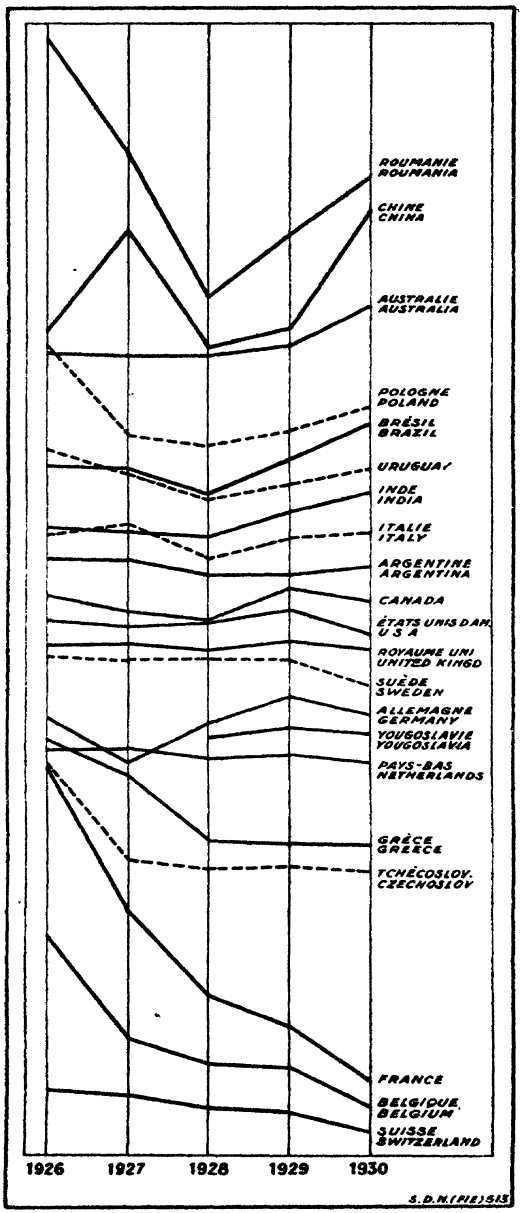


France : Statistique générale.
Sweden : *Svensk Finanstidning.*
U. K. : London & Cambridge Economic Service.

Canada : *Monthly Review of Business Statistics.*
Germany : Institut für Konjunkturforschung.
Poland : Institut de Recherches.
U. S. A. : Federal Reserve Board.

Chart 13.

YIELD OF BONDS IN VARIOUS COUNTRIES.



Source : *Statistical Year-Book of the League of Nations.*

In countries which are much dependent upon one or a small number of agricultural commodities, crop variations have often changed the whole aspect of the business situation.

National factors strong enough to dominate the economic situation in an individual country may of course also move in cycles. The changes on the capital market and in the field of investment which make for a business boom may at certain times be very strong and override the depressing effects of unfavourable circumstances abroad ; at other times, the cyclical downward swing may prove stronger than the stimulus given by favourable foreign factors. The influence of conditions abroad on any given country is usually simple ; good as well as bad business conditions tend to spread. In other words, the tendencies are contagious. The reasons for this are obvious. It goes without saying that the contagion is especially pronounced between certain groups of countries that have more intimate relations with one another than with others.

It would carry us too far to enter upon a further analysis of the various actions and reactions in international economic relations from the point of view of trade fluctuations. It is obvious that uniformity of movement in all countries can only be expected when the domestic factors in many important countries work in the same direction at the same time. Even then the uniformity will be chiefly one of direction and will not apply to the character of the business situation nor to the time when the various tendencies began. The structure of economic life in each country largely governs the character both of booms and of depressions. Experience of this and earlier depressions shows that countries such as Great Britain and Italy that are more dependent on conditions elsewhere suffer more from a worldwide depression than do the more self-contained territories like France. This of course is only true if the national factors in countries of the latter type do not make for a very severe slump, as seems to have been the case on this occasion in the United States. It is also self-evident that a depression has very different effects in agricultural countries from those in countries chiefly dependent on manufacturing industries. Even in the former, however, there have been important differences between those producing chiefly cereals and those which concentrate on animal foodstuffs.

A study of trade fluctuations in pre-war times corroborates these conclusions reached from an analysis of the movements in the last decade. There was very little uniformity in the movement of trade conditions so far as the minor fluctuations are concerned before the war. The national factors were evidently more important than the foreign influences, which no doubt partly offset one another. There may have been a tendency

towards a forty-months cycle before the war, but, even if this is true, that tendency has frequently been counteracted in one country or another by other factors. Even those countries which display the best evidence of such a cycle have experienced periods when the upward swing almost failed to make itself apparent owing to the influence of structural factors of a depressing character. This was the case, for instance, in the middle of the 'nineties in the United States.

In certain agricultural countries — as, for instance, Russia — even the major trade fluctuations which culminated in the crises of 1900 and 1907 had very little effect. This fact does not imply that Russia was unaffected by conditions abroad, but only that crop variations and changes in the price of wheat, which were far from following the movement of business cycles abroad, exercised a predominant influence. The case of Russia was, however, somewhat extreme.

On the whole, the major trade fluctuations before the war asserted themselves almost everywhere, and the more pronounced the boom or the depression, the more similar the movement in different countries. However, the similarity may easily be exaggerated. So severe a crisis as that which occurred in Europe in the year 1900 had very little influence in the United States and is hardly noticeable on the production curves in that country.

It is useful to bear in mind one further fact concerning the major trade fluctuations before the war in any study of post-war tendencies ; the period between the highest and lowest points of the waves was far from constant. According to a well-known study of the business cycle in Great Britain [1] there were periods of 3, 5, 7 and 8 years, and two periods of 6 and 10 years, between the peaks from 1857 to 1912. Between the low points there was one period of 7 and one of 11 years, two periods of 9 and three of 5 years. This certainly lends no support to the idea of regularity in the major trade fluctuations.

A study of both pre-war and post-war conditions thus leads to the conclusion that trade fluctuations do not proceed in a regular fashion ; nor are they similar in all or in the majority of countries except on very rare occasions. Such rare similarity is more surprising and more in need of explanation than the differences at other times. Certainly in the last decade — a period of unusually strong nationalism — *e.g.*, as regards finance, tariffs, etc. — very little uniformity can be observed as far as the minor trade fluctuations are concerned. But in the post-war period, though the minor fluctuations in economic activity

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[1] See Mitchell : " *Business Cycles. The Problem and its Setting* ". New York, 1927. p. 372.

varied widely from country to country, the two major depressions of the decade — that of 1920 and that of 1929 — made themselves felt throughout the whole compass of the globe, and it is with this type of phenomena that the present study is mainly concerned.

Chapter IV.

THE PHASES OF THE PRESENT BUSINESS CYCLE.

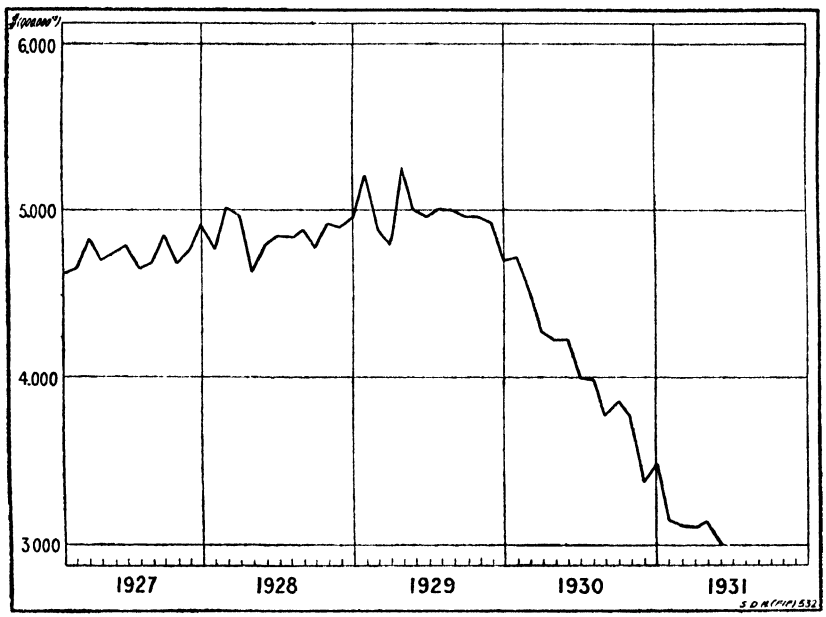
A. Bird's-Eye View of the Cycle.

The analysis in the last chapter makes it clear why it is difficult to state which year marked the beginning of the present business cycle which culminated in 1929 and has shown a marked downward tendency during the last two years. In most countries, business conditions were improving from 1926-1929 with only a slight interruption in certain of them during the latter half of 1927. But agriculture is of course subject to special meteorological influences which may not coincide with the business cycle. As described in Chapter II, the depression tendencies had begun to make themselves felt in agriculture as early as 1928. For some time the increasing fall in prices was checked by keeping produce off the market and by accumulating stocks, but farm incomes were smaller in the 1928-29 period than in the preceding year. After the turn of the business cycle in 1929, the decline in the purchasing power of other industries caused a reduction in the demand for certain foodstuffs and the existence of large stocks during such a period intensified the drop in the prices of many foods. Hence, the situation of agriculture became more serious than it would otherwise have been, and the last two years have been characterised at least as much by an agricultural depression as by a business cycle recession in manufacturing industries and trade (See Chart 14.)

It is of course impossible to give a precise date at which the business cycle turned downwards, but Chart 14 suggests that, viewed from a world standpoint, a change was taking place in the early autumn of 1929. Since that time the value of world trade and the wholesale price-index of commodities traded in internationally have been subject to a continuous decline. Other data of importance for judging the movement of business

Chart 14.

THE VALUE OF THE INTERNATIONAL TRADE OF FORTY-FIVE COUNTRIES, 1927-1931.[1]



conditions show a less regular development. The indices of the volume of production in manufacturing industries in certain countries given in Charts 15 and 16 indicate that the rate at which the depression has been proceeding has varied greatly from time to time.

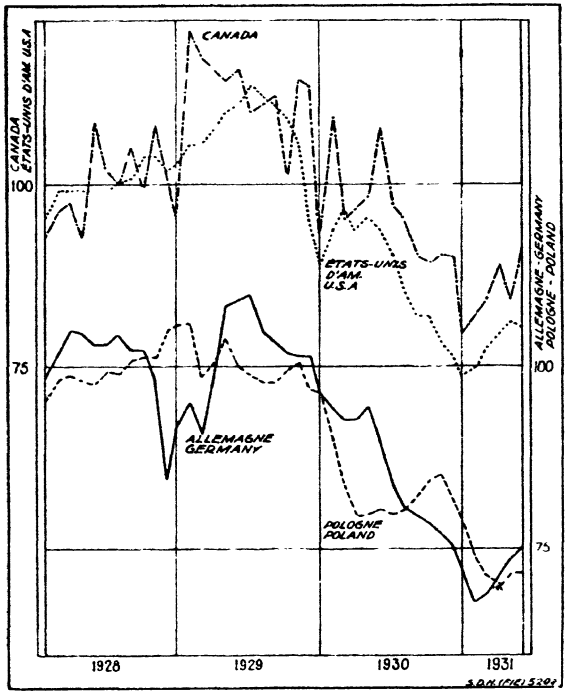
If the two years since the summer of 1929 be divided into four characteristic periods, the first would embrace the last half of 1929. Production curves in the majority of countries were already falling during the third quarter of the year, and, after the stock-market crash in New York, which brought about a dramatic fall in stock-market quotations in other countries also, the depression gathered strength and proceeded rapidly. (See Chart 17.)

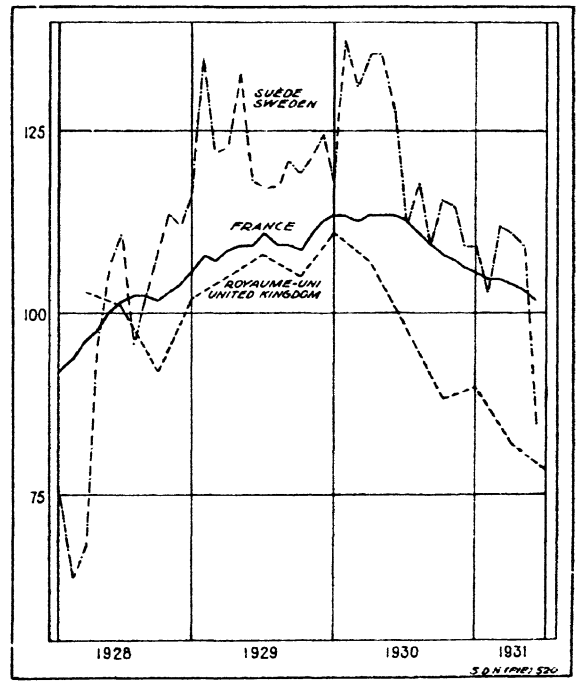
At the turn of the year, there was a tendency in financial and business circles, particularly in the United States, to take an optimistic view of the situation and to assume that the depres-

[1] Total imports and exports in millions of dollars ; adjusted for seasonal variations.

Charts 15 and 16.

INDICES OF THE VOLUME OF INDUSTRIAL PRODUCTION, 1928-1931.
(1928 = 100.)



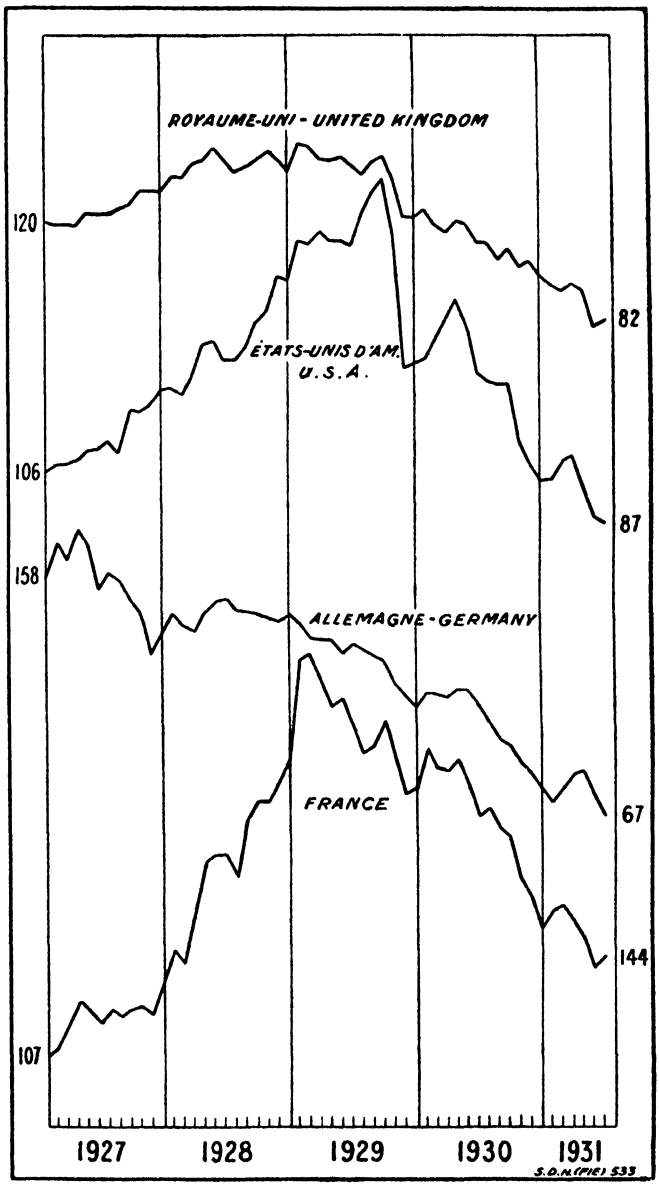


Sources : Canada : *Monthly Review of Business Statistics.*
Germany : Institut für Konjunkturforschung.
Poland : Institut de Recherches.
United States of America : Federal Reserve Board.

France : *Statistique Générale de la France.*
Sweden : *Svensk Finanstidning.*
United Kingdom : London and Cambridge Economic Service.

Chart 17.

PRICES OF INDUSTRIAL SHARES, 1927-1931.
(1926 = 100.)



Source : *League of Nations Monthly Bulletin of Statistics.*

sion would be of short duration. The export of capital from lending countries increased and a considerable rise took place on the stock markets. In the spring, the rate at which production was declining slowed down in most countries ; there was even an improvement in the United States which went beyond the normal seasonal improvement. During this second period, which lasted till the summer of 1930, manufacturing countries other than the United States had felt relatively little of the depression compared with those producing crude foodstuffs and raw materials. Gradually, however, one manufacturing country after another was drawn into the rapid downward movement in the last half of the year. Curves of production, trade, stock-exchange quotations and commodity prices turned decisively downwards, and international capital movements on long term practically ceased. Certain countries such as France and the Scandinavian group, in which business conditions had been good up to the summer, now began to feel the influence of reduced demand abroad, while the depression grew more and more severe elsewhere. (See Chart 18.)

In the beginning of 1931, the course of events of the preceding year was to a large extent repeated. The rate of the depression slowed down considerably. The volume of output in manufacturing industries increased seasonally and in some countries — such as the United States — even a little more. Pessimism became less acute and speculative shares rose rapidly on the stock markets. In many quarters, hopes were nourished that this improvement was to be the beginning of a real recovery. These hopes were, however, not justified. In May, the situation somewhat suddenly changed for the worse. Political and financial events caused discouragement and a withdrawal of foreign funds from borrowing countries took place on a considerable scale. The discrepancy between interest rates in these and in lending countries increased. (See Chart 19.)

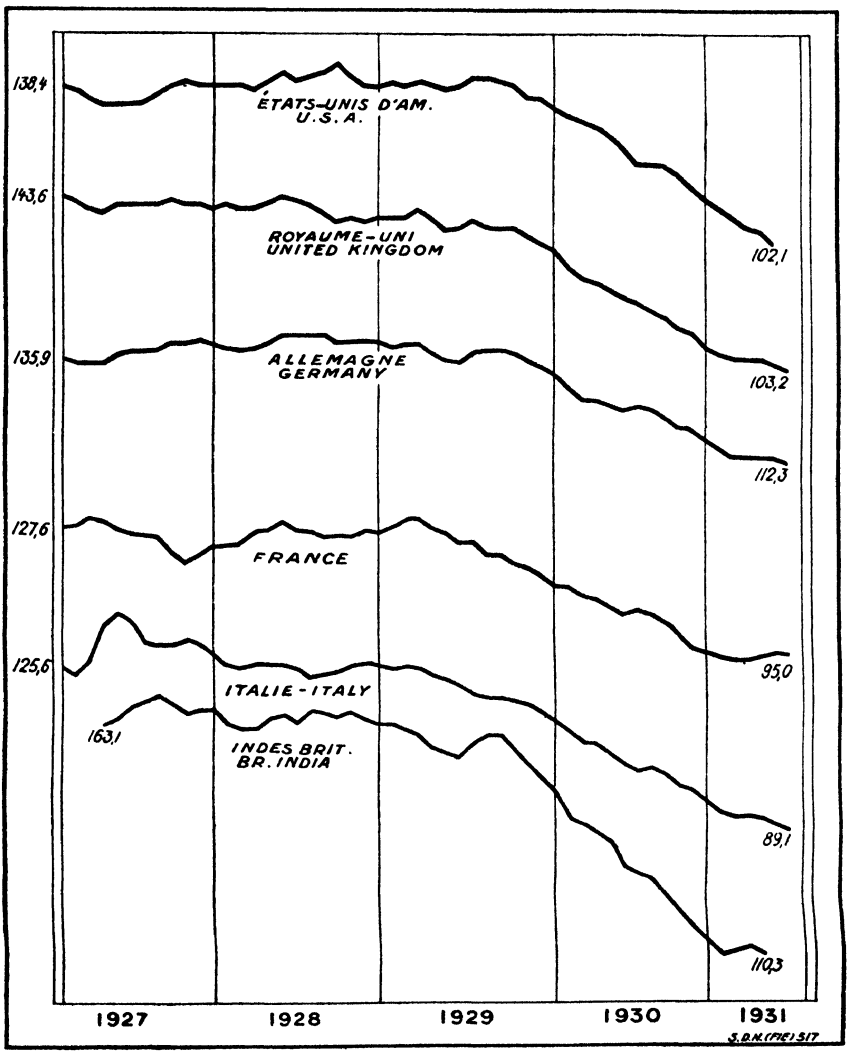
A feeling of pessimism was again dominant and the depression deepened in practically all industries and all countries in course of the summer. During these months the depression seems to have proceeded a little faster in Europe than elsewhere and conditions in many European States thus became almost as unfavourable as in most other countries.

B. The Boom.

It has already been stressed in Chapter III that business conditions during the year preceding the turn in 1929 varied widely from country to country.

Chart 18.

WHOLESALE PRICES.

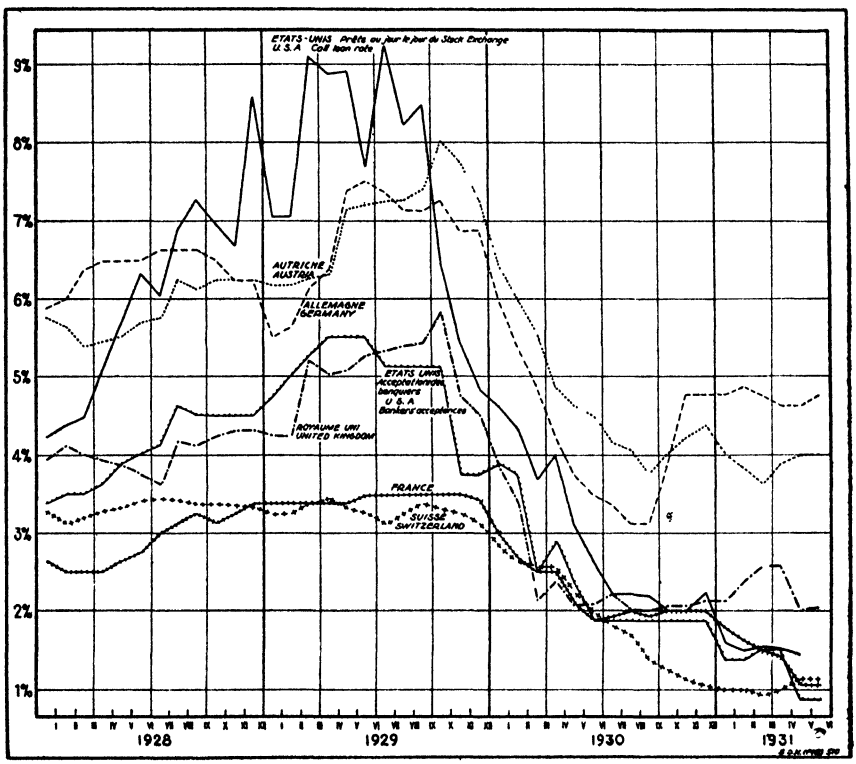


Source : *League of Nations Monthly Bulletin of Statistics.*

Chart 19.

Market Discount Rates in Six Countries and Call Money in New York.

(Minimum Rates [1] and Call Money (Renewals Average Rate.)



Source : *League of Nations Monthly Bulletin of Statistics.*

[1] For Switzerland in 1928 the average rate is shown. It is only slightly higher than the minimum.

The boom was more pronounced during 1928 and 1929 in the United States than elsewhere. The output of producers' equipment rose enormously, and much more than that of consumers' goods. Among the latter it was chiefly those of a durable nature and belonging to the so-called new industries such as motor-cars, radios, refrigerators, etc., the production of which increased the most. This fact probably had some connection with the large profits realised on stock-exchange speculation which were partly used for the purchase of more expensive consumption goods. In other countries, there was also an increase in production during these years, but boom conditions were felt to a less extent. Unemployment was on the whole declining, though it remained on a relatively high level. In countries where agriculture played a large rôle, the reduction in the purchasing power of farmers from the beginning of 1929 counteracted the boom tendencies which might otherwise have developed. For Great Britain, the unsatisfactory conditions on certain overseas markets had a similar influence. In Italy, the progress realised from 1927 to 1929 was relatively great, but this was probably due more to the fact that the antecedent deflation of the price level had adversely affected conditions in the first year than to a real boom in the following two years.

The position of Germany was exceptional. The rise on the stock market had been broken as early as 1927 by a credit restriction deliberately imposed by the Central Bank. From the end of that year the domestic market weakened, although production and trade were maintained on a relatively high level. Towards the end of 1928, the easing of credit conditions, and the influence on German exports of good conditions abroad brought some improvement, and after the end of the unusually severe winter a considerable upward movement took place. The increase in production during the whole period 1926 was much greater in industries manufacturing producers' goods than in those manufacturing consumers' goods. This fact was due partly to the large foreign demand for machines and other manufacturers' equipment and partly to the rationalisation movement and the large volume of construction within Germany.

It is one of the characteristics of this upward swing of the business cycle 1926-1929 that important industries producing consumers' goods — for instance, the textile and boot-and-shoe industries — were never able to utilise their capacity to the full. In the United States, their production increased somewhat, as may be seen from the following table, but in certain other countries there was no increase at all. In Germany there was, indeed, a substantial reduction of output in the textile and boot-and-shoe industries after 1927.

Table I. — Index of Industrial Production in the United States. [1]

(Monthly averages, seasonally adjusted, December 1927 = 100.)

Monthly average	All manufactures	Iron and Steel	Automobiles	Textiles	Leather and Shoes	Food products
1927, Dec.	100	100	100	100	100	100
1928, June	111	121	153	103	104	97
» Dec.	117	131	197	106	97	109
1929, June	129	165	219	116	108	100

Thus, the boom was rather a typical investment boom than a consumption boom. It is true that the output of the motor industry, the radio industry and some other new industries grew very rapidly, but the increased purchases of such commodities required investments of savings no less than the purchase of machinery. In other words, durable commodities, whether intended for production or for consumption, were increased in quantity to much greater extent than such less-durable consumers' goods as textiles and foods. It follows that a larger part of total income was saved and used for investment during the boom period than during the preceding years.

In almost all countries, the period under review was characterised by an exceptional volume of construction and a very large investment in new roads. Many economic authorities hold the view that this fact was one of the fundamental conditions of the intense activity in the three or four years before this depression. There was an urgent need of new roads, houses, motor-cars, etc., which, to be satisfied, required an enormous investment of new capital. During such periods of large investment, boom conditions seem to develop more easily than during periods when investment constitutes a smaller proportion of total output. [2]

In the discussion concerning price movements in Chapter II E it has already been mentioned that prices of manufactured goods failed to rise in the years 1928 to 1929. In many countries, such as the United States and Germany, they were even subject

[1] Source : *Federal Reserve Bulletin.*
[2] See Chapter VI E.

to some decline. For instance, the index of finished products dropped from 101 in September 1928 to 98 in July 1929 in the United States. Raw material prices (compare Chapter II B) also fell somewhat. It should be emphasised, however, that throughout this period the prices of both finished products and raw materials, as well as prices of farm products, were on a higher level than in the summer of 1927. The highest point for prices of farm products and raw materials was reached in May 1928, and for prices of finished products, in September 1928. The fact that prices turned downwards long before the culmination of the boom is clearly shown by various indices of sensitive prices.

Table II. — Quantum and Value of World Trade 1925 - 1929. [1]

	1925	1926	1927	1928	1929
Prices (gold) . . .	100	93.5	91	90.5	88
Quantum	100	103	111	115	120
Value	100	96	101	104	105.5

The general increase in production was reflected in an expansion of foreign trade. The table above shows that the increase in the quantum of trade was much larger than in the value. World-market prices of commodities traded in internationally fell rapidly from 1925 to 1927 and a little in the two following years. Here, again, the tendencies were of course different in different countries. Chart 20 illustrates the changes which took place from 1927 to 1929 in countries for which indices of the volume of trade are available. They require no special comment.

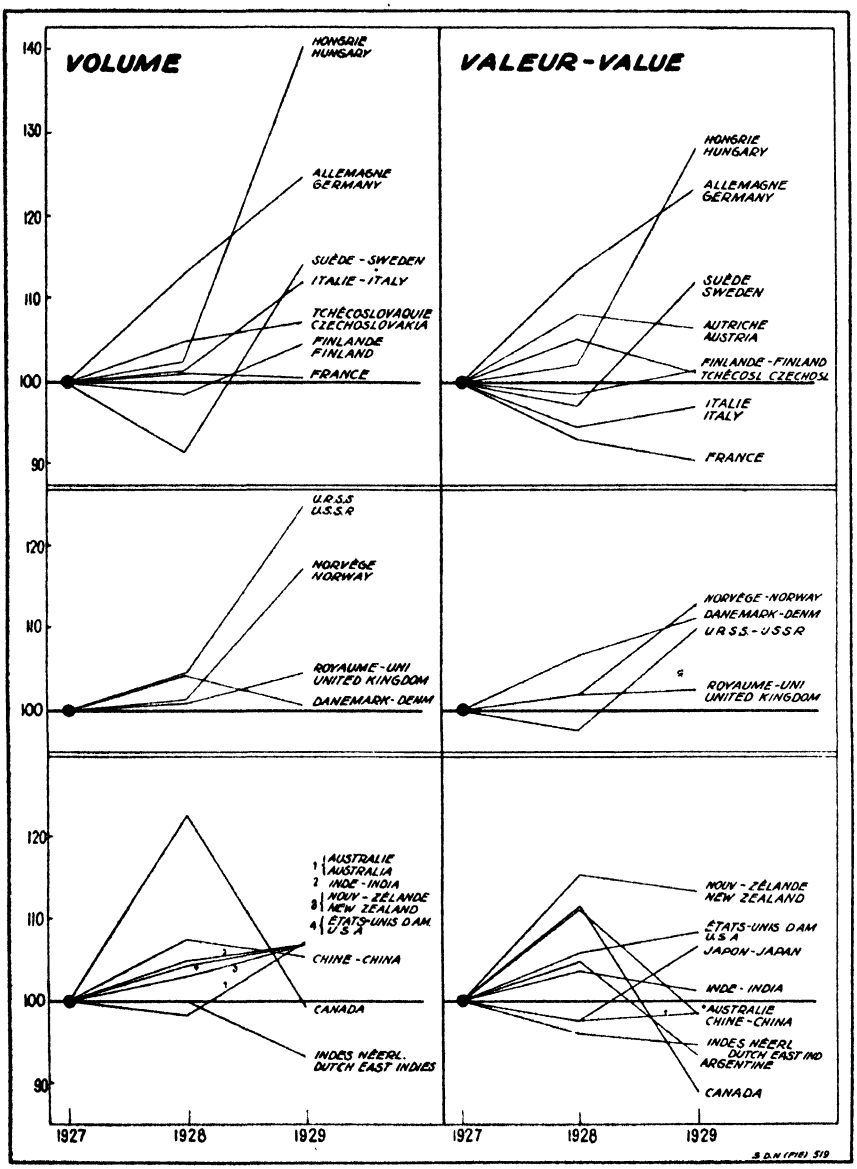
One of the most important aspects of business conditions during a boom is of course the movement of profits. Unfortunately, the evidence available is rather unsatisfactory. The general impression obtained from a study of this evidence is that profits rose substantially from 1927-1929, but much less than the stock-exchange prices. According to figures compiled by the National City Bank of New York, total net profits in six hundred American corporations were 22 per cent higher in 1928 and 39 per cent higher in 1929 than in 1927. It may be added that they were 27 per cent higher in the first half of 1929 than in the first half of 1928, [2] while they were 14 per cent higher in the third quarter of 1929 than in the third quarter of 1928. It is interesting to note that the increase in profits in the motor-car industry, despite its

[1] Source : *League of Nations Memorandum on Production and Trade* 1925 to 1929/30.

[2] Based on figures for about 900 corporations.

Chart 20.

World Trade. — Indices of Exports.



rapid expansion, were only about two-thirds of the averages given above.

In an account of business conditions during a boom period, it is necessary to pay special attention to the conditions on the capital market, as phenomena of speculation and credit are closely related to the general expansion. The first twelve months after the summer of 1927 were characterised by an easing of credit conditions, not only in the United States, under the influence of a deliberate policy by the Federal Reserve authorities, but in other countries as well. This easing of the money markets was one of the fundamental conditions of the general upward swing of business, which began or was stimulated during that period. The Federal Reserve system on this occasion led the way in a policy of cheaper credits, with the consequence that, in the thirteen months following May 1927, the monetary stock of gold in the United States declined no less than $600,000,000. The credit expansion which took place during this period in the United States went largely to the financing of speculation. According to available statistics, no less than 86 per cent of the total increase in bank credit was used for that purpose. Thus the foundation was laid for the stock-exchange boom which followed.

In the summer of 1928, the credit situation changed both in the United States and in the rest of the world. The American boom in construction, in the motor-car and other industries and on the stock market, led to a stringency on the money market and to an effort on the part of the Federal Reserve authorities to counteract the speculative movement. The excesses to which speculation had gone is illustrated, for instance, by the low yield of shares. As late as in September 1929, the average yield of industrial shares was less than 3 per cent, according to computations by the Standard Statistics Company. To counteract these tendencies, discount rates were raised and large sales of securities by the Federal Reserve Banks took place. Further, commercial banks in New York were persuaded not to lend money to the stock market. However, private money was attracted to the stock market by the high call loan rates, which for long periods averaged 8–9 per cent. This restriction of credit and the consequent high rates on the money market also attracted foreign funds and led to a reduction of American short-term investments abroad, while the issue of foreign securities in New York had already become much reduced at an earlier stage of the stock-exchange boom. These capital movements naturally affected the balances of payments of various countries, not so much by changing the imports and exports as by reversing the gold movement. In the latter half of 1928, the gold stocks of

the United States remained almost constant, but from January to October 1929 they rose by $260,000,000.

At about the same time, considerable amounts of gold were attracted to France, although under the influence of an entirely different set of circumstances. The French price level was relatively low in terms of gold after the stabilisation of the franc. This tended to stimulate the exports and to restrict the imports of commodities and to cause a surplus in the balance of current items in the international accounts. As a consequence, foreign balances, of which large amounts had been piled up during the so-called flight from the franc, grew rapidly. In the first half of 1929, the Bank of France exchanged a part of these foreign exchange reserves for gold. Later, when the Central Bank no longer deliberately pursued this policy, gold continued to flow in owing to the active balance of payments.

The high rates on call money ruling in the United States, the fear that the stock-exchange boom there would end in a sudden crash and to some extent the strain on gold supplies, induced Central Banks elsewhere to raise their rates and restrict credit.

C. The Turn.

Just at this time, in the summer of 1929, construction [1] and production in manufacturing industries in many countries ceased to expand and in some contracted appreciably. The apex of the boom seemed to be have been reached and passed. The orders for machine tools had turned sharply downwards in the beginning of the year and orders for other important equipment goods had followed the same course in the spring. It is of course impossible to indicate a single month as that in which the turn actually took place. Certain series changed direction much earlier than others. It has already been mentioned that commodity prices started moving downwards in 1928. But the reduction was slight during the first half of 1929 and, in view of rapidly increasing productivity, it cannot be regarded as of great consequence for a judgment of the business cycle tendency in that period. The prices of important world staples moved in a very irregular fashion, some rising, others falling, and no marked change took place during the first nine months of the year, although the tendency of the index for the whole group of staples was slightly downwards. It was only after the stock-exchange crash in October 1929 that the slump in prices gathered speed. With regard to movement of share prices, it must be stressed that the experiences

[1] See Chapter V A.

of the New York Stock Exchange were exceptional. In most countries, the quotations of shares started to decline at the beginning of 1929, in Germany and Japan even earlier. The relatively pessimistic view taken by speculators outside the United States, would seem to indicate a foreboding that a change in the business situation was imminent. Money rates were, as already indicated, entirely under the influence of American conditions. Only after the October crash did they turn decisively downwards ; but their decline in the following months was exceedingly rapid. The value of world trade also declined in the last quarter of 1929, but it is probable that the reduction in values was chiefly due to the drop in the prices of the commodities constituting that trade and only to a smaller extent to a contraction of the quantum.

The change in the output of manufacturing industries in certain countries can be followed from the charts given in Section A. It will be seen that output fell off in Canada and in Poland in February 1929 and in Germany and the United States in June of that year. The maximum figure for Great Britain was reached in the last quarter of the year. In Japan, production seems to have remained on a fairly stable level during the whole of 1929 and perhaps even increased a little, in spite of the fact that demand had begun to fall off some time before. In France and Sweden, the decisive turn only came in the following year. There are reasons to believe that, in a considerable number of the other countries which publish no indices of output in manufacturing industries as a whole, the slackening in general activity began in the summer of 1929.

A comparison of such figures for production and share prices leaves the impression that the extremely violent speculation and credit inflation in the United States delayed the break on the capital market and the change in the psychological atmosphere for a few months. It is significant that the wholesale price index in the United States moved upwards in the third quarter of the year, while prices were falling elsewhere.

To what extent the changes in production and in general business conditions in the spring and summer of 1929 were due to the stringency in the credit conditions referred to in Section B above, it is impossible to judge. The general evolution of production and of demand had been such, however, as to render it probable that, even if there had been no speculation on the New York Stock Exchange, if international capital transactions had been other than they were and money conditions easier during 1929, some change in business conditions would have taken place at about the same time as it actually did. On the other hand, it is also probable that the reversal of business

trends would have been much less radical and violent. The general increase in money rates in the third quarter of the year could not but contribute to the restriction of business activity.

After the break on the New York Stock Exchange, which decisively influenced other stock exchanges, commodity prices started to fall with great rapidity. Money rates were allowed to decline, but at this stage influenced but little the situation. Optimism gave way to a feeling of growing pessimism ; purchases were restricted and enterprise abandoned.

Chapter V.

A DESCRIPTION AND ANALYSIS OF THE DEPRESSION.

A. Production and Consumption.

Production.

It is difficult to make any exact measurement of the effects of the depression upon the world's productive activity. Several methods of approach are possible. In this section three main sources of evidence will be discussed — indices of production, records of unemployment and statistics of stocks.

The most comprehensive production index is the annual index of the production of foodstuffs and raw materials compiled by the League of Nations.[1] The general index for 1929 and 1930 is as follows :

Table I. — General Indices of Production, 1929 *and* 1930.

Continental group	1925 = 100		1929 = 100
	1929	1930	1930
Europe	117	113	96
North America	105	97	93
Rest of World	108	110	102
World	111	107	97

[1] *Cf. Memorandum on Production and Trade,* 1925-1929/30 (Geneva 1931), Chapter II. The indices for 1930 are provisional.

In examining the above figures, it should be observed that about two-thirds of the commodities included in the index are of agricultural origin. The fact that the aggregate drop was not greater is indeed due to the maintenance of agricultural production in spite of the decline in prices.

The variations in the output of agriculture may be seen from the following table showing indices of agricultural production – foodstuffs, raw materials and total.[1]

Table II. — Indices of Agricultural Production, 1929 and 1930.
(Base 1925 = 100.)

Continental groups	Foodstuffs		Raw materials		Total	
	1929	1930	1929	1930	1929	1930
Europe	109	110	125	111	111	110
North America . . .	94	92	100	105	99	96
Rest of World	104	108	112	112	107	110
World	104	105	111	110	105	106

The supply of agricultural products in a given year depends both on the acreage under cultivation and on atmospheric conditions. In 1930, the changes in total acreage, if any, were unimportant, and the weather was generally favourable. Thus the total agricultural production actually increased during the depression year.

Bumper crops of foodstuffs were reaped in 1928. The aggregate crops of the following year were both below the average for the five preceding years and extremely unequal. The yields of 1930 were again abundant. The world harvest of wheat, in particular, exceeded that of the preceding year by 13 per cent and the beet sugar output was no less than 25 per cent greater. A considerable reduction was recorded only in the case of maize, cane sugar, coffee and hops.

The relatively large output of agricultural raw materials in 1929 was almost equalled in 1930. The total production of textile raw materials, which had increased less than any other group of industrial raw materials, rose. The output of vegetable-oil

[1] The foodstuffs index comprises food crops, colonial produce and hops, but not meat and dairy produce, for which comprehensive information is not available; the raw-material index includes textiles, tobacco, vegetable oil materials, and rubber.

materials would not have shown a drop, had it not been for the extraordinary variations in olive-oil production in the two years considered. This is the main reason for the low European index for 1930. Rubber production, again, was largely affected by the artificial control which eventually failed and led to a huge over-supply in 1929. The decline of 6 per cent in 1930 was far from sufficient to re-establish the balance.

The agricultural depression was considerably aggravated by the inequality of crops in the last years under review. The agricultural year 1929-30 opened with abnormally large stocks of cereals. In the following season, the cereal harvests reaped in North and Latin America and Oceania were relatively small, while the European crops were of record size. As the requirements from overseas of the chief importing market consequently contracted, the major exporting countries found it difficult to market their whole supply. Accordingly, although the world harvests were reduced, a large surplus was carried over to the subsequent season. The world crops in 1930-31 were again large and again varied greatly in different parts of the world. The United States suffered from a serious drought. Soviet Russia, on the other hand, increased her food crops by approximately 20 per cent. A further disturbing factor thus arose — a sudden large increase in Russia's exports.

The inelasticity of the supply of agricultural products rendered the market more and more unstable. Stocks rose, while the restriction of international credit transactions [1] made it more and more difficult to finance them. Prices declined rapidly. (See Chart 21.)

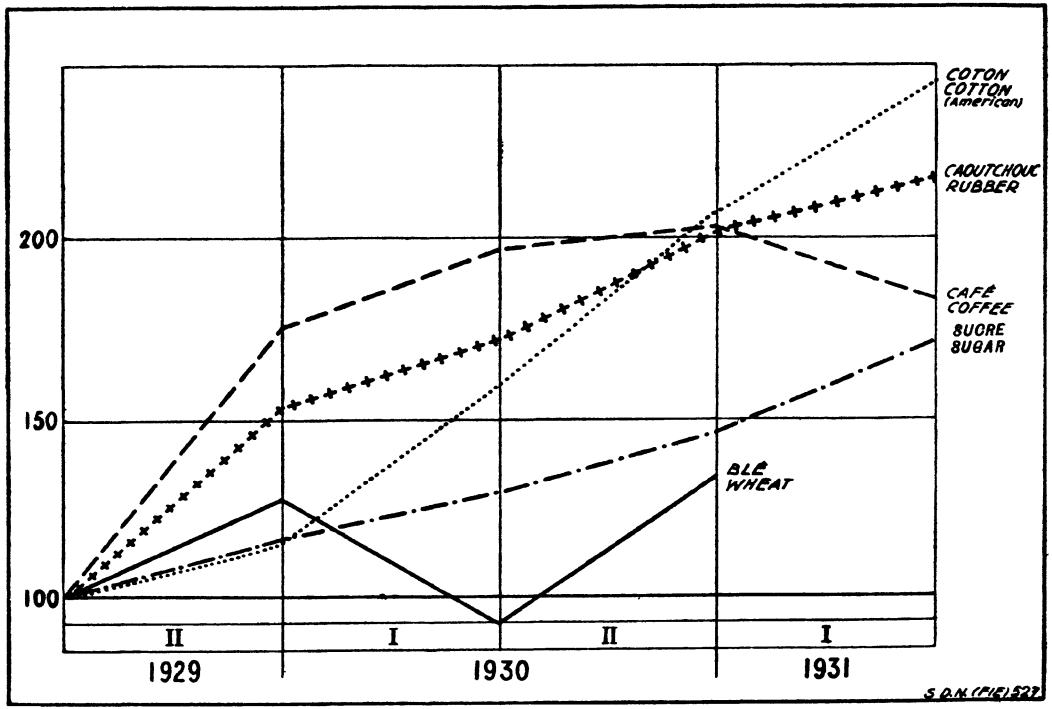
The disturbances consequent upon the accumulation of large stocks of agricultural products and a simultaneous heavy drop in prices were particularly severe in the Argentine, Australia and Canada and in some other minor producing countries. The value of the Canadian crop in 1929-30 is estimated to have declined to 84 per cent of the 1928-29 figure, and the value of the 1930-31 crop was only two-thirds that of the preceding year. In the United States, the value of the crop of 1929-30 has been estimated as 1 per cent greater than that of the preceding year, but the following year saw a drop of 29 per cent.

The shift in agricultural production away from the bread cereals which had begun a little before the depression [2] did not advance much during 1930 and the first half of 1931. One factor which counteracted the tendencies making for adjustment was

[1] See Chapter V E, below.
[2] See Chapter II A, above.

Chart 21.

STOCKS OF CERTAIN AGRICULTURAL PRODUCTS, 1929-1931.[1]



July 1st, 1929 = 100.
Wheat, sugar, rubber : world visible supply ; cotton : excluding European and Asiatic mills.

Sources : International Institute of Agriculture.
London and Cambridge Economic Service.
Institut für Konjunkturforschung.

the increase in European food tariffs.[1] Further, in many countries, measures designed to increase the demand for home-grown grains were introduced. As a result the price of wheat in many European countries has remained at least as high as before the depression. The wheat acreage in Europe has not been contracted in spite of the fact that Europe has drawn much less advantage from the technical progress than other continents. The figures for the area under wheat in Europe (U.S.S.R. excluded) are given below : [2]

1928	28.9	million	hectares.
1929	28.4	»	»
1930	29.5	»	»
1931	29.5	»	»

In certain South-Eastern European exporting countries, a reduction took place, but it was offset by an increase in other countries protected by rising tariffs. The area under rye has been considerably contracted in most countries, partly because of the fact that only insignificant quantities enter into international trade and that therefore maintenance of prices through protective measures is relatively difficult; this rendered profitable a shift from rye to wheat cultivation. The reduction of the rye area in Europe is, however, small compared with the contraction of the wheat acreage in other continents.

In the United States, the contraction has been relatively slight or from 24.9 million hectares in 1929 to 23.3 millions in 1931. The Federal Farm Board and other organisations which were set up to administer the Agricultural Marketing Act in the summer of 1929 have carried on a price stabilisation policy which in the harvest year 1930-31 kept wheat prices in Chicago about 15 per cent above world prices. This influenced exports and, in spite of increased feeding to live-stock, the visible supply of wheat in the United States at the end of May 1931 was more than 50 million quintals as compared with 33 millions in May 1930. The former figure is more than half of one year's production in that country.

The Argentine, Canada and Australia, the very countries which have probably been able to reduce costs more than others through the technical progress which was described in Chapter II, have been forced by the low prices of cereals ruling on the world market considerably to reduce their area under wheat, as may be seen from the following table :

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[1] See Table V in Appendix and *The Agricultural Situation in 1929-30* published by the International Institute of Agriculture.

[2] International Institute of Agriculture.

Table III. — Area under Wheat. [1]

Hectares (000,000's)

	1928	1929	1930	1931
Argentine . .	9.1	6.4	8.0	6.9 [2]
Australia . . .	6.0	6.0	7.4	5.4
Canada . . .	9.8	10.2	10.1	9.3

The Russian production of wheat, which rose before the depression, has continued to do so in the last two years. Favourable weather conditions made the harvest in 1930 very large and the export of wheat from August 1930 to May 1931 amounted to 2.8 million tons. Although this represented a large increase compared with the previous year, it was only about 70 per cent of the normal pre-war export.

The tendency towards increased output of animal foodstuffs seems to have continued almost everywhere during the depression. On the other hand, demand for these relatively expensive foods has probably been unfavourably affected. It is not surprising, therefore, that their prices, which were fairly well maintained in the beginning, have declined rapidly since the autumn of 1930. Even by the end of that year, however, their prices had not fallen from the average of 1929 more than the price of fodder, but they dropped much more rapidly in 1931. Dairy farming has thus become far less profitable than a year ago.

In view of these facts and the difficulty experienced by many farmers in raising the capital needed for an expansion of dairy farming, it is not surprising that in many countries the increase in the production of animal foodstuffs has been slight. On the other hand, to judge from export returns, Australia, South Africa, New Zealand, the Irish Free State and Denmark, in which cereal prices have not been maintained at artificial levels, have increased their dairy farming to a large extent.

Thus, the drop in prices both of vegetable and animal foodstuffs has not led to a reduced supply, rather the contrary.

In striking contrast with the movement of agricultural production, the output of non-agricultural raw materials rose steeply in 1929 and fell heavily in 1930. [3] The world index of the output of non-agricultural products in 1930 was the lowest since 1926, the year of the British coal dispute. These raw

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[1] International Institute of Agriculture.

[2] Official estimate of area sown ; for previous years, figures represent area harvested. Area sown, in millions of hectares, was as follows; 1928, 9.2 ; 1929, 8.3 ; 1930, 8.6.

[3] The index comprises fuels, metals, chemicals, cement and wood pulp.

materials, however, weigh less in the combined index than agricultural products. The index for the production of both groups of commodities for 1930 is higher than that for 1927 and only slightly below that for 1928. [1]

Table IV. — Indices of Raw Material Production, 1929 and 1930.
(Base 1925 = 100.)

Continental Groups	Non-agricultural raw materials		All raw materials	
	1929	1930	1929	1930
Europe	133	122	131	119
North America	119	98	114	100
Rest of World	129	124	116	115
World	126	111	120	110

The reduction in world production of coal and lignite during 1930 by 127 million tons or about 9 per cent was very striking. Output in the United States alone fell by 70 million tons and stood at a lower figure than in any year since 1922. The decrease was also considerable in Germany, the United Kingdom and Poland. Petroleum output was reduced less — by 11 million tons or 5 per cent — and remained higher than in any year before 1929. The reduction was mainly due to the application of the restriction scheme in the United States. Several other countries — namely, the U. S. S. R., Roumania, Venezuela and the Netherlands Indies — increased their output.

In the metal group the greatest drop was recorded. The production of pig-iron was commonly accepted before the war as a rough index of general industrial activity. Its value for this purpose has decreased in recent years, but, together with the crude steel output, it reflects fairly well the variations in the heavy industries. The output of iron and steel in 1930 was reduced almost to the 1926 level. As compared with the record figures of 1929, the drop in iron output was about 18 million tons, or over 18 per cent, and that in steel output rather more — 26 million tons, or almost 22 per cent. The drop was again more pronounced in North America than in the other important industrial area. The contraction in pig-iron was slightly, and that in steel considerably, more than a quarter in America, but about a seventh only in Europe.

[1] *Cf.* Chapter I A.

The production of non-ferrous metals was affected in much the same way as that of iron and steel ; but the reduction was more moderate. Copper output fell by 18 per cent, that of tin by 9 per cent, that of lead by 7 per cent, and that of zinc by 6 per cent.

The restriction of the production of metals has been facilitated by the existence of national and international combines and cartels in these industries. The statistics show clearly that both the advance in 1929 and the drop in 1930 was greater in the countries belonging to the European Steel Entente than in other countries of Europe. The Tin Producers' Association was strengthened during 1930, and the Zinc Cartel, which was dissolved at the end of 1929, was reconstituted in the middle of 1931. On the other hand, the policy of control exercised by Copper Exporters, Incorporated, was abandoned in the beginning of 1930.

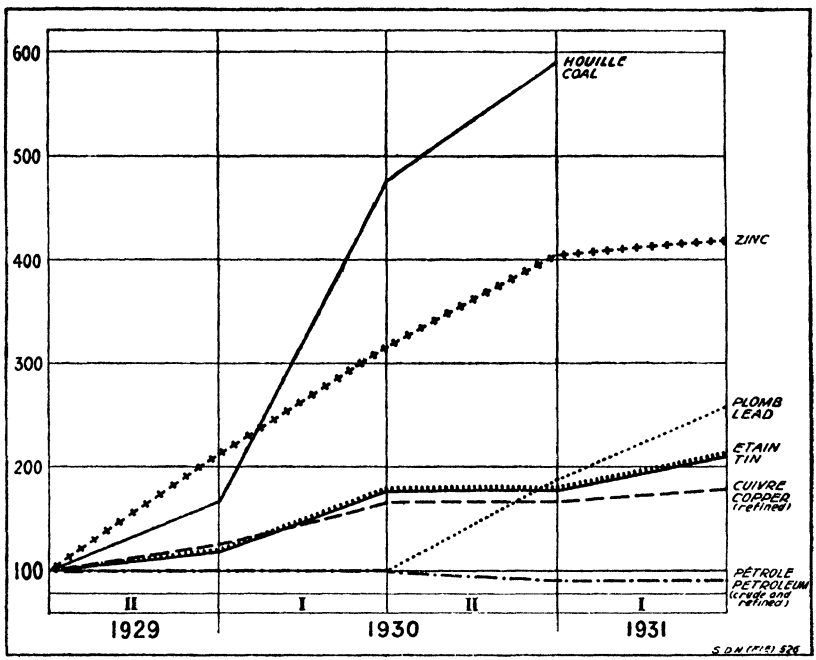
Similar developments have taken place in the production of timber and wood pulp. It is difficult to gauge the aggregate effect of the depression upon the timber industry, as a considerable drop in the output of countries of Northern Europe and Northern America — ranging from 13 per cent in Canada to 26 per cent in Finland — was counterbalanced by a very large increase in the output of Russia. The contraction of production in Northern Europe was mainly due to the reappearance of Russia as a large timber exporter. The pulp industry, although not affected by Russian competition, was also obliged to cut down production on account of a decline in demand. In 1929, the syndicate of Finnish, Norwegian and Swedish producers of mechanical pulp had taken measures to curtail output, and in 1930 the producers of sulphite pulp in Northern and Central Europe agreed to adopt a similar course.

Drastic as the contraction of raw-material production was, consumption dwindled still more. Certain industries had accumulated stocks during the period of boom in 1928-29, but these stocks, although in many cases larger than in normal times, were generally small as compared with the total annual output. The changes in visible stocks during the depression will be seen from Chart 22.

Stocks held by the producers appear on the whole to have increased rapidly. In the case of petroleum, however, this was not true. At the end of 1929, the stocks in the United States reached an unprecedented figure, equivalent to almost two-thirds of the total annual output of the country. In 1930, in spite of a rather moderate decrease in output, stocks with producers diminished ; but the volume of petroleum stored by the oil refineries increased. Thus, it would appear that in the

Chart 22.

STOCKS OF CERTAIN MINERAL PRODUCTS, 1929-1931. [1] [2]



first half of 1931, stocks of raw materials were still increasing, although on the whole at a somewhat slower rate.

The drop in the production of manufactured goods can only be measured by means of national statistics. The national indices of production available generally cover mining, building and manufacturing industries ; they are comparable neither with the indices given above nor between themselves. [3]

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[1] July 1st, 1929, relatives ; for lead, July 1st, 1930, relatives.
Coal in Belgium, Germany, Upper Silesia, Saar ; petroleum in the U. S. A. ; copper, world excluding Japan ; lead in the U. S. A. ; tin, world.

[2] Sources : London and Cambridge Economic Service.
Institut für Konjunkturforschung.

[3] *Cf. Memorandum on Production and Trade*, 1925-1929/30, Ch. IV, and the *Statistical Year-Book of the League of Nations*, 1930-31, Table 91.

Table V. — Quarterly Indices of Industrial Production, 1929-31.
(Base 1929 = 100.)

Year and Quarter		France *(a)*	Germany	Poland *(b)*	Sweden	United Kingdom		U.S.S.R.	Canada *(b)*	U.S.A. *(b)*
						Board of Trade	London and Camb.			
1929	I	99	93	102	103	99	98	93	106	99
	II	101	107	101	100	100	100	93	102	104
	III	100	101	98	97	99	98	98	97	103
	IV	103	97	98	99	102	104	116	96	92
1930	I	103	92	84	110	99	99	121	90	88
	II	104	88	80	102	92	91	115	91	87
	III	100	78	82	93	88	82	111	82	77
	IV	97	74	82	90	88	84	144	78	71
1931	I	95	68	72	88	85	77	—	76	72
	II	92	73	72	81	82	73	—	76	74

(a) Partly adjusted for seasonal variations.
(b) Adjusted for seasonal variations.

The chart in Chapter IV A and the table above give a general idea of the course and incidence of the industrial depression.[1] In the first half of 1929, the general movement was erratic ; industry began to be generally affected in the second half-year. The recession continued in 1930, gathering force in the second half of the year. In the spring of 1931, as in that of 1930, the downward trend of production was somewhat checked.

This is a rough summary of world conditions : conditions in individual countries were very different. Thus in certain countries industrial production had begun to stagnate before 1929. This was the case in Germany where, however, a temporary expansion took place from December 1928 to June 1929. The culminating point of industrial development in Poland had been reached and passed by the end of 1928. In Canada, the downward trend began in February 1929. On the other hand, the general upward movement of the British indices was still maintained in the last quarter of 1929, and the decline

[1] See Charts 15 and 16.

started only in the early months of 1930. In France, productive activity advanced almost without interruption in 1929, and the level then reached was maintained throughout the first half of 1930. The production in Sweden was maintained during 1929, except for a seasonal contraction in the third quarter, and reached its highest point in the first quarter of 1930. During the greater part of 1930, the downward trend of productive activity showed considerable uniformity. Far less uniformity was noticeable in the first half of 1931. The United States showed some signs of revival, in some countries there was little change and in others the recession continued.

The physical volume of production dropped in practically all countries during 1930 ; much more in some than in others. The drop was greatest in the United States, Germany and Poland — the average volume of production in 1930 was nearly 20 per cent below that in the preceding year. In Canada, the decline in production began earlier than in the United States, but was not so pronounced — about 15 per cent between 1929 and 1930. Great Britain had advanced less rapidly than many other countries during the boom period, but withstood the strain better, the drop in her annual production in 1930 being only about 10 per cent. The total drop was very small in Sweden and nil in France.

In the first half of 1931 these relative positions were altered. Productive activity in manufacturing industries in most countries concerned remained only slightly below the average level reached in the preceding half-year; but Great Britain and Sweden now suffered seriously. The net result was that in North America, Great Britain, Central European countries and Sweden the aggregate decrease of production from the average level of 1929 was within the remarkably narrow range of 21-28 per cent.

Indices of production, taken alone, do not fully reflect the violence of the crisis. This is shown more clearly by the records of unemployment. It had remained high in some countries, especially the United Kingdom, even during the period of general prosperity ; in others, such as Germany, it has been increasing since the beginning of 1928. But since the turn of the business cycle, unemployment has been growing rapidly in practically all countries.

The aggregate number of the unemployed workers in the industrial countries of the world was estimated, at the end of 1929, at some 10 millions ; it reached about 20 millions in the beginning of 1931.[1] The largest volume of unemployment at

[1] *Cf.* International Labour Office : *"Unemployment Problems in 1931"* (Studies and Reports, C:16), pp. 12 *et seq.*

the latter date (January or February, 1931) was recorded in the following countries : [1]

Table VI. — Number of Unemployed in Certain Countries.

United States . .	6,000,000 [2]	Poland	359,000
Germany	4,972,000	Czechoslovakia .	344,000
United Kingdom.	2,697,000	Austria	331,200
Italy	792,000	Belgium	204,000
Japan	387,000	Australia	114,000 [3]

Another index of the crisis in the labour market is provided by the proportion unemployed of the total of workers covered by the trade-union or insurance statistics. In June 1931, this proportion was especially high in the following countries :

Table VII. — Unemployment Percentages in Certain Countries.

Germany (wholly unemployed	30	Canada	16
Australia	28	Netherlands	13
Norway	25	Denmark	12
United Kingdom (wholly unemployed)	16	Poland	12
		Sweden	12

The employment index of the U. S. Department of Labor for the manufacturing industries, based on 1926, was 99 in September 1929, but stood at 73 in January and at 72 in June 1931.

Similar statistics are not published for all countries; but available information suggests that in many other countries the labour-market situation was equally depressed.

The U. S. S. R. has reported a great expansion of industrial activity and a sharp decline in unemployment in 1930.

Owing to the decline in real investment, the drop in the physical volume of production has been greatest in the heavy industries. [4] It has already been mentioned that the world output of iron and steel decreased by roughly a fifth in 1930 as compared with the preceding year, and in the United States by more than a fourth. This heavy decline continued in the first half of 1931. Similarly, mechanical engineering was more

[1] Source: *League of Nations Monthly Bulletin of Statistics.* The figures shown are not comparable: they are intended only to give a very rough indication of the magnitude of unemployment in the various countries.

[2] Unofficial estimate.

[3] March.

[4] For further information concerning the position of individual industries, see *Memorandum on Production and Trade,* 1925-1929/30, Chapter IV. See also Charts in Chapter VI below and Table XII in Appendix.

depressed than manufacturing industries in general in 1930-31. In the United States, the demand for machine tools and foundry equipment was reduced by about one-half during 1930. On the other hand, the high level of production reached in France in 1929 was maintained in the subsequent year, and dropped only in the latter part of 1930 and the first half of 1931.

The contraction in international trade and the low freight rates have severely affected shipbuilding. Owing to flow of orders received in 1929, shipyards were relatively busy during the first part of 1930 and total tonnage launched increased in that year as may be seen from the following table. But the tonnage under construction in the world fell from some 3,000,000 tons in December 1929 to 1,825,000 tons in June 1931. The United Kingdom and Germany have suffered most severely. The demand of the United States and other countries has been diverted to domestic shipyards.

Table VIII. — Tonnage launched annually. [1]

Vessels of 100 tons and upwards.
(tons measurement, 000's omitted).

1911–1913	2,962	1928	2,674
1919–1921	5,788	1929	2,759
1925–1927	2,031	1930	2,889

The position of the motor industry is peculiar, inasmuch as five-sixths of all motor vehicles are produced in North America, where it is one of the greatest industries. The total output in the United States and Canada decreased in 1930 by 38 per cent; the upward trend noticeable in the beginning of 1931 was of a seasonal character. On the other hand, the two chief European producers of motor vehicles, France and the United Kingdom, suffered comparatively little in 1930. Rubber manufacture is closely connected with the motor-car industry; in fact, nearly 85 per cent of all raw rubber is said to be used in the manufacture of tyres and tubes. The set-back in the rubber industry in 1930 was, however, not so serious : the French and British industries actually increased their output.

In striking contrast to the heavy industries, the production of electrical energy and electrical engineering appear to have been but little affected by the depression, although the long upward trend in these industries has been checked. The exports of electrical apparatus from most European countries actually increased in 1930. Those from the United States were almost

[1] Since 1919 not including Russia.

maintained ; orders, however, decreased rapidly towards the end of the year.

Long before the general industrial crisis, conditions in the textile industry had been depressed. The level of activity in these industries in 1929 had been low in comparison with other industries, and by 1930 their activity had fallen near or below the level of 1925. Cotton has suffered more than other branches of the textile industry ; the mill consumption of raw cotton diminished, between the half-year ending January 1930 and the corresponding period in 1930-31, by 17 per cent. Activity in the cotton-spinning industry in Germany declined in 1929; in 1930 it fell off by 24 per cent in the United States, by 28 per cent in the United Kingdom, and by 7 per cent in France ; it was the only important branch of the Russian industrial activity in which no advance was recorded. Meanwhile India registered an increase of 18 per cent. The woollen and worsted trade on the whole resisted the depression much better. A considerable reduction in activity — 29 per cent — was nevertheless recorded in the United States. The activity of the silk and artificial silk industries in general declined rather little during 1929-30. The largest national silk industry in the world, that of the United States, showed a drop of only 7 per cent, and an upward trend was noticeable in the winter of 1930-31. On the other hand, the French silk industry has declined sharply since 1928, the total drop in production during the two subsequent years being about 33 per cent. The artificial silk industry, again, maintained its position fairly well, world production decreasing by only 2 per cent between 1929 and 1930. The general level of activity in the textile industries was nevertheless rather low by the end of 1930, but showed signs of stabilisation during the first half of 1931.

With the textile trades, the leather and boot and shoe industries were among the first to be seriously affected by the general industrial depression. Activity in these industries had been declining in Germany and Sweden since 1927, and in most other countries the busiest year was 1928. Except in France, however, the depression has not been as severe as in the case of textiles. In Great Britain and the U. S. S. R. the indices for this group rose in 1930.

In the food and drink, paper and printing industries activity appears to have remained relatively stable throughout the depression. [1]

Variations in productive activity are closely related to changes in stocks. After the outbreak of the crisis, manufacturers and

[1] The differences in the development of industries producing consumers' and producers' goods will be discussed in Chapter VI D below.

merchants restricted their purchases of raw materials which tended to fall in price ; thus, while stocks of raw materials held by the producers, as shown above, have increased during the whole period of depression, it is probable that stocks in the hands of manufacturers have declined. Unfortunately, practically no data are available to throw light on this question. The case is very much the same with regard to stocks of manufactured commodities. There is reason for believing that wholesale merchants have been carrying as small stocks of manufactured goods as possible and have bought " from hand to mouth ". Manufacturers, however, were unwilling to produce for stock. The stocks of manufactured goods held by manufacturers probably increased a little in the earlier stages of the depression, but there is no evidence that they have continued to grow. On the whole, visible stocks of manufactured goods seem to vary less than those of raw materials. This is the impression obtained from the following indices of stocks for the United States (monthly average 1923-1925 = 100) :

Table IX. — Commodity Stocks in the United States.

	June 1929	Dec. 1929	June 1930	Dec. 1930	June 1931
Raw materials	120	186	125	195	144
Manufactured goods . .	121	119	125	121	120

There are of course marked differences in the movement of stocks of different kinds of commodities. The statistics available for the United States as well as Germany go to show that the stocks of producers' goods have tended to increase during the depression, while those of finished consumption goods have decreased.

In the retail trade a reduction of inventories has also taken place, but it seems to have been relatively small. The figures for the value of stocks have declined not more than the prices of manufactured commodities. However, as the stocks are usually kept in the books at the prices at which they were bought, the average book-keeping price has declined much more slowly than the purchase price. Hence, it is probable that the volume has declined a little. In the table below are given certain figures for the United Kingdom and the United States. Whatever information is available concerning the purchases and sales of department stores points in the same direction, as it indicates that the former have been restricted more than the latter and that consequently some reduction of stocks has taken place. Nothing suggests, however, that any considerable decline has taken place, although it is possible that the reduction has been greater in shops of a different character.

Table X. — Movement of Retail Stocks. *

	Percentage change	
	from 1929 to 1930	from 1930 to 1931
United Kingdom		
Department stores	−5.7 [1]	
Department stores, Co-operative stores, Multiple stores		−6.8 [2]
United States		
Department stores	−3.4	−11.0 [3]

The absence of reliable information concerning the variations in stocks of commodities is one of the greatest obstacles to a scientific analysis of the depression.

The preceding review of the extent and nature of the depression from the end of 1929 to the middle of 1931 shows that the balance of the industrial system has been seriously disturbed. Raw-material production decreased by about one-tenth and the industrial production perhaps by one-quarter. Unemployment was doubled ; in the leading industrial countries it affected from about one-sixth to one-fourth of the entire labour force, and the total number out of work grew to little less than the astounding figure of 20 millions. Yet it should not be forgotten that the aggregate wealth of the world was, at the outbreak of the crisis, higher than ever before. Thus the level of production and the aggregate national income in terms of goods and services in most countries are even now higher than only a few years ago.

Building Activity.

For some years after the war the scarcity of capital and the rent restriction enforced in many countries exercised a depressing influence on the activity in the building industry. But with the economic reconstruction of Europe and the rapid economic development in other countries, a strong demand for new buildings began to make itself felt. From 1922 onwards, constructional activity increased rapidly in the United States, from

* Sources : United Kingdom, *Board of Trade Journal.*
United States, *Survey of Current Business.*

[1] August-December.
[2] February-June.
[3] January-May.

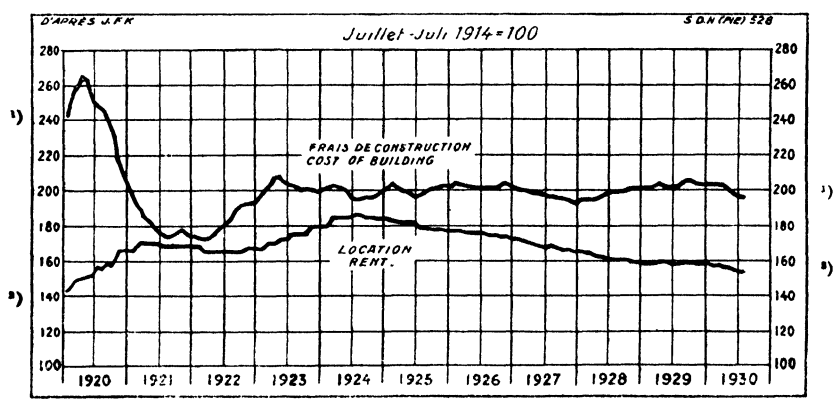
1923 in Canada, and in the following years a similar, although less pronounced, movement made itself felt elsewhere. In Germany, the total value of new constructions in 1924 was smaller than the estimated depreciation of existing buildings. In 1927, however, the value of new constructions was 2½ times as great as this estimated depreciation.

By 1928, the building trade was well occupied in most countries and showed a strong tendency to expand ; in many countries, indeed, building activity was greater than ever previously recorded. The only important exception was Great Britain, where the number of houses finished showed a small decline in 1928. The number of building permits, however, was slightly larger than in the preceding year.

It is a well-known phenomenon of pre-war economic history that, during the latter part of pre-war boom periods, capital was diverted from building construction to other forms of investment. In such periods, the falling prices of mortgage bonds and the rising prices of shares made it difficult to secure adequate supplies of capital for building at a profitable rate of interest. In 1929 in some countries — in particular the United States — such a decline in the construction of residential buildings was noticeable. In the United States, however, the volume of construction had been exceptionally large for no less than six years, and in 1928 and 1929 the level of rents declined considerably relative to building costs.

Chart 23.

BUILDING COSTS AND HOUSE RENT IN THE UNITED STATES. *



* Source : *Vierteljahrshefte zur Konjunkturforschung.*

[1] Index of the New York Federal Reserve Bank.

[2] Index of the National Industrial Conference Board.

In most countries, on the other hand, construction kept up well during 1929. This was the case in Austria, Belgium, the Netherlands, the United Kingdom, Italy and Sweden, as shown by the following unemployment figures. It was also true of France, Switzerland, Denmark and Poland, and, although less, of Canada and Germany.

Table XI. — Unemployment in the Building Trade.

June	Percentage of trade unionists unemployed						Numbers of trade unionists unemployed (000's)	
	Belgium	Canada	Germany	Netherlands	United Kingdom	Sweden	Austria [2]	Italy [3]
1927	1.8	8.0	5.3	8.5	6.9	4.7	12	43
1928 .	0.4	3.9	8.0	7.0	9.7	2.4	8	62
1929 .	0.1	7.5	10.4	2.1	8.6	1.5	17	39
1930 .	2.7	26.2	38.0	6.2	13.1[1]	4.2	28	71
1931 .	11.5	—	56.6	—	18.6	—	—	164

In Czechoslovakia, the number of rooms finished dropped by 25 per cent in 1929. This fall was, however, largely due to the discontinuation from the beginning of that year of tax exemption for new houses. Of other countries for which material is available only Finland recorded a serious decline in building activity in that year. In this country a very pronounced building boom came to an end in the previous year as a result of the tightening of the money market and the consequent sudden restriction of credit for the building trade.

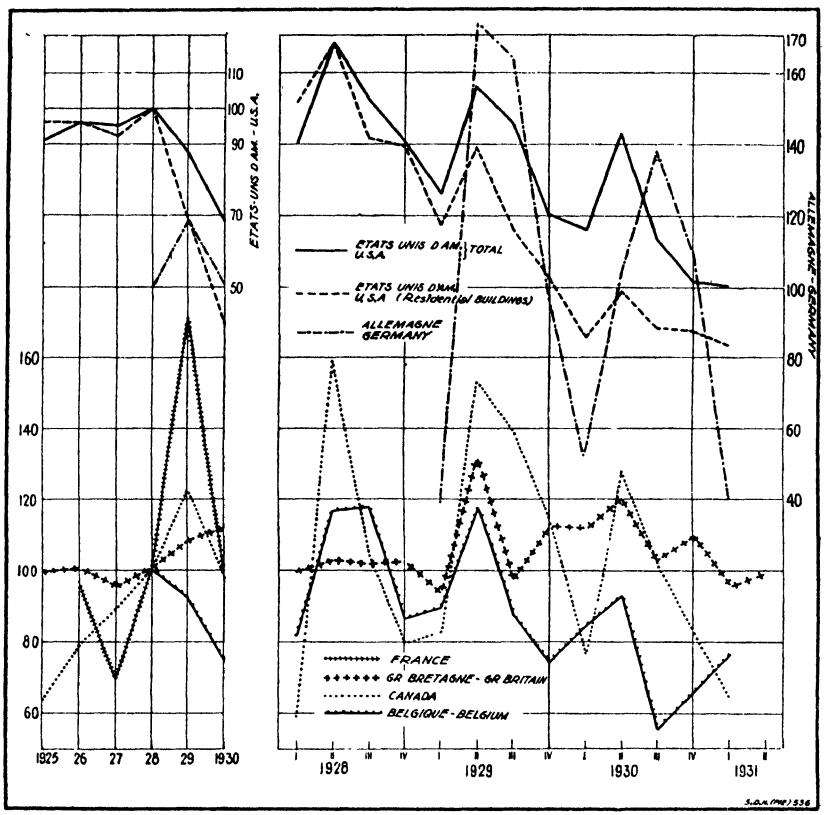
In 1930, divergent tendencies made themselves felt. In a number of countries, and in particular some non-European countries which depend on foreign investments, building appears to have been suddenly checked. In other borrowing countries, the reduction of capital imports and perhaps also the reduction in domestic savings seriously affected constructional activity. (See Chart 24.)

The rapidity of the contraction in the German building trade, as shown in Table XI, was largely due to reductions in public expenditure. No less than 80 per cent of the building in 1929

[1] In February 1930 a change in the system of recording unemployment took place.
[2] Compulsorily insured.
[3] Unemployed registered.

Chart 24.

BUILDING ACTIVITY.[1]
(1928 = 100).



[1] Canada, U. S. A.: contracts awarded; United Kingdom, Belgium: building permits; Germany: buildings commenced.

was on account of public authorities or subsidised out of public funds.

On the other hand, activity was well maintained in certain capital-exporting countries — France, Belgium, Switzerland, Sweden, Netherlands, Czechoslovakia and the United Kingdom. This was one result of the increase in the proportion of capital used by capital-exporting countries for investment at home, to which reference is made elsewhere in this report. In Denmark, where the depression was relatively little felt, building activity continued to expand in 1930.

Little information regarding the year 1931 is at present available, but from figures for building permits in certain countries it is clear that the decline in building activity is spreading (see Chapter VIII).

Consumption.

Statistics and other sources of material which throw light on the changes in demand and consumption are exceedingly scarce. Figures for world production probably provide the best basis for an opinion regarding the variations in world consumption. It is true, however, that in many cases stocks have varied considerably from one year to another, and the magnitude of such stocks is never completely known. The analysis made in the preceding section of the restriction of output and the increase in stocks since the beginning of the depression nevertheless serves well to indicate the recent changes in world consumption. The present section will be concerned more especially with changes in certain individual countries which can be observed from figures of domestic and international trade, receipts from indirect taxation, etc.

Consumption has naturally been affected very differently from one country to another, just as within individual countries the various groups have suffered in different degrees. As might be expected, the industrial countries record a far smaller contraction than those whose economy is largely dependent on the export of cereals or other crude products which have fallen heavily in price. The extent of the contraction has again in part depended on the social and economic organisation of the countries concerned, and in part on the length of time during which conditions have been depressed.

Returns of the production and stocks of foodstuffs have shown that the world's food consumption has been well maintained in spite of the impoverishment caused by the depression. Other sources of evidence — *e.g.*, from the retail trade — amply show that, in European countries at all events, food consumption

has been but little affected. The depression has in many countries led to less serious physical want than might have been anticipated, although in the last few months conditions appear to have been aggravated in many parts of the world. Wage indices have almost everywhere fallen less rapidly than the cost-of-living indices, and State relief or insurance benefits have done much to maintain the consumption of the unemployed.

Even where incomes have fallen, however, consumption of all but the very poorest classes has on the whole been well maintained, owing to the rigidity of personal habits. It would seem that the habit of eating meat and wheat bread acquired in the past ten years in many parts of Central and Eastern Europe is resisting the recent changes. Thus, although the fall in the retail price of meat, eggs and fats has been relatively small during 1930, the consumption of these commodities was maintained in Germany, Hungary and other European countries which have been not the least affected by the depression. Indeed, so far as foodstuffs are concerned, it would appear that the upward trend of demand for animal foods, vegetables, fruit, etc., noticeable before the depression, continued to assert itself, although less strongly than before. This phenomenon has of course been partly due to the fall in prices.

The maintenance of consumption is of course also in part the result of the inability of the peasant to sell his produce except at prices greatly lower than he had anticipated. Its value to him as a consumer came to exceed its exchange value.

In Germany, the consumption of fish, eggs, groceries, sugar, coffee, tea and exotic fruits was greater in 1930 than in 1929, but for certain of these articles the figures for the first quarter of 1931 showed signs of decline. In Belgium, the rapid expansion in imports of exotic fruits was arrested, but the figures were higher than for any year except 1929. The yield of the various taxes on consumption in France was 6 per cent below the 1929 figure, but the latest monthly figures show no pronounced downward trend. In Austria, more exotic fruits, more wine, more sugar were being consumed *per capita* in 1930 than in the previous year.

The consumption of beer, wines, spirits and tobacco has, in 1931, been very considerably reduced. In Germany, the consumption of cigarettes was lower in the first quarter of 1931 by 46 per cent and that of cigars 49 per cent than in the corresponding period of 1930. The reduction in the United States was 9 per cent for cigars for the period

[1] *Indices du mouvement des affaires,* Institut de Statistique de l'Université de Paris.

January-May in these years. Consumption of tobacco in Italy in the first five months of 1931 was 11 per cent less than in the corresponding period of 1930. It is uncertain, however, to what extent this has been due to reduced purchasing power. Taxes on such goods have been increased in many countries, and the consequent increase in the price paid by the consumer has naturally reduced demand.

The countries mentioned above are chiefly those with a large manufacturing industry, which have suffered less than many others from the depression. The situation has been somewhat different for countries largely dependent on the production and export of primary products, although, even in their case, the decline in consumption has been mainly confined to goods other than foodstuffs. Some countries, however, whose economy is dependent upon a single raw material or upon a small number of them, have been so much affected by the depression that even their consumption of food has been radically cut down. The Gold Coast may be selected as an example.

Table XII.—Percentage Reduction of Imports into the Gold Coast. (From the first quarter of 1930 to the first quarter of 1931).

Canned fish	66	Milk	28
Rice	58	Gin	98
Flour	64	Sugar	60
Salt beef	42	Tobacco	69
Canned beef	94	Cigarettes	74

One obvious reason why the demand for foodstuffs has kept up so well lies in the constitution of the human body. We are able to postpone for a longer or shorter time our demand for almost everything except food. Further, foodstuffs are consumed once and for all when they are eaten. Textiles, clothing, shoes and similar commodities are naturally more durable, but less so than, for instance, furniture, household utensils, motor-cars, radios and gramophones. The first group of commodities satisfies less insistent needs than foodstuffs, but needs which are usually regarded as ranking higher in the scale of needs than the latter group. Hence, for two reasons demand for the latter class of durable goods might be expected to decline more during periods of bad business than that for the former.

A study of the scanty material available for retail trade suggests that this has actually happened. The chief conclusion to be drawn from this material is, however, that total sales have

kept up very well in retail trade as a whole. Some information concerning conditions in Germany, the United Kingdom and the United States is given in the table below.

Table XIII. — Percentage Change in Value of Retail Sales. [1]

	From 1929 to 1930	From 1930 to 1931
Germany :		
Co-operative stores . .	+ 2.9	— 3.3 (Jan.-March)
Department stores . .	+ 6.3	— 13.0 (Jan.-April)
United Kindom :		
Department stores . .	— 3.7 [2]	
Co-operative stores, Multiple stores and Department stores .		— 4.2 (Feb.-June)
United States :		
Department stores . .	— 7.3	— 5.5 [3] (Jan.-May)
Mail order houses . .		— 12.2 [3] (Jan.-May)
Ten cent chain stores.		— 0.6 [3] (Jan.-May)

The reduction is remarkably small in view of the fact that retail prices have of course also dropped. Indeed it is doubtful whether the volume of retail trade has declined at all in the United Kingdom. For clothing the drop in prices would seem to have been substantially greater than that in the value of sales ; the volume sold would therefore have actually increased. Even in Germany the reduction has probably been small. In the first half of 1931, the value of total retail sales was 16.7 per cent lower than in the same period of 1929. For foodstuffs the decline was 13.4 per cent, but this was 2 per cent less than the drop in the prices. The retail prices of textile goods were 17.4 per cent lower, whereas the value of sales of such goods had declined 20.5 per cent. Thus the volume sold seems to have dropped about 3 per cent. A study of price

[1] Sources : Germany, *Vierteljahrshefte zur Konjunktursforschung.*
United Kingdom, *Board of Trade Journal.*
United States, *Survey of Current Business.*

[2] August-December.

[3] Drop from corresponding period in 1929 : 9, 12.3 and 3 per cent respectively.

figures for individual commodities in the United States leads up to very much the same conclusion for that country.

In the boot-and-shoe trade there has been a definite reduction in sales, and it is probable that for this the decline in prices has been only partly responsible. Furniture sales have also dropped more than sales of most commodities. For instance, in the United States in the second half of 1930 the value of sales was nearly 30 per cent lower than in the same period of 1929. In Belgium in the first five months of 1931, sales of furniture were as much as 31 per cent less than in the same period of 1930. Even in this branch, however, sales in the United Kingdom declined very little. From the period February to June 1930 to the same period in 1931, the reported reduction in the value of sales was only 1 per cent, which indicates an actual increase in the quantity sold. Sales of hardware and fancy goods have also declined but little in that country. It is worth observing, however, that the local differences are enormous, the northern part of the country showing much less favourable figures than southern England.

In the United States, jewellery sales declined a great deal. In the first half of 1930 they were 20 per cent lower than in the same period of 1929. The corresponding figure for the second half of the year was 24 per cent. Here again considerable price reductions make it uncertain how the volume of sales has varied. On the other hand, the sales of electrical appliances, which had shown a rising trend before the depression, slightly increased even afterwards.

The general impression obtained from these and other figures is that the volume of retail trade has changed very little except for a few durable commodities such as furniture and possibly shoes. Certainly in such a country as Sweden there has been an increase in almost all classes of sales in 1930. But in the first quarter of 1931 there was a substantial decline. But the position of that country was relatively favourable and not typical of conditions elsewhere.

When considering the decline in consumers' purchases of durable goods, it should be remembered that a drop in the demand for less durable goods such as foodstuffs, textiles, boots and shoes, etc., represents a real contraction in consumption. On the other hand, even a substantial fall in the number of cars, wireless sets or gramophones purchased represents mainly a decline in the number of new consumers of these goods and may mean a very slight contraction in consumption.

It is natural that, with a contraction of income, economy is normally first effected by not purchasing articles which are expensive and not strictly necessary, and by postponing the

replacement of such articles as can most easily be made to last a little longer. Thus the drop in the demand for luxury articles and for durable goods such as furniture, motor-cars, gramophones, household utensils and appliances has been relatively great. It would appear that the purchases of durable goods have declined more heavily in the United States than elsewhere — *e.g.*, the sales of motor-cars declined by 29 per cent in 1930. The corresponding reductions in the United Kingdom and Italy were 12 per cent and 13 per cent respectively. In France an increase of 9 per cent took place. For this at least two main reasons may be adduced. The instalment system and the practice of using profits from speculation for purposes of consumption, which had inflated demand in the years preceding the depression, have since had the effect of aggravating the contraction in demand.

Statistics of the production of wireless sets are not available, but it is known that the industry was quickly and severely depressed in the United States.

Among countries producing large quantities of foodstuffs and raw materials whose demand for manufactured durable goods has declined considerably, Poland may be mentioned as an example. Imports of clocks and watches were, in 1930, 37 per cent lower than in the preceding year. Imports of musical instruments fell by nearly 17 per cent, books, periodicals, etc., by over 15 per cent, and ready-made clothing by 25 per cent. In Hungary, sales of household utensils, which in 1929 were only 63 per cent of the 1927 figure, fell by a further 25 per cent in 1930 and were still declining in the early months of 1931. The value of imports of musical instruments into Australia which amounted to £218,000 in the second half of 1929 had dropped to £48,000 one year later, and for such articles as jewellery, watches and clocks, stationery, household furnishings, etc., there was a huge decline. This can only partly be explained by reference to the increased impediments to importation. Cinematograph films are one of the very few products for which an increase in imports was recorded.

The changes in consumption discussed above are of course not equivalent to changes in demand. A drop in price may bring about increased consumption even if demand is no more intensive than before. Similarly, the consumption of certain commodities may be maintained at the expense of severe price reductions, while the consumption of other commodities whose prices are kept relatively stable may decline to a much greater extent. This consideration is of the utmost importance, especially in the case of commodities for which demand is relatively elastic.

It is not so important in the case of foodstuffs for which demand is usually relatively inelastic. Even here, however, in cases where finer and more expensive qualities may be substituted for a cheaper and lower grade or *vice versa*, demand may be rather sensitive to price changes. For instance, the increase in the consumption of butter must be largely due to the fact that the drop in its price has made some people reduce their consumption of margarine. It may also be due to the fact that people are used to spending a certain part of their income on food. Hence, a reduction of the food prices in general will tend to make people whose incomes have remained relatively stable turn to higher and more expensive qualities.

House rent represents an important part of the consumer's budget. There is little evidence that the amount spent on this account has been reduced. There has nowhere been any considerable increase in the number of empty flats and houses, and the decline in rents has been appreciable in only a few countries — *e.g.*, the United States of America.

B. Prices, Wages and Profits.

The rapid fall in prices is one of the most important manifestations of the economic crisis and at the same time one of its most significant causes. A sudden decline in commodity prices, unrelated to changes in methods or costs of production, involves a reduction or the entire elimination of profits : business enterprises are closed down or work only on part time ; new investment is discouraged ; men are thrown out of employment ; the demand for commodities is reduced and prices fall still further. A fall in the price of commodities begets a belief in further falls ; prospective buyers withhold their purchases and thus add to the forces tending to depress prices.

A fall in the general level of prices has, in addition, a profound influence on the distribution of income and thus an indirect as well as direct effect on production. There are, in every country, certain classes whose money income is fixed by statute or contract ; when prices fall, these classes receive a larger share of the national dividend — that is, with the same amount of money they are able to purchase more goods and services at the lower prices prevailing. A smaller share is left for those whose income is not fixed and, where wages and salaries are rigid, profits have to bear the brunt of the reduction. For these and other reasons investment is discouraged. The effects of falling prices differ, of course, from industry to industry and from country to country.

Countries and industries where fixed charges, such as interest on public debt and overhead expenses, constitute a large proportion of total expenditure find themselves at a disadvantage compared with those in which a larger proportion of costs are variable. Where a large share of a country's national debt is held abroad, a fall in prices operates even more strongly to its disadvantage. Countries and industries with inflexible wage systems find difficulty in competing with those in which wages are more flexible ; in those in which productivity is increasing, part of the effects of a general fall in the price level is offset by automatic reductions in cost per unit of output.

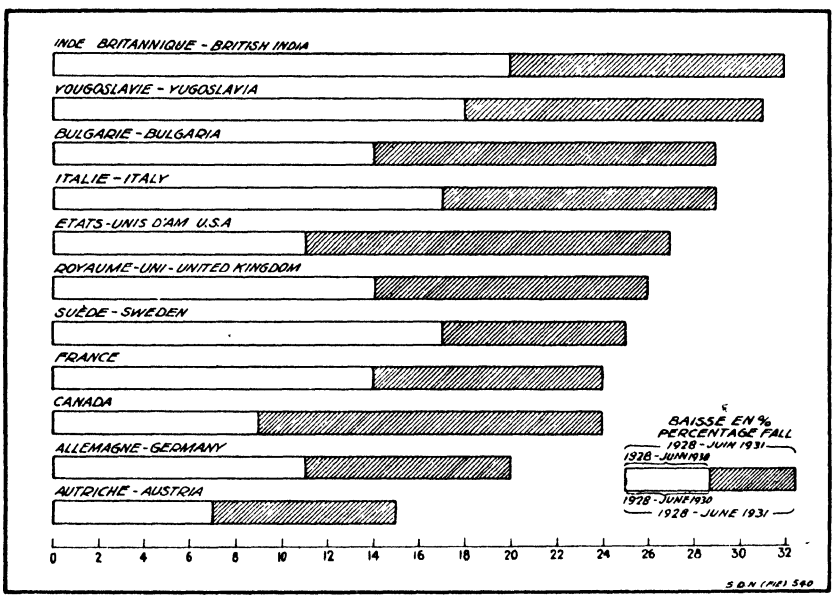
It has been shown in Chapter II D. above that, even before the rapid decline in prices began, there were certain elements of instability in the price situation of different groups of commodities. In particular, stress was laid on the fact that, in many parts of the world, the prices of manufactured goods had risen more since 1913 than those of raw materials ; it can now be seen that the consequent weakness in the financial position of certain classes of primary producers and the excessive productive capacity in manufacturing industry are among the factors which have intensified the severity of the present depression. In spite of the relatively low prices of many agricultural products, total production of this group of commodities (as shown in Chapter II A. above) was also greatly extended. The production of the period 1922-1929 in the case of several vegetable foodstuffs tended to outrun demand. As a result, the general trend of the prices of these commodities was downwards, in spite of several official and non-official attempts to restrict sales.

With the crash of the New York stock market in 1929, a gradual price recession gave place to a large scale liquidation. The demand for new investment in all parts of the world was diminished. Consumers' demand was also to some extent restricted. Enterprises which had just succeeded in keeping going during the upward swing were now liquidated. Stocks could no longer be financed ; consequently, large quantities were thrown on the market at a time when the demand for these goods was restricted — the inevitable result was a rapid decline in prices. Countries producing commodities such as coffee, sugar and certain cereals for which there was a tendency towards over-production suffered first and most severely. But the decline in prices soon spread to practically all world staples not under effective control — this meant that the general level of prices in all countries moved downwards.

The following diagram (Chart 25) shows the percentage decline that has taken place in the general level of wholesale prices in certain countries between 1928 and the middle of 1931. The

Chart 25.

PERCENTAGE FALL IN WHOLESALE PRICES BETWEEN 1928[1] AND JUNE 1931.[2]



[1] Average of the year 1928.
[2] Average of June 1931.

unshaded part of the bar for each country represents the decline up to June 1930 and the complete bar the total decline up to June 1931. The indices for the various countries are constructed on different principles ; no general conclusions can therefore be drawn with regard to the relative severity of the fall in prices, even in countries with similar economic structures. For example, the index for Germany includes some fully manufactured products, which tend to fall less in price during a depression, while that for the United Kingdom includes only crude foodstuffs and industrial raw materials and semi-manufactured goods which tend to fall more.

The price indices that are heavily weighted with raw materials and crude foodstuffs have fallen more than those which include a large proportion of finished products. Within each country, as will be shown in some detail later, the prices of different groups of commodities have moved in different ways ; in Canada, for instance, where the general price decline was 25 per cent between 1928 and June 1931, raw and partly manufactured goods fell by almost 40 per cent (Canadian farm products by over 40 per cent) and fully and chiefly manufactured goods by slightly more than 20 per cent. In most agricultural countries, the general level of wholesale prices at the middle of 1931 was below the pre-war level ; in the majority of the highly industrialised States, it was still some 10 per cent above that figure.

To appreciate the true significance of the price decline, it is necessary to examine not only the general level of wholesale prices but also the prices of particular commodities and groups of commodities on various markets ; marked inequalities in price movements indicate changes in the economic relationships between various groups of producers and various countries which are of primary importance in an analysis of the depression.

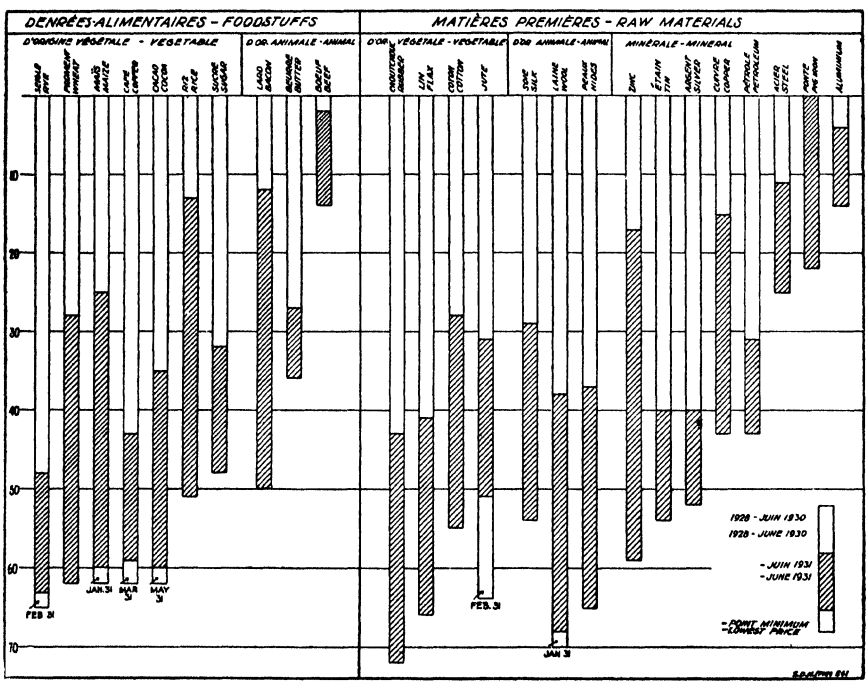
It may be convenient to set out first the changes which have taken place in the world market prices of certain important commodities. In the graph which follows (Chart 26), the percentage decline in the prices of a score of such commodities is shown. The unshaded part of the bar for each commodity represents the percentage decline in the first period of the depression (1928 to June 1930), while this and the shaded part together represent the decline from 1928 to June 1931.

In cases where some recovery had taken place by June 1931 the bar is extended to show the lowest point reached. The month in which the price touched bottom is also indicated.

On world markets, the greatest decline has taken place in the price of organic materials, the supply of which can least easily be regulated. Practically all these goods are non-European staples — crude vegetable foodstuffs on the one hand and

Chart 26.

PERCENTAGE DECLINE IN PRICES OF CERTAIN FOODSTUFFS AND RAW MATERIALS ON WORLD MARKETS BETWEEN 1928[1] AND JUNE 1931.[2]



[1] Average of the year 1928.
[2] Average of June 1931.

textile raw materials on the other. Both rye and wheat stood about 60 per cent below their 1928 level in the middle of 1931 and certain important colonial products fell to the same extent. Of these colonial products, coffee dropped most in price in the first few months of the recession ; when the speculation boom came to an end in the United States in the autumn of 1929, the Brazilian producers were no longer able to secure funds with which to finance their stocks and had to throw them on the world market — in three months the price of coffee fell by 33 per cent. Of the important cereals, only maize fell quickly in price ; that of wheat had declined by only 8 per cent by the end of 1929. In spite of the favourable harvest in the importing countries in 1929, the world crop of wheat in that year was poor and the Federal Farm Board and Canadian wheat pool succeeded for a time in maintaining prices. During 1930, however, the decline continued steadily and was very marked during the first half of 1931.

Had it not been for other factors, it might perhaps have been expected that, on account of the inelastic demand for crude foodstuffs, the prices of this group would not be greatly affected by an industrial depression. When in the past severe depression coincided with short crops, as in 1908, the price of the latter rose in spite of the general decline. When the present industrial depression came, however, the stocks of wheat and coffee were already growing excessive, and the inability to finance them, combined with the inelasticity of supply, was sufficient to cause great fluctuations in price in spite of a relatively small change in consumers' demand.

Animal foodstuffs have fallen considerably less in price than vegetable foodstuffs, although in the second year of the depression price declines in meats have been more frequent and more serious. For the greater fall in 1930-31 the mild winter of 1929-30 may be held partly responsible ; further, the very low prices of fodder required for stock-raising and the low prices of cereals stimulated meat production in certain parts of the world. The amount of animal foodstuffs coming on the market was thus increased while at the same time there was no increase in the demand for these relatively expensive foodstuffs. In some cases the fall in the price of cheaper substitutes has been considerably less than that for animal foodstuffs ; for example, margarine has dropped much less than butter. It is a noteworthy fact, however, that for many commodities, such as cotton, coffee and cocoa, the better-quality grades have fallen less in price than inferior grades. This is probably partly due to the fact that the better grades are largely consumed by those classes whose expenditure on such commodities has been least affected.

In the case of organic industrial raw materials, the supply cannot readily be adapted to the demand, while at the same time demand is very sensitive to changes in business conditions. For some articles in this group, such as rubber, the supply over short periods is practically fixed. Rubber has fallen more in price than any other commodity shown in the chart ; in the middle of 1931, its price stood 72 per cent below the 1928 level, the lowest point ever recorded up to that time. In 1910 rubber sold in London for 8*s.* 9*d.* a pound ; in June 1931 for 3*d.* a pound.

In general, the decline in the price of minerals and metals has been much less than that in vegetable foodstuffs and vegetable and animal industrial raw materials. The output of the former group can be more readily adapted to the changed conditions of demand and for many products producers by agreements have succeeded in restricting output and maintaining prices. Demand for the articles in this group, chiefly producers' goods are affected not so much by price as by changes in general business conditions. Non-ferrous metals have fallen more than iron and steel products or coal, and several of them — such as copper, zinc and tin — are now lower in price than before the war. The production of copper and tin was greater in 1929 than in any previous year. The price of copper continued to rise throughout 1929, but, with the breakdown of the producers' association in the early months of 1930, copper prices fell very rapidly ; prices in the middle of 1931 were about 40 per cent below the average for 1929. The fall in the price of silver, which has reached the lowest point recorded, forms a separate chapter in the history of the depression and is considered in detail in another section.

No world-market price for coal is shown on the chart because this commodity, though traded in to a considerable extent, is very heavy in proportion to its value and its price is largely determined regionally. On certain export markets coal has fallen in price by some 15 per cent, but in most markets it has remained remarkably steady and in some has even increased since 1928. In considering the relatively slight drop in coal prices, as compared both with other commodities and with heavy price declines recorded during previous periods of economic depression, it should be borne in mind that prices had fallen steadily since 1922.

In the case of iron and steel, centralised control and producers' agreements have resulted in production being greatly restricted and prices maintained ; in addition, many long-term orders given during the upward swing of the business cycle and extending into 1930 have helped to keep up prices in this industry. These

commodities, like coal, are expensive to transport ; their prices, too, are largely regional.

Thus prices of staple commodities on world markets fell between 1928 and the middle of 1931 50-60 per cent for vegetable foodstuffs, some 25-30 per cent for animal foodstuffs, 50-70 per cent for textiles and 25-50 per cent for minerals and metals. On many domestic markets the decline was much less severe, particularly in the case of vegetable foodstuffs and minerals. In the following table are set out the percentage declines in the price of commodities in these groups on some internal markets between the middle of 1929 and the middle of 1931.

Table XIV. — Percentage Decline (—) or Rise (+) in Prices of Various Groups of Commodities on Domestic Markets, June 1929-June 1931.

Vegetable foodstuffs.		Metals and Minerals.	
Czechoslovakia	— 9	Belgium (fuels)	— 9
France	+ 4	Great Britain (iron and steel	—10
Switzerland	— 7	Germany (iron and steel)	— 9

It is obvious that the severity of the present decline in prices has been much greater on world markets than on domestic markets. Commodities entering into international trade are generally the most sensitive in price — to mention only one reason for this, they are traded in large quantities on organised exchanges by buyers and sellers who are specialists and fully cognisant of conditions of supply and demand. Regional prices are more directly influenced by Customs duties, price-fixing agreements, etc. They include certain elements of cost, such as taxes, wages, distribution, etc., which are not subject to international competition and do not vary in the same way as raw material prices. It has already been observed that the prices of certain commodities, such as coal and iron, which enter to a considerable extent into international trade, are, on account of relatively high transport costs, mainly determined locally. Iron, for instance, fell in price on world markets at the end of 1928, in Germany a year later and in Great Britain six months after that.

In order to illustrate further the marked differences in the price movements of international and domestic goods during the depression, relevant indices for France and Germany are set out in the following table :

Table XV. — Price Indices of International and Domestic Goods.
(1913 = 100.)

	France			Germany	
	International	Domestic		International	Domestic
January 1930 .	521	606	April 1929 .	130	135
December 1930 .	377	565	January 1931 .	83	122
June 1931 .	366	539	April 1931 .	79	118
Percentage decline from Jan. 1930 to June 1931	30	11	Percentage decline from April 1929 to April 1931 .	39	13

In these countries the decline in the prices of world market goods has been two to three times as great as the fall in the prices of domestic commodities. It will be observed, however, that, during the first six months of this year, the prices of domestic products have kept pace more evenly with those of international goods in both countries ; in France, indeed, the former have declined more rapidly. The indices do not of course give an exact measure of the difference between domestic and international prices for the same commodities ; the discrepancy between the movements of the two indices is none the less striking and is common to other countries such as Czechoslovakia, Denmark and Italy, for which such data are available. In Denmark, for example, exports fell much more rapidly in price than goods produced for the home market. Between the beginning of 1930 and April 1931, the decline in the former was over 20 per cent as compared with 10 per cent for the latter. The same is true of Italy. Between May 1929 and May 1931, according to the Bachi index, goods produced and consumed in the country fell by 27 per cent in price while goods exported fell by 34 per cent.

These differences cannot be explained by a failure of transport costs to keep pace with the declining level of international commodity prices. The most important influences contributing to the divergencies have been three in number — first, the influence of tariffs ; second, the success of cartels and producers' associations in maintaining the domestic prices of certain classes of

products ; and third, the fact that regional products consist partly of manufactured goods the prices of which have been relatively well maintained during the depression.

When the prices of crude foodstuffs, in particular, cereals, began to decline rapidly in 1929, certain States, wishing to protect domestic agriculture, raised their tariffs on foreign grains and passed special legislation requiring millers to mix a fixed proportion of native cereals with those of foreign growth. The measures taken by various States have been touched upon in the previous section — here it is sufficient to note that, by excluding foreign and compulsorily increasing the demand for domestic wheat, they succeeded in their object of raising the price of domestic wheat. The following graph (Chart 27) shows the relationship between the world-market price of wheat (Hard-winter 2 in Rotterdam) and the domestic price in four of the countries where this policy has been most conspicuously successful.

Protective tariffs were also imposed (or raised) in some countries on other cereals, such as rye and maize, and on certain industrial materials. Some States have sought to raise revenue by putting higher tariffs on colonial products, such as coffee and tea, with the result again that domestic prices have diverged widely from world prices.

A second important influence in causing home-market prices to move differently from world prices is the fact that in many countries a large proportion of the former are controlled, in part at any rate, by cartels or producers' associations. According to a recent estimate, the prices of half the industrial raw materials or semi-manufactured goods (measured by the numbers employed in producing them) used in Germany are thus controlled. For other countries the proportion is not known, but there is no doubt that it is considerable.

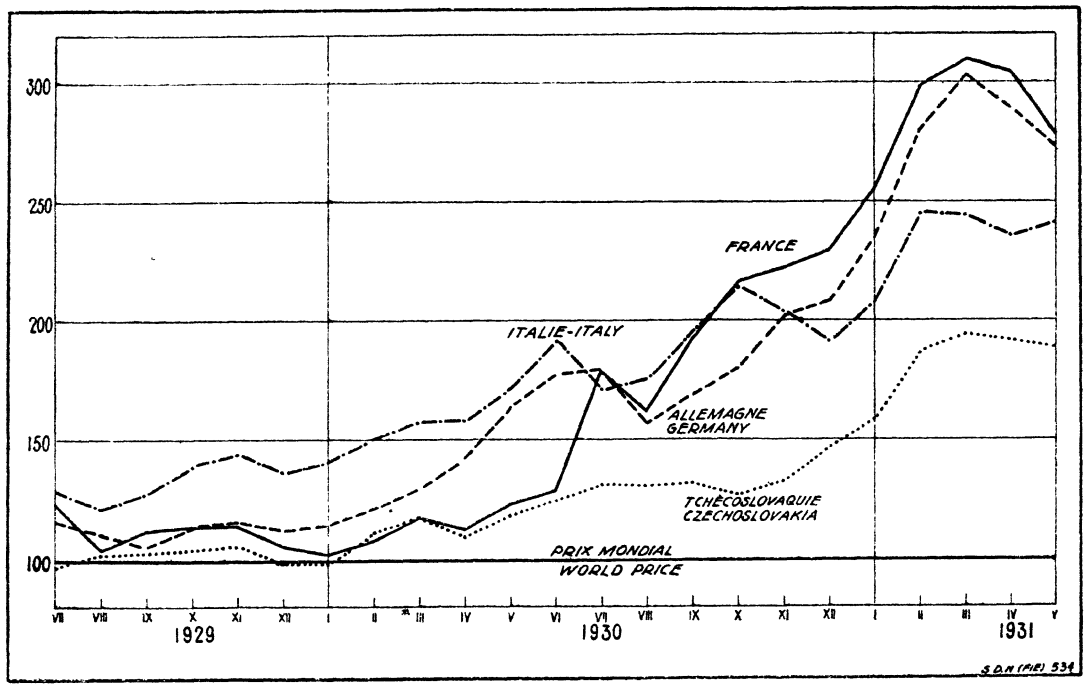
In the following table are set out the price movements of " cartellised " and " non-cartellised " industrial raw materials in Germany [1] and recently compiled indices of " sensitive " and " stabilised " prices in Belgium. [2] The two groups are not comparable because the Belgian index for " stabilised " prices includes those of certain goods which are not subject to marked price fluctuation, but are none the less not controlled by cartels.

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[1] Indices of Institut für Konjunkturforschung, Berlin.
[2] Indices published by Institut des Sciences économiques, Louvain.

Chart 21

THE RELATION BETWEEN THE PRICE OF WHEAT ON CERTAIN NATIONAL MARKETS AND THE WORLD PRICE, 1929-1931. [1]



[1] Home-market price of wheat as percentage of the price of wheat in Rotterdam.

Table XVI. — Price Indices of Cartellised and Non-cartellised Goods, etc.

	Germany (1926 = 100)		Belgium (IV, 1914 = 100)	
	Cartellised	Non-cartellised	Stabilised	Sensitive
December 1928	104	103	811	898
July 1930	103	79	871	680
December 1930	95	—	823	583
April 1931	94	—	—	—

The " free " prices in both countries were declining in 1928, while the " controlled prices " rose in that year and showed little change until the first half of 1930. During the second year of the depression, the monopolistic control of prices as reflected in the above indices lost some of its effect : in the second half of 1930, cartellised prices in Germany fell by 8 per cent, while stabilised prices in Belgium fell by 6 per cent. Certain cartels succumbed to foreign competition, while others broke down on account of their inability to finance stocks.

A particularly striking aspect of price movements during the depression has been the much greater fall in the prices of raw materials in general than in those of manufactured goods. This is not the place to examine in detail the reasons for this phenomenon, which appears to be characteristic of all periods of economic depression. The reactions of manufacturers and primary producers, in particular agriculturists, to falling prices are of an essentially different character ; the former restrict output, while the latter often attempt to expand production. The existence of stocks of raw materials in the hands of manufacturers and merchants cause a more rapid falling off in the demand for these goods than in the demand for finished products at the beginning of a depression. For these and other reasons, raw material prices drop more than prices of manufactured goods.

In the following table is set out the percentage fall in the wholesale price indices of raw material and manufactured goods in six countries for which such indices are available ; in each case, the fall is measured from June 1929 to June 1931, or the last two-year period for which indices have been published :

Table XVII. — Percentage Fall in Wholesale Price Indices of Raw Materials and Manufactured Goods in Certain Countries, June 1929-June 1931.

	Raw Materials	Manufactured Goods
Canada	33	19
Denmark	27	22
Germany	22	13
Italy [1]	34	12
Sweden	20	23
U. S. A. [2]	30	20

The peculiar position in Sweden is accounted for by the fact that the index for raw materials is heavily weighted by iron-ore, for which long-term orders at fixed prices were given before the turn of the business cycle ; wheat, the domestic price of which has been maintained by special regulations giving the millers' organisation the sole right to import foreign wheat and requiring them to purchase that of domestic growth at fixed minimum prices, and such regional producers' goods as bricks and cement, which are also in large measure subject to monopolistic control. In most other countries the raw-material price indices have fallen about half as much again as those for manufactured goods. But, in the first six months of 1931, the rate of decline of manufactured goods increased in some countries and in certain cases indeed exceeded that of raw materials. In Canada, for instance, fully and chiefly manufactured goods fell by some 10 per cent in the first half of this year, as compared with an 8 per cent decline in the prices of raw materials and a 5 per cent decline in those of manufactured goods in the corresponding period of 1930. In Germany, the fall in the price of finished goods in the first half of 1931 was about 5 per cent, as compared with 3 per cent in the first half of 1930.

Evidence of a similar character is found in special indices of raw and manufactured goods divided according to origin and use which have recently been made available by certain national statistical offices. These indices have been published in the League of Nations *Memorandum on Production and Trade*, 1925-1930/31. An examination of the recent price movements of

[1] Bachi index.
[2] National Bureau of Economic Research Index, April 1929-April 1931.

particular raw materials and articles manufactured from them shows that in all cases raw materials have been the more seriously affected and that, with very few exceptions, the higher a commodity stands in the stage of manufacture the less has it fallen in price.

A comparison between the price movements of agricultural and industrial products shows still more striking results.

In the following table is set out the percentage fall in the agricultural price indices of certain countries between 1929 and June 1931. The construction of the indices differs greatly, of course, from country to country ; in most cases, however, the importance of any commodity in the index is proportionate to its importance in the total value of agricultural production of the country concerned. It will be seen that the fall has been greatest in the overseas cereal and textile-producing countries, which are dependent on their export trade, and least in meat and dairy-producing countries, such as England, and countries which have taken special measures to protect domestic farmers, such as Germany.

Table XVIII. — Percentage Fall in Agricultural Price Indices of Certain Countries, June 1929-June 1931.

Canada	44	Italy	32
Argentine	39	Finland	29
New Zealand	38	Germany	21
U.S.A.	33	England	15

In all countries, industrial products have fallen much less in price in the period covered by the table. In Canada, for instance, manufactured goods dropped by 20 per cent ; in New Zealand the general price-index dropped by some 10 per cent. In the United States, the 33 per cent fall in agricultural prices may be compared with a 25 per cent fall in the price of non-agricultural commodities and a drop of less than 20 per cent in the prices of articles purchased by farmers.

The relationship between the prices of raw materials and industrial goods is obviously of the greatest importance, both for international trade, which is largely based on the exchange of these two commodity groups, and for the domestic trade of countries with a mixed agricultural and industrial economy, such as the United States of America. In the table which follows, the import and export price indices of certain industrialised and raw-material-producing countries in the years 1929 and 1930 are shown.

Table XIX. — Import and Export Gold Price Indices of Certain Countries, 1929 and 1930.

(1913 = 100.)

	1929		1930		Ratio of Export to Import Prices 1930
	Imports	Exports	Imports	Exports	
France	103	98	88	97	110
Germany	126	132	109	124	114
United Kingdom	134	159	117	152	130
Dutch East Indies	155	123	146	88	60
Italy	122	111	105	93	89
New Zealand	136	148	135	116	86

In 1930, the prices of the imports of the industrialised countries fell much more than those of their exports ; and conversely with the raw-material-producing countries. The changes in the barter terms of trade are strikingly illustrated in the last column of the table : countries producing raw materials were able to buy a much smaller number of units of manufactured goods for each 100 units of their exports, while those exporting manufactured goods received a considerably larger number of units of raw materials in return. The effects of these changes in price relationships on the character and extent of foreign trade during the depression are analysed in some detail in the following section.

Wholesale and Retail Prices.

Perhaps no price relationships have given rise to so much discussion during the present depression as those between wholesale and retail prices. It is frequently maintained that the fact that retail prices have fallen much less than wholesale prices is a factor of primary importance in obstructing the flow of goods from producers to consumers and that, if retail prices were reduced to something like their former position in relation to wholesale prices, consumers, whose incomes have been considerably reduced on account of the fall in wholesale prices (through losses on investments, unemployment, etc.) would be able to purchase more goods and thus to some extent counteract the depressing tendencies.

In such discussions, a comparison is generally made between the wholesale-price and cost-of-living indices of the country

concerned. The discrepancy between the movements of these two indices in most countries is indeed striking. In Switzerland and Sweden, for example, the cost-of-living index fell by only 7 per cent in the two years ending June 1931, while the wholesale-price index fell by about 20 per cent. In the United Kingdom, Denmark and Italy, the cost-of-living index fell by about 10 per cent, while wholesale prices dropped some 25 per cent. The discrepancy between the movements of the two indices is smaller in the European States exporting agricultural products, though even there it exists — in Hungary, for instance, the cost-of-living index dropped by 17 per cent as compared with 25 per cent for wholesale prices, and in Latvia 21 per cent as compared with 27 per cent.

These comparisons, however, are made between indices the composition of which differs so greatly that they are in fact incomparable. The ordinary wholesale price indices are in most cases composed of crude foodstuffs and raw materials, while the cost-of-living indices include only products ready for consumption. It has already been seen that the price movements of these two groups during the depression have been widely different. Moreover, the cost-of-living indices generally include rent.

If the comparison is made between wholesale and retail prices of the same or a similar group of commodities, then the margin between the two indices becomes much narrower. In the United States, for instance, wholesale prices of foodstuffs fell by 26 per cent between the middle of 1929 and the middle of 1931, while retail prices fell by 24 per cent ; in Sweden, wholesale prices of vegetable and animal foodstuffs fell by 17 and 23 per cent respectively, while retail prices of foodstuffs fell by 16 per cent. In the agricultural States of South-Eastern Europe, which have a net export surplus of raw foodstuffs, retail foodstuff prices followed wholesale prices even more closely. The difference in the rate of decline of wholesale and retail prices is much greater in the case of clothing. Retail clothing prices fell but little during the first year of the depression, and except in a few countries — for instance, Italy and Germany, which took special measures to reduce retail prices — they rarely fell by more than 10 per cent in the second year (June 1930-31).

The relatively small increase in retailers' margins on foodstuffs is explained by the fact that the inventory turnover of this class of products is rapid ; only small stocks are carried and a fall in wholesale prices is usually closely followed by a corresponding drop in retail prices. Stocks of clothing carried by retailers are larger and margins are accordingly wider during a period of falling prices. The regional character of retail trade often enables the retailer to fix his prices with reference to those paid by him

some time previously and thus escape part at least of the inventory loss. The costs of retailing (rent, services, etc.) do not fluctuate nearly so widely as the costs of the goods handled and it is obvious that, when sales fall off, prices — if they are to cover costs — must include a wider margin per unit sold ; large margins in such a case do not necessarily imply large profits.

Wages.

The reductions in the rates of wages paid to industrial workers have in general not been great ; in most countries and in the majority of occupational groups, they have not kept pace with the decline in the cost of living. In the following table are set out the movements of real industrial wage rates in the years 1928, 1929 and 1930 in certain countries for which information is available.

Table XX. — *Indices of Real Wage Rates in Industry* 1928-1930.
Pre-War = 100.

	1928	1929	1930
Czechoslovakia . .	116	119	125
Germany	107	110	116
Great Britain . .	103-106	106-109	110-113
Sweden [1]	132	138	146
U. S. A. [2]	135	142	135

These indices are not comparable from country to country, but their general trend, except in the United States, was similar : in all cases wages, with this one exception, either rose in 1930 or remained stationary while the cost of living was falling. Wage rates per hour or per week are of course not a completely satisfactory measure of labour cost. In the first place, the wage-rates used for most countries are minimum rates ; in many cases, actual wage rates paid in 1928-29 were considerably higher than these minima, and hence the real reductions since those years have been in some countries and for some industries different from those indicated. Further, under the fear of unemployment, the efficiency of workers may have increased so that real cost per unit of output may not have increased so rapidly as money rates paid. It will be noticed that in Sweden even the real daily earnings of industrial workers rose in 1930 ; as these include some short-time, daily rates must have risen even more. The real weekly earnings of those engaged in manufacturing industry in the United States fell throughout 1930 ; hourly earnings rose

[1] Daily earnings.
[2] Weekly earnings.

somewhat. None of the indices shown above make any allowance for unemployment and therefore yield no evidence regarding the purchasing power of the industrial wage-earners as a whole. The index of factory pay-rolls published by the United States dropped by 19 per cent in 1930 in comparison with 1929.

The movement of wages has of course varied from industry to industry. In the United States, the greatest reductions since 1929 have taken place in the lumber and millwork, boot-and-shoe and bituminous coal industries. Of the manufacturers reporting to the Bureau of Labor Statistics, 5 per cent made wage cuts in the first ten months of 1930, as compared with 82 per cent in the first ten months of 1921. In Germany, average hourly rates of both skilled and unskilled workers rose steadily in 1929 and 1930. Wage rates in the building industry reached their highest point in April 1930. In several industries a 6 per cent reduction in tariff rates took place in the early months of this year ; reductions were greater in the textile industries and less in municipal services, such as gas, water and electricity. The salaries of State officials were also reduced. Similar action was taken in Italy, where the average hourly earnings of all groups reached its highest point in September. Between November 1929 and the beginning of this year, the average hourly money earnings of those engaged in public industries declined by 17 per cent ; in the same period the cost of living fell by slightly more than 10 per cent. In Great Britain, reductions in money rates of pay in 1930 affected mainly builders, bakers, furniture-makers and road transport workers. In Sweden and the Netherlands, the wages of workers engaged in the home-market industries have remained steady or increased somewhat throughout the depression, while those of workers engaged in export trades have tended downwards. For other countries there is not sufficient evidence to allow a general statement with regard to differences in the wage movements of these two groups to be made, but such indications as are available suggest that wage cuts have been somewhat greater in export than in home-market industries ; in the building industry, in particular, and in industries producing foodstuffs and beverages, wages would appear to have been maintained at a relatively high level in most countries.

In Canada and the United States, agricultural wages fell by some 10 per cent in 1930 and continued to fall in 1931 ; in the second quarter of the latter year, daily wages for this group in the United States were 23 per cent lower than in the corresponding quarter of 1929. In certain other countries, the money rates paid to agricultural workers did not fall, but the standard of living of these workers was affected by a deterioration in the quality of board provided, etc.

Profits.

The wide percentage margin between raw material and finished product prices during a period of depression does not result in high profits — heavy losses are sustained through depreciation of inventories and when the volume of output diminishes, much the same overhead charges must be spread over a smaller number of units, so that cost per unit rises.

Profit statistics are available for relatively few business concerns and for only a few countries. In the United States of America, the profits of 1,900 corporations reporting to the National City Bank of New York were 40 per cent less in 1930 than in the boom year 1929, and 28 per cent less than in 1928. The net return on the capital invested in these concerns dropped from 11.4 per cent in the second quarter of 1930 to 4.1 per cent in the fourth quarter. Profits varied greatly from group to group. They were best maintained for purely home industries such as public utilities and amusements and recreations ; the tobacco industry also increased its profits slightly. The greatest decline took place in the rubber industry, where profits in 1930 were 90-100 per cent lower than in 1929, in the metal and pig-iron industries (70 per cent lower), petroleum, railways and automobiles (50-60 per cent) and banks and insurance companies (40-50 per cent). Dividend payments reached their highest level in the first half of 1930 ; since then they have been fewer and smaller. In the first quarter of 1931, profits amounted to 5.3 per cent of capital invested ; the increase over the last quarter of 1930 is evidently due to the writing-off of large amounts of capital through business failures. For certain industries, such as the petroleum, textile and non-ferrous metals, profits in the first quarter of 1931 were nil, while those of the iron-and-steel industry were reduced by 85 per cent and automobile by 50 per cent since the corresponding quarter of 1930.

In Germany, average profits by enterprise were 25 per cent lower in 1929-30 than in 1928-29.

The profit statistics available for Great Britain are very incomplete and cannot be regarded as representative of industry in general. According to such data as are available, profits dropped only slightly in 1930 ; they were, however, not high in 1929. In the first half of 1931, profits were 15 per cent lower than in the corresponding period of 1930. As in the United States the greatest losses have been suffered by the rubber industry — their profits in the period June 1930-31 were over 80 per cent lower than in June 1929-30. The decline was particularly heavy in the textile industries (57 per cent) and also in tea and financial land investment (28 per cent), motors and cycles (13 per cent) and iron, steel and coal (18 per cent). As in the United States, purely regional businesses such as public utilities and tramways increased their profits slightly.

C. Financial Conditions.

Although the European markets did not share in the American Stock Exchange boom in 1929 and, indeed, except for a few months in the early summer suffered from a decline in the prices of shares, all participated in the autumn slump and their further development corresponded to that of New York. Everywhere stock prices declined throughout 1930 and in 1931. In a majority of markets a temporary improvement — in some cases, indeed, a substantial improvement — was experienced in the beginning of the present year, as in 1930. In the decline which followed, however, new low records were reached.

The violence of the drop from the highest quotations in recent years to the average quotations in June 1931 is shown in the following table :

Table XXI. — Percentage Reduction in Prices of Industrial Shares.

							Per cent
Germany	From	April	1927	to	June	1931	61.7
Netherlands . . .	»	March	1929	»	»	»	60.0
U. S. A..	»	September	1929	»	»	»	59.7
France	»	February	1929	»	»	»	55.7
United Kingdom .	»	January	1929	»	»	»	45.0
Sweden	»	July	1929	»	»	»	30.6
Switzerland . . .	»	September	1928	»	»	»	29.3

The market value of all stocks quoted on the New York Stock Exchange, which had risen from $38,376 million in January 1927 to $67,478 million in January 1929 and $89,668 million in September 1929, fell to $63,589 million in December 1929 and to $48,470 million in May 1931.

According to statistics of the New York Stock Exchange, the velocity of turnover of shares (ratio of monthly sales of stocks to monthly average number of listed shares) fell from about 10 in summer 1929 (it rose as high as 13 during the panic in October 1929) to 4 in April 1931. Similarly, the volume of credit engaged in market operations diminished and brokers' loans reported by the New York Stock Exchange were reduced from $8,549 million at the beginning of October 1929 to $1,651 million at the beginning of May 1931. At the first date brokers'

loans had amounted to nearly 10 per cent of the market value of all listed shares ; by the latter date they had fallen to less than 3 ½ per cent. New issues also declined heavily as the following table shows :

*Table XXII. — Issues of Shares of Joint Stock Companies.** $(000,000's omitted).

	France [1]	Germany [2]	United Kingdom [3]	U. S. A. [4]
1928	255	321	759	4,961
1929	333	235	714	8,035
1930	148	132	194	1,880

For the decline in new shares, the depression of stock markets and the generally unfavourable conditions of business are responsible. Issues of companies not directly engaged in production or trade, such as banks, insurance companies, etc., which had profited greatly while the boom had lasted, were affected particularly heavily. Thus, for example, in the United States the " non-productive issues " of shares, [5] which include banks, investment trusts and certain holding companies, dropped 89 per cent in the course of 1930 while the total of new shares offered declined only 77 per cent.

As might be expected, with the rapid contraction of trade in shares in the months following the break, transactions in bonds increased and the prices of fixed-interest-bearing securities rose, especially on the leading markets. But trading in bonds soon grew less active, and in New York the volume of sales of bonds has actually remained considerably below that of 1929 since the spring of 1930. Similarly, the rise in bond prices was most pronounced at the end of 1929 and in the first few months of 1930 ; in the spring of the latter year the upward tendency in prices was to a large extent arrested. Switzerland

* Sources :
[1] *Statistique générale de la France.*
[2] Institut fur Konjunkturforschung.
[3] *Economist,* March 28th, 1931.
[4] *Standard Statistics.*

[5] Classification of the *Standard Statistics.*

was an exception to the rule ; in this country the biggest increase in bond prices took place after June 1930.

Table XXIII. — Prices of Bonds.[1]

Average	France 35 bonds combined	Germany 8 % Gold mortgage bonds	Italy Govt. bonds Bachi	Netherlands. Fixed security values.	Switzerland 12 Swiss bonds (Confédération & C. F. F.)	U. K. Fixed security values index number	U. S. A. 40 bonds combined
	1913 = 100	per cent of par	1913 = 100		1906-25 = 100	1921 = 100	per cent of par
1928 . .	81	97.24	69.2	—	93.48	112.33	84.06
1929 . .	85	94.44	66.9	—	94.80	110.15	79.21
1930 . .	95.8	97.30	69.3	98.07	107.76	111.75	81.25
1931 I	95.7	99.03	71.07	98.98	117.24	112.8	81.98
II	97.1	99.41	72.38	98.52	116.93	109.7	82.06
III	97.9	99.82	72.1	98.41	115.40	111.6	82.29
IV	99.0	100.17	72.6	97.76	116.93	111.3	80.86
V	98.4	99.84	71.2	98.13	116.62	110.8	80.48
VI	98.8	97.57	71.9	98.60	115.40	111.1	79.07

The bond markets were very sensitive and the various classes of securities fared very differently. On the American markets railroad debentures were little in demand because of the low earnings of railroad companies. The discrepancy between the price of gilt-edged and other bonds was more pronounced than in previous years. While securities of the highest grade increased considerably in price, second-grade bonds, to which a greater degree of risk was attached found few purchasers in spite of the high yield which they offered. Also, political uncertainties and bank failures in some countries had a disquieting effect.

The value of new bond issues on the three principal markets is shown in the followings table :

[1] Sources :
Statistique générale de la France.
Institut für Konjunkturforschung.
Prof. Bachi.
Rotterdamsche Bankvereiniging.
Banque Nationale Suisse.
Bankers' Magazine.
Dow Jones and Co.

Table XXIV. — Bond Issues. [1]
$ (000,000's).

	U. S. A.	U.K.	France [2]
1928	6,888	1,037	157
1929	3,375	672	266
1930	4,680	1,110	686

In the United States and the United Kingdom the new issues of bonds in 1930 did not reach the level of 1928 and preceding years, although some increase on the figures for 1929, in which bond issues had been exceptionally low, was recorded. As the depression advanced, the market became more and more loath to accept new issues, and in the first quarter of 1931 the issues recorded in England and the United States were substantially lower than in the corresponding period of 1930.

A large proportion of the new bond issues in 1930 were on Government account, and the issue of the Young Loan for more than $300 million was one of the most important events of the year on the world money markets. The Government borrowing was largely due to the fact that public expenditure has proved to be highly inelastic and not easy to reduce in the face of a contracting revenue — resulting, for example, from diminished returns of taxes, Customs duties, diminished earnings of State railroads, domains and public-utility services. In some countries, indeed, public expenditure has increased on account of unemployment relief, etc. To increase taxation presented obvious and serious difficulties, and in many countries deficits were covered by loans.

A striking feature of the long-term capital market in the period under consideration was that long-term rates failed to decline to any substantial extent (compare the table on Bond Yields in Chapter V B). In Chapter I C have been indicated the main reasons for this phenomenon, such as the fears of capitalists regarding economic and political conditions ; the unwillingness of capitalists to accept substantial reductions in the rates of interest they had been accustomed to receive in post-war years and their anxiety to have liquid resources available in case business should revive. A certain downward trend in the long-term rates was, indeed, apparent, but it was

[1] Sources : *Standard Statistics.*
The Economist.
Statistique générale de la France.

[2] Excluding issues of large railway companies (1928 : $146 million ; 1929 : 166 ; 1930 : 201).

neither strong nor general. The trend in the main creditor countries was very different from that in certain important debtor countries. Although the following figures are not at all strictly comparable, they afford some idea of the extent of this discrepancy. During the latter part of 1930, the average yield of Government and high-grade bonds in eight creditor countries was 5 per cent or less and showed a tendency to fall, while in seven debtor countries the yield of similar bonds was between 8 and 13 per cent and showed a tendency to rise. [1]

The decline in short-term rates, on the other hand, was almost universal and in many cases substantial. A considerable discrepancy between the price of long- and short-term capital accordingly resulted. This may be illustrated by the following data showing averages of bond yields and of market discount rates in three markets during the first half of 1928 and the second half of 1930. The discount rates represent a somewhat lower interest rate than that actually paid by the borrower (the discount being deducted by the lender from the face value of the bill) ; they have therefore been increased to correspond with the latter rate.

Table XXV. — Comparison of Long- and Short-Term Interest Rates.

	1928 Jan.-June per cent	1930 July-Dec. per cent
United Kingdom		
Yield of 2½% consols	4.47	4.42
Minimum market discount rate (adjusted)	4.06	2.12
Margin	*0.41*	*2.30*
United States :		
Yield of railway bonds	4.18	4.30
Minimum rate of bankers' acceptances (adjusted)	3.63	1.91
Margin	*0.55*	*2.39*
Switzerland :		
Yield of 3½% railway bonds	4.46	3.93
Minimum market discount rate (adjusted)	3.23	1.40
Margin	*1.23*	*2.52*

[1] See table published in the "*Memorandum on International Trade and Balances of Payments*, 1927-1929 ", Vol. II.

The fact that long-term rates fell relatively little explains why no considerable conversion of short-term into long-term debts has taken place. Individuals and governments wishing to borrow on either foreign or domestic markets were obliged to cover a large proportion of their capital requirements by short-term loans.

Events in the short-term capital market may be studied in the light of movements of market rates of discount shown in Table XXVI and in the graph given in Chapter IV C representing rates of private discount and average rates for New York call loans.

Table XXVI. — Market Rates of Discount and Call Money.[1]
(Monthly averages.)

	New York		London	Paris	Berlin	Zurich
	Comm. paper	Call money[2]				
1929 October. . .	6.25	6.43	6.13	3.53	7.28	3.38
December . .	5.03	4.83	4.75	3.48	6.98	3.15
1930 June	3.55	2.62	2.31	2.06	3.58	2.06
September. .	3.0	2.19	2.06	2.0	3.30	1.50
December . .	2.88	2.23	2.31	2.06	4.83	1.18
1931 March . . .	2.52	1.57	2.59	1.69	4.76	0.99
June	2.0	1.45[3]	2.09	1.06	6.09	1.13

Although the rates quoted are not entirely representative, they show the tendency of the markets. Rates declined most rapidly immediately after the break in the stock markets, and during the first half of 1930. Call loans were especially cheap ; while in July 1929 the rate for such loans in New York averaged more than 9 per cent (renewal rates) and occasionally rose as high as 15 or 20 per cent, it had fallen to less than 5 per cent

[1] Source : *League of Nations Monthly Bulletin of Statistics* and *Federal Reserve Bulletin*.
[2] Renewals.
[3] May figures.

in December 1929, and since January 1931 has fluctuated around 1 ½ per cent.

The difference in the conditions of the various markets must again be emphasised. The intensity of the decline in market rates varied greatly from country to country. In one group of countries cheap-money conditions prevailed; in another, although rates were lower than during the boom years, they were still comparatively high. The agricultural countries of Eastern Europe belonged to this latter group, together with some non-European countries producing raw materials, to the unfavourable financial position of which reference has already been made. Conditions in Germany after September 1930 brought about a considerable increase in the rates in this country.

The fall of the open market rates went hand in hand with a progressive reduction of discount rates and did not stop before June 1931. (See Chart 28.)

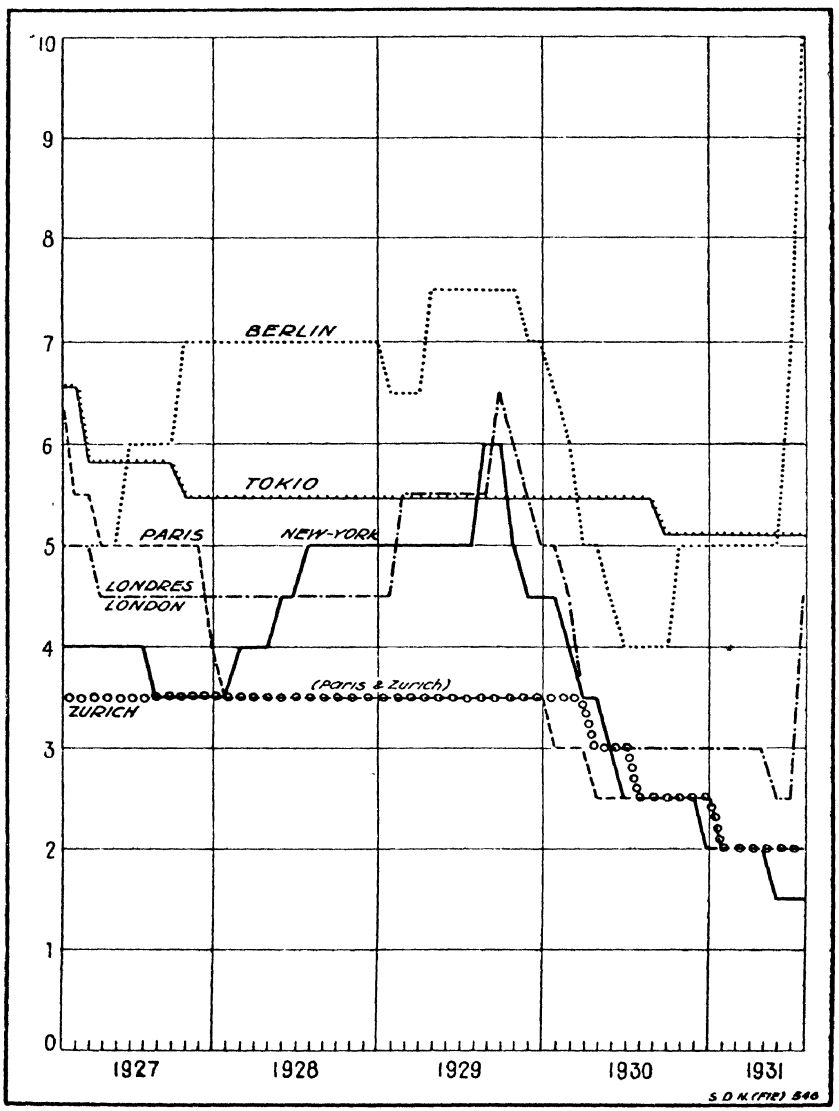
In London, a more normal relation between the bank rate and the market rate was re-established and the margin, which was very narrow in 1927, 1928 and 1929, was again substantial in 1930 and the first quarter of 1931. Nevertheless the money rates in London were higher than in Paris and New York, as the Bank of England from considerations of external banking policy maintained the discount rate at a level appreciably higher than in those centres.

A general contraction in the volume of bank credit might have been expected in view of the fall in the price level and the decline in business activity. The actual reduction in bank credit has, however, varied widely. Central bank credit declined, except in France and a few other countries. In the field of commercial banking, certain kinds of credit have been restricted more than others and different countries have been variously affected. (See Chart 29.)

In the United States, there was an increase in the figures for advances on securities and security holdings immediately after the market break, when the New York banks had to step in and themselves replace the loans to brokers called in by private banks, individuals, corporations and foreign bankers. They were subsequently able to withdraw this temporary help; security loans, nevertheless, tended to rise until the summer of 1930, since when they have declined steadily. The figure for loans outstanding diminished considerably (the drop was over 12 per cent between October 1929 and March 1931 with all member-banks in the United States), while holdings of securities rose about 14 per cent, largely on account of the lack other uses for funds.

Chart 28.

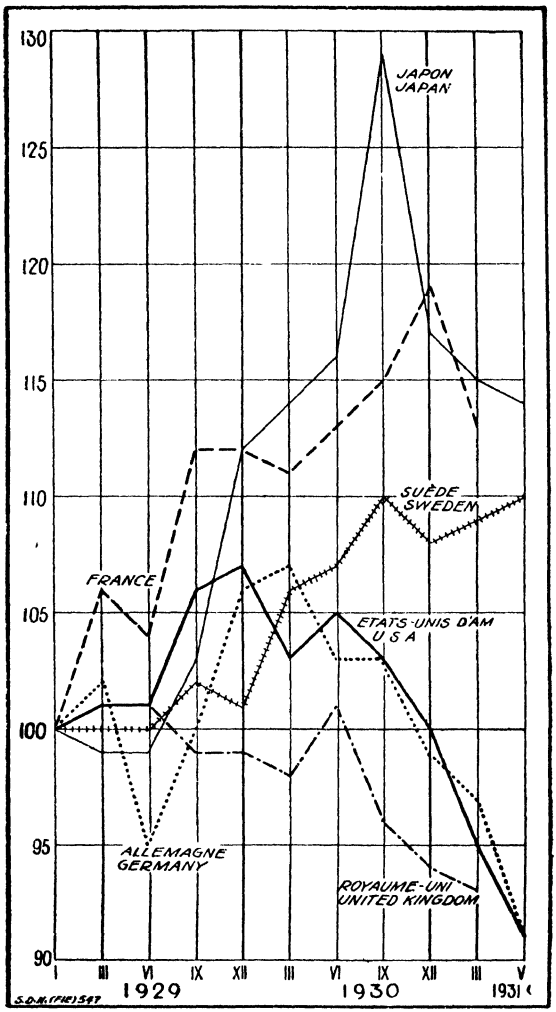
RATES OF DISCOUNT OF CENTRAL BANKS.



Source : *League of Nations Monthly Bulletin of Statistics.*

Chart 29.

LOANS AND DISCOUNTS OF COMMERCIAL BANKS, 1929-1931.
(January 1929 = 100.)



France : Loans and advances (four commercial banks).
German : miscellaneous loans and commercial bills (six Berlin banks).
Japan : total loans (Tokio banks).
Sweden : loans and discounts (joint-stock banks).
United Kingdom : loans, overdrafts and commercial bills discounted (London clearing banks).
United States : total loans of reporting member banks.
Source : *Federal Reserve Bulletin.*
Bilanzübersichten Deutscher Kreditbanken.
Committee on Finance and Industry, Report, June 1931.

In the United Kingdom, bank credit on the whole also tended to decline ; the contraction in 1929 began even earlier than in the United States, but was, on the whole, not nearly so severe. Loans and overdrafts were on an average considerably smaller in 1930 than in 1929, but discounts of commercial bills increased up to May 1930 when they were greater than at any previous date since the beginning of 1921. Subsequently, however, commercial discounts fell off more rapidly than loans and advances. On the other hand the banks' holdings of Treasury bills rose 100 per cent between December 1929 and December 1930. Investments increased 20 per cent in the course of 1930 and continued to rise in the spring of 1931. The fact that production in the United Kingdom dropped less than in most other countries after the outbreak of the depression may partly account for this increase in bill transactions. Bank clearing also fell off less than might have been expected in view of the magnitude of the decline in prices and in the stock market activity.

In Germany, discounts of commercial paper decreased, but advances on current account rose. Withdrawals of foreign credits from Germany brought about a development very different from that experienced during previous depressions. Nevertheless, bank credit rapidly declined and the total volume of new credit extended to private enterprise (including shares, bonds, mortgages and short-term bank credit) was much smaller than in the preceding years. According to the Institut für Konjunkturforschung, this new credit amounted in the years ending

March 31st, 1929, to 7,700 million RM.
March 31st, 1930, to 4,700 million RM.
March 31st, 1931, to 2,600 million RM.

In the months immediately following the break in the stock market in the autumn of 1929, considerable funds were tied up in frozen loans on securities, but gradually loans on collateral as well as advances to industry were substantially reduced by the non-renewal of credits and by writing off old debts.

The volume of deposits in most countries did not change substantially, but there was evidence of a shift from sight to time deposits, probably due to the slackening in business activity. The following table shows how the ratio of sight deposits to the total volume of commercial bank deposits has declined in certain countries.

Table XXVII. — Commercial Bank Deposits in Certain Countries.

Countries	End of :	Total deposits	Current accounts and sight deposits as percentage of total deposits
U. S. A.	June 1929	31,761 [1]	58.3
Member Banks	Dec. 1929	32,170	59.4
$(000,000's)	June 1930	32,505	57.9
	Dec. 1930	32,314	57.7
	May 1931	32,168	57.3
Germany	June 1929	11,414 [2]	41.0
All reporting	Nov. 1929	12,113	37.1
Kreditbanken	June 1930	12,751	41.4
RM (000,000's)	Nov. 1930	11,207	40.7
	June 1931	9,521	45.4
Canada	June 1929	2,137 [1]	31.4
Chartered banks	Dec. 1929	2,163	33.7
$(000,000's)	June 1930	2,034	30.7
	Dec. 1930	2,068	31.0
Sweden	June 1929	3,462	19.1
All banks	Dec. 1929	3,481	18.9
Kronor (000,000's)	June 1930	3,648	18.9
	Dec. 1930	3,631	18.8
	June 1931	3,631	18.0
Czechoslovakia	June 1929	28,433 [1]	66.4
Joint Stock Banks	Dec. 1919	29,486	66.0
and " Landes-	June 1930	29,389	64.6
banken "	Dec. 1930	30,407	64.0
Crowns (000,000's)			

The velocity of circulation of deposits declined rapidly. Accordingly to the New York Federal Reserve Bank, the velocity of circulation of bank deposits in New York City in the first six months of 1931 was considerably less than one-half what it was in the corresponding period in 1929 and about one-third of the velocity attained in the autumn of that year.

Notes in circulation tended to decline in most countries, while deposits with Central Banks tended to increase. In France,

[1] Excluding Government deposits.
[2] Including sums due to banks.

on the other hand, where the internal price level was relatively low when the depression started, the currency circulation increased during 1930. Only in France, Belgium, Spain, Lithuania, Uruguay and Russia was the volume of notes in circulation considerably higher at the end of 1930 than at the end of 1929. In Russia, the increase was especially pronounced ; between 1928 and 1930 the volume of bank and State notes in circulation in Soviet Russia was more than doubled and in 1930 alone rose by 60 per cent.

The unfavourable business conditions seriously affected the earnings of banks and many banks lost heavily through the insolvency of debtors.

The following table shows the growth in the number of failures in France, Germany, Italy and the United States, according to the available statistics. The returns on which these percentages are based do not cover the same classes of failures in each country, and are therefore not comparable. They do serve, however, as a rough indication of the change in business conditions in the countries considered.

Table XXVIII. — Percentage Increase, between 1928 *and* 1930, *in Number of Bankruptcies.* [1] [2]

(Monthly average.)

	France	Germany	Italy	United States
1928	100	100	100	100
1929	106	123	104	99
1930	111	142	117	119

Many banking institutions could not stand the strain and, having incurred losses either through the insolvency of debtors or on their investments, had to suspend payments. Actual failures of bankers and brokers at the time of the break in the stock markets in the autumn of 1929 and immediately after were remarkably few. Most of the important bankruptcies occurred after a year or more had elapsed ; they were especially numerous in the summer of 1931.

The number of bank failures varied largely with the conditions

[1] Source : *League of Nations Monthly Bulletin of Statistics.*

[2] (According to the terminology in use in each country.) The figures for France and Italy refer to traders, and those for Germany to firms inscribed on the Trade Registers. Those for the U. S. cover individuals, firms or corporations engaged in ordinary commercial operations ; suspensions of banks and other strictly financial institutions are included, but failures of professional men as well as of stockbrokers and real-estate dealers are excluded.

of banking in the different countries. Figures available for the United States show that bank suspensions, which amounted to less than 500 in 1928, rose to 650 in 1929 and 1,350 in 1930. In the early part of the latter year, an epidemic of failures, largely confined to small banks in rural districts, broke out in the Middle West and South ; some banks in the large commercial centres also went into liquidation. Although numerous, these suspensions involved in most cases relatively small sums. In the first half of 1931 the number of bank failures was 778 as against 542 in the same period of last year. Special difficulties had to be dealt with by banks in countries where large sums were tied up by the financing of stocks of commodities which depreciated in value, or by large credits to industries which became illiquid during the depression. In countries where there exists a close connection between banking and industry — especially Central European countries — industrial credits became frozen to a serious extent. Owing to this factor, combined in some cases with the withdrawals of foreign credits, certain banks of importance in Central and Eastern Europe were forced temporarily or permanently to cease operations.

The strain on the reserves of some Central Banks which was felt in 1929, was greatly increased in 1930 and 1931. Foreign exchange rates became seriously disturbed and reacted readily to risk factors, both political and economic. The value of the Spanish peseta, certain Latin-American currencies and the Australian pound fell considerably and events in the summer of 1931 seriously affected a number of European exchanges. The decline in the price of silver involved a substantial drop in the Chinese exchange.

Table XXIX. — Percentage Depreciation of Certain Currencies.[1]

	Average May 1929 per cent	Average May 1930 per cent	Average May 1931 per cent
Discount against Dollar.			
Spain	— 26	— 37	— 48
Argentine	— 1	— 10	— 27
Brazil	— 1	— 1	— 44
Uruguay	— 6	— 11	— 41
Venezuela	—	— 1	— 15
Discount against Pound Sterling.			
Australia	— 1	— 6	— 23
New Zealand	— 1	— 4	— 8

[1] Source : *League of Nations Monthly Bulletin of Statistics.*

Attempts to build up confidence were made in various ways. Of these may be mentioned the establishment of several institutions for long-term credit. In the field of short-term credit, a new factor was introduced by the establishment of the Bank of International Settlements in connection with the Young Plan. An International Agricultural Mortgage Credit Company is in the course of formation under the auspices of the League of Nations.

Table XXX. — Savings Bank Deposits.[1]
$ (000,000's).[2]

	United States : N. York State Savings Banks	United Kingdom : Post Office and Trustee Savings Banks.	France : Caisse nationale d'épargne	Germany : Savings Banks	Italy : Savings Banks Postals and Others
1928 Dec. . .	4,406	1,953	345	1,668	1,251
1929 Dec. . .	4,392	1,956	444	2,158	1,334
1930 Dec. . .	4,792	2,030	575	2,479	1,431
1931 April. .	5,059	2,086	657	2,658	1,493

Although the figures of such visible savings as those given by way of sample illustration above rose in almost all countries, the increase was much smaller than in the years preceding the depression. In many countries, indeed, accruing interest was largely responsible for the increase. The following figures for Germany are significant :

Table XXXI. — Changes in Savings Banks Deposits in Germany.[3]
R.M. (000,000's omitted).

	Monthly average increase		
	Total Increase	Due to interest and valorisation	Due to cash deposits
1929			
Jan.-May	202	55	147
June-Dec.	145	47	98
1930 and 1931			
Jan.-July	142	49	93
Aug.-March	129	68	61

[1] Source : *League of Nations Monthly Bulletin of Statistics.*
[2] Converted in dollars at par.
[3] Source : *Wochenbericht des Instituts für Konjunkturforschung*, April 15th, 1931.

This table shows that the rate of savings in Germany has fallen steadily since the first half of 1929, and it is probable that similar tendencies were experienced in other countries.

Events in Europe in the spring and summer of 1931 weakened the confidence of depositors in certain countries ; as a result the amount of new savings brought to commercial banks fell off considerably, deposits were withdrawn on a large scale and hoarding in various forms occurred. For the same reason, capital was sent from certain countries in Central Europe with a high interest level to others which were considered more safe — in particular, Switzerland.

D. Foreign Trade and Shipping.

The violent disturbances in the field of production and prices were reflected in the movements of international trade. It is noticeable, however, that, during the depressions experienced towards the close of the 19th and the early part of the 20th centuries, changes in the value of international trade were chiefly due to price movements and relatively little to changes in the quantities exchanged. As far as can be judged from not very satisfactory figures for the quantum of trade in the pre-war periods of depression, the figures of the volume of trade deviated little from the rising long-period trend. According to estimates by Professor Wagemann [1], the volume of world trade dropped during the depression in the early 'nineties, as well as after 1907, by 7 per cent below the long-period trend, while there was hardly any such reduction after the crisis in the year 1900. Estimates on a similar basis for world trade in the first quarter of 1931 show a reduction of no less than 20 per cent.

Such figures indicate that an exceptionally violent disturbance of world economic relations has occurred. International trade has not, as on many earlier occasions, been able to serve as a safety valve for the extraordinary pressure existing within certain main economic organisms ; the reason is probably that the latter half of the present depression has been more uniformly worldwide in character than those in the decades before the war. It is also possible that the reduction in international capital transactions after the summer of 1930 has been relatively greater than during pre-war depressions, and that this has served to restrict international trade. Another fact of some importance is the increase in tariffs which has taken place during the last

[1] *Struktur und Rhythmus der Weltwirtschaft*, Berlin 1931, page 157.

two years. Not only has the real weight of the specific duties been increased in proportion to the decline of wholesale prices, but actual increases of duties and other impediments to the trade in foodstuffs have been numerous and considerable. Consequently, the free world market for such commodities has been greatly restricted. World-market prices of foodstuffs have been adversely affected, and the purchasing power of certain important foodstuffs-producing countries has declined ; these countries have therefore been forced to restrict the volume of their imports of manufactured goods, of which prices have declined relatively little.

The value of world trade continued on a high level during the first three quarters of 1929, and has since then declined continuously (compare Chart 14 in Chapter IV). The rate of this decline seems to have been surprisingly constant throughout the depression period. In the second half of 1930, the value of imports in forty-five countries — representing 88 per cent of total world trade — fell short of the figure for the corresponding period of 1929 by more than 24 per cent. In the first quarter of 1931, the reduction, compared with the corresponding period in 1929, was no less than 36 per cent. The reduction for export values was even somewhat greater (38 per cent), as may be seen from the following table.

Table XXXII. — Value of the Foreign Trade of Certain Large Regions in 1930-31, *as compared with* 1929.

	In per cent of corresponding half-year in 1929				First quarter of 1931 in per cent of first quarter of 1929	
	First half 1930		Second half 1930			
	Imports	Exports	Imports	Exports	Imports	Exports
Europe [1]	90	93	82	80	71	72
North America [2] .	82	79	65	69	52	50
Rest of world [3] . .	82	76	66	67	55	53
Total	87	85	76	75	64	62

The reduction was much smaller in the case of Europe than for the rest of the world. The value of both imports and exports

[1] Twenty-five countries representing 99 per cent of European trade.
[2] The United States of America and Canada. representing 99 per cent of North American trade.
[3] Eighteen countries, representing in 1928 61 per cent of the aggregate trade of the continents concerned.

declined by less than three-tenths for Europe and by almost one-half for other continents.

Table XXXIII. — Direction and Total Value of Exports of Certain Countries in 1930, *as compared with* 1929.
(1929 = 100.)

	Europe	North America	Rest of World	Total
U. S. A.	79	70	69	73
Canada	76	70	66	71
Australia (years ending June 30th)	95	90	66	86
Japan	87	56	77	68
United Kingdom :				
(a) General Exports	87	72	73	78
(b) Special Exports	89	72	75	78
Germany	95	70	78	89

This table shows that Europe has been a better customer in 1930 compared with the preceding year than the rest of the world. The sales to Africa have also been fairly well maintained. One reason why European trade seems to have suffered less than that of other continents is that a comparatively large part of its population is employed in manufacturing industries, which were less severely hit by the decline in prices than industries producing foodstuffs and raw materials. The following table shows that the export value of ten countries exporting mainly manufactured goods had declined 37 per cent in the first quarter of 1931, compared with the same period two years earlier, while it had dropped, in six non-European countries exporting vegetable foodstuffs and raw materials, as much as 52 per cent. The European exports of these cruder products maintained their export values much better, but the high figure in the table is partly due to the increase in the exports of Russia. If that country were excluded, it would be true that manufacturing countries would be found to have reduced their export values by a little more than one-third, and countries exporting primary products by almost one-half. Fundamentally different has been the position of countries exporting animal foodstuffs, as is seen from the fact that the exports of Denmark and the Irish Free State only declined by 6½ per cent in value.

Table XXXIV. — Value of the Foreign Trade of Certain Groups of Countries in 1930-31, as compared with 1929.

	In per cent of corresponding half year in 1929				First quarter of 1931 in per cent of first quarter of 1929	
	First half 1930		Second half 1930			
	Imp.	Exp.	Imp.	Exp.	Imp.	Exp.
1. Ten countries exporting mainly manufactured goods . . .	88	87	77	76	66	63
2. Countries exporting mainly vegetable food and raw materials :						
(a) Five European countries	97	114	87	86	82	94
(b) Six countries in other continents	81	72	66	63	61	48
(c) Total of *(a)* and *(b)* . .	84	79	71	68	65	55
3. Two European countries exporting mainly animal food .	99	100	87	89	97	94

The movement of imports in these various groups of countries is shown on the table and need not be commented upon here. It is striking, however, that non-European countries producing primary products reduced their imports much less than their exports, while the opposite was true of European countries of the same type. Importation of foreign commodities plays a more important rôle in the economic life of the former countries, in which a restriction of imports is therefore much more difficult to bring about. Further, these countries had a large supply of foreign exchange and gold which they were able to utilise to pay for a temporary excess of imports, while the European primary producers had to adjust their import values to the changed export conditions.

Further analysis of the changes in trade as between different countries during 1930, compared with 1929, reveals the important fact that trade between European manufacturing countries was very little affected by the depression. The reduction in the foreign trade of European countries was thus almost exclusively due to the falling-off in trade with other parts of the world. In 1931 the situation, however, changed in this respect.

For a few countries, indices of the prices of goods entering into international trade are available, which makes it possible to compute roughly the quantum of their international trade. A study of this material shows that the quantum of imports in five manufacturing countries, taken as a whole — the United States, the United Kingdom, France, Germany and Czechoslovakia — declined by only about 6 per cent from 1929 to 1930 ; whereas the volume of their exports fell off by 13 per cent. This indicates that the terms on which international trade was carried on by these countries were changed considerably to their advantage. It must be kept in mind, however, that the magnitude of the variation in the terms of trade cannot be judged from such figures, owing to the fact that the net export of capital from this group of manufacturing countries was much reduced in 1930. Similar figures for cereal- and raw-material-producing countries are not available, but price data support the conclusion that the terms of trade of these countries moved in the opposite direction (see Chapter V B). Furthermore, the fact that manufacturing countries seem to have suffered much less than others during 1930 has been partly due to the large and practically fixed interest payments which they received ; the decline of the price level naturally increased the real value of these payments.

Table VII in the Appendix shows that in all countries for which quantum figures are available, with a few exceptions, a reduction of the volume of imports and exports has taken place. Value figures have of course declined still more. The most notable exception is Russia, which will be discussed below. France increased the quantum of her imports ; New Zealand, Algeria, Latvia, and the Netherlands Indies their exports, while Denmark increased both exports and imports.

Countries which sell a large part of their commodities to Europe have fared better than those which export largely to other continents. For instance, the export value of the United States fell off by as much as 27 per cent ; in the United Kingdom, the value of exports declined by almost 22 per cent and its quantum by over 17 per cent, whereas the value of German exports fell only 10 per cent and the quantum only 4 per cent. This would appear to have been partly due to the fact that Great Britain normally sends only about a third of her exports to Europe, while Germany sells three-quarters of hers to European countries. The fact that Germany maintained her exports at a high level was also the outcome of other circumstances — in particular, the necessity for making reparation payments and meeting other fixed obligations abroad during a period when the influx of foreign capital was reduced. This of course also affected imports into Germany, the quantum of which

declined 11 per cent or almost three times as much as that of the exports. As a result of these changes, Germany recorded an export surplus of about $224 million in 1930, as against an import surplus of $187 million in 1929 and $569 million in 1928.

Not only Germany, but also certain other important borrowing countries maintained their exports better than their imports in 1930. The Argentine, which exported gold and reduced her foreign liquid assets instead of curtailing imports, and whose exports declined owing partly to a bad harvest, affords a striking exception.

For certain important manufacturing countries — the United States, the United Kingdom, France and Germany — changes in the value and volume of trade in certain groups of commodities are shown in Tables VIII-IX in the Appendix and in Table XXXV below.

In all these countries, the value of the imports of raw materials declined much more than the value of imports of finished products. In France, there was even a considerable increase in the value of imports of the latter group. Similarly, exports of manufactured goods were better maintained than exports of raw materials, except in the case of Great Britain.

Table XXXV. — Value and Quantum of Trade in 1930, as Percentage of 1929.

	Imports		Exports	
	Value	Quantum	Value	Quantum
United States :				
Crude materials	64	—	73	—
Semi-manufactures	69	—	70	—
Finished manufactures . . .	76	—	75	—
United Kingdom :				
Raw materials	74	90	81	84
Articles, wholly or partly manufactured	93	100	77	81
France :				
Industrial materials	83	103	79	93
Manufactured articles	113	125	86	86
Germany :				
Raw and semi-manufactured goods	76	91	84	93
Manufactured articles	79	84	92	96

The quantum figures for the three European countries confirm the impression that their trade was relatively well maintained during 1930. That the exports of manufactured products from manufacturing countries kept up well is also seen from Table XXXVI. This table reveals the great difference between the ability of Europe and other parts of the world to purchase such commodities. Exports of Germany to Europe in 1930 were nearly as large as in 1929 and larger than in 1928 while exports to other continents were about 25 per cent lower

Table XXXVI. — Value of Exports of Manufactured Products in 1929 *and* 1930, *as Percentage of* 1928.

	1929	1930		1929	1930
Germany* :			United States [2] :		
To Europe . .	112	111	Semi-manufact.	102	72
To Non-Europe	116	86	Finished . . .	112	84
Total . . .	113	104	France [3]	98	85
United Kingdom [1]:			Belgium [4] . . .	106	90
Domestic Exp..	99	76	Netherlands [5] . .	108	92
Re-exports . .	111	93	Czechoslovakia [6] .	100	88

Among the manufactured commodities, exports of producers' equipment seem to have kept up at least as well as those of consumers' goods. It should be observed, however, that before the war, there was a clear tendency towards increased trade in the former kind of commodities, a tendency which seems to have continued later. To judge the influence of the depression, it is therefore necessary to eliminate this trend. According to Professor Wagemann, the exports of these two classes of commodities from Germany, the United Kingdom and the

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* Brussels classification ; including War Reparations in kind.
[1] National classification, viz : " Articles wholly or mainly manufactured ";
[2] National classification.
[3] National group " Objets fabriqués ".
[4] Brussels classification.
[5] National group " Fabrikaten ", which is practically that of Brussels classification.
[6] Brussels classification.

United States moved in the manner indicated by the following table :

Table XXXVII. — Percentage Changes in Exports of Producers' and Consumers' Goods. [1]

	1910 as compared with 1900	1913 as compared with 1910	1925 as compared with 1913	1930 as compared with 1925
Producers' Goods :				
Germany	+102	+ 46	— 35	+ 47
United Kingdom . .	+ 57	+ 28	— 2	— 9
United States . . .	+ 56	+ 66	+ 49	+ 9
Total	+ 72	+ 44	— 3	+ 14
Consumers' Goods :				
Germany	+ 38	+ 26	— 32	+ 19
United Kingdom . .	+ 55	+ 18	+ 2	— 39
United States . . .	+ 74	+ 35	+ 33	— 21
Total	+ 51	+ 22	— 5	— 22

From 1925 to 1930, the value of exports of producers' goods increased by 14 per cent, while the value of exports of consumers' goods declined by 22 per cent. The boom period brought a relative increase in the importance of producers' goods in international trade. From 1929 to 1930, the reduction in the German exports of finished commodities belonging to these two classes seems, however, to have been almost the same. The high German exports of producers' equipment goods were partly due to large sales to France. Since the new tariff agreement between those two countries, German exports to France of electro-technical machinery have risen to twelve times the figure in 1927 and the exports of machines in general to eight times the figure for that year.

The readjustment of the net trade balances — that is, the difference between imports and exports — of certain groups of countries, which has resulted from the changes in the conditions

[1] Source : Wagemann : *Struktur und Rhythmus der Weltwirtschaft*, Berlin, 1931, page 145.

of international trade and in international capital and gold movements, are seen in Tables X-XI in the Appendix. In manufacturing countries, no radical change took place from the second half of 1929 to the second half of 1930, or from the first quarter of 1929 to the first quarter of 1931. European countries exporting vegetable foodstuffs and raw materials appear to have adjusted their trade balance in the course of 1929 and to have continued to do so in 1930. Such countries in other continents, on the other hand, have in many cases changed their trade balance in a negative direction, in spite of the fact that long-term borrowing has been much restricted. (See next section.)

It is impossible to enter here upon a description of the trade in individual commodities. It may, however, be mentioned that trade in coal seems to have been very little affected by the depression ; in the second half of 1930, it exceeded that in the corresponding period of 1928. World exports of motor-cars fell in 1930 by over 50 per cent, while production fell by less than 40 per cent.

Russia is a notable exception to the general movement towards a reduction of both the quantity and value of international trade. The value of Russia's foreign trade increased by 16 per cent from 1929 to 1930 and, if quantum figures were available, they would of course show a still greater rise. Export values increased by 13 per cent and import values by 21 per cent. A comparison of the trade of Russia to-day and before the war is exceedingly difficult on account of territorial changes. It would seem that the foreign trade of the U. S. S. R. in 1930, although considerably larger than in preceding years, was still less than that of those parts of the Russian Empire comprised within the present Soviet Union before the war. In spite of a bumper crop in 1930, the exports of cereals would appear to have been smaller than before 1914. The timber exports, on the other hand, seem to have been somewhat larger. As the considerable and unexpected increase in the supply of certain important Russian commodities in 1930 occurred during a period of depression, it naturally exercised a considerable influence on the movement of prices. On the other hand, the even greater increase in imports of semi-manufactured and finished commodities must have exercised a stimulating influence on the industries which were able to sell to Russia. For example, the U. S. S. R. imported agricultural and other machinery to a value of 361 million roubles ($186 million at par of exchange) or more than twice the figure for 1929. The imports of motor-cars, ships, finished iron and steel goods other than machinery, semi-manufactured products of iron and steel and metals, also show

a considerable increase. It should be observed, however, that Russian imports of raw materials have been declining, a fact which has tended to intensify the slump in their prices on the world markets.

During 1931, the tendencies in international trade which have been described above were considerably modified. The value of world trade continued to contract and in the first quarter of the year was 30 per cent less than in the corresponding period of last year. (See Tables XXXII and XXXIV above.) This was an even greater reduction than in the previous year. The chief difference, however, between 1931 and 1930 was a change in the relative position of the different countries. Manufacturing countries reduced their exports at least as much as — in many cases more than — other countries. This was largely due to the fact that, while their trade with non-manufacturing countries continued to fall, there was a still greater drop in the trade between the different manufacturing countries, which had been well maintained during 1930. Further, it was the volume of trade in finished goods which declined most. How severe the reduction in the exports of manufactured products has been is shown in the following table for certain countries :

Table XXXVIII. — Value of Exports of Manufactured Products in the First Quarter of 1931, *as Percentage of the First Quarter of* 1929.

Germany :		United States :	
To Europe	93	Semi-manufactured. .	48
To Non-Europe . . .	61	Finished	49
Total	83	France	72
United Kingdom :		Belgium.	85
Domestic Exports . .	54	Netherlands	74
Re-exports.	69	Czechoslovakia.	79

This reduction of world trade could not but considerably influence conditions in the shipping industry. It has been mentioned in Chapter II above that shipping rates ever since the war had tended to decline and were relatively low. The fact that, even during the summer of 1929, more than five per cent of total tonnage was laid up indicates that a considerable surplus existed. Under such conditions the reduced demand for cargo

space, which accompanied the decline in world trade, naturally depressed rates, as is shown in the following table :

Table XXXIX. — Index Numbers of Ocean Freight Rates.
(1913 = 100.)

	Economist	*Statist*	*Statistisches Reichsamt*
1927	110	119	106
1928	99	110	102
1929	97	106	109
1930	79	82	92
1931 [1].	81	85	88 [2]

The fall from the 1928 level was, however, rather smaller than that for most commodity prices. Computations of a general index vary considerably and show a reduction of from 10 to 16 per cent. The further reduction in 1931 has been insignificant.

The downward tendency of shipping rates has of course been strengthened by the fact that shipbuilding continued on a large scale throughout 1930 ; it has, however, fallen off considerably during 1931. The total world gross tonnage exceeded 70,000,000 tons in June 1931, or 3,000,000 more than in the same month of 1929, while it was about 47,000,000 tons in 1913.

That shipping rates declined so relatively little in spite of this increase in supply in a period of falling demand would appear to be chiefly due to the fact that the rates were already not much above the variable costs of many old ships. Hence, even a small reduction has made it unprofitable to keep them in commission. The tonnage not in use in the spring of 1931 was about 18 per cent of the total.

It should be added that certain rates have not participated in the general decline. On important routes the companies which control the liner traffic agreed to maintain almost the same rates as before the depression, both for passengers and for many classes of goods, and very little changes were made before the summer of 1931. This fact, however, although it has tended to restrict the trade in some commodities on these routes, has been of relatively little importance compared with the reduction in the rates ruling in the tramp traffic.

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[1] First half of the year.
[2] January to April.

E. International Capital Movements.

Outline of Recent Changes.

In Chapter IC, a summary was made of the movements of international capital which took place after the war until the middle of 1928. Attention was drawn to the gradual increase in the volume of capital transfers — particularly to the growth in European borrowing at the time of the monetary stabilisation — and to the return to more normal political conditions in certain countries in 1924-25.

Temporary disturbances in the latter part of 1925 and in 1926 checked capital transfers to a certain extent. From 1927, French capital exports began to fall off and change in a way which, it would appear, affected most directly the credit situation in Germany. Nevertheless, capital movements in 1927 and 1928 were very considerable. In each of these years the aggregate net capital export from the three largest capital-exporting countries — the United States, the United Kindgom and France — amounted to between $1,500 million and $2,000 million and the capital imports of Germany are believed to have exceeded $1,000 million.

By the middle of 1928 there were signs of a general contraction in international capital operations. The foreign issues floated in the United States fell from the exceptionally high figure of $842 million in the first half of that year to $409 million in the second. This reduction was, however, partly offset by exports of short-term capital; for, during the second half of the year, the foreign borrowers were able to draw upon their deposits in American banks, consisting largely of the proceeds of loans previously floated. The turn in the net capital exports of the United States on long- and short-term account only came in the beginning of 1929. During that year they fell to $233 million or to less than one-fourth of those in 1928.

For the United Kingdom no direct estimate of the capital movement is available, but the surplus on account of current items and Government capital transactions in the official balance of payments estimate amounted to $667 million in 1928 and $672 million in 1929 [1]. If this estimate be correct, private capital exports were as great or even slightly greater than in 1928. The amount of new capital issues for foreign account fell, however, by over a third and the outflow of capital in other forms than new long-term loans would thus appear to have increased. French capital exports, which were still considerable in 1928, were practically wiped out in 1929.

[1] Preliminary figure.

The restriction of capital movements is of course equally noticeable in the figures for borrowing countries. German net borrowings are estimated to have fallen off in 1929 by $450 million or nearly 44 per cent ; similar reductions took place in the case of a number of other countries.

The following table summarises the available information concerning the net capital movement in the years 1928-1930 for a number of countries, lenders as well as borrowers. Capital exports are indicated with a (+) sign and imports with a (—) sign. For certain of the countries, these figures, which comprise both long- and short-term capital, are not based on direct evidence of the capital transactions but are calculated from the balance of current commercial transactions.

Table XL — International Capital Movements, 1928-1930.

$ (000,000's)

	1928	1929	1930
Lending countries :			
Canada [1]	+ 164	— 87	— 161
Czechoslovakia	+ 59	+ 27	+ 13
France [1] [3]	+ 235	— 29	— 234
United Kingdom [1] [2]	+ 667	+ 672	+ 190
United States of America	+ 1,036	+ 233	(+ 547) [7]
Sweden [1]	+ 19	+ 71	+ 26
Borrowing countries :			
Argentine [4]	— 131	— 38	.
Australia [1] [5]	— 193	— 166	— 187
Denmark	± 0	+ 9	— 2
Dutch East Indies	+ 8	— 32	— 29
Finland [1]	— 40	— 12	+ 5
Germany [1]	— 1,017	— 554	— 145
Hungary	— 88	— 37	.
India [1] [6]	— 67	— 36	— 92
Japan	— 54	+ 25	.
New Zealand [1] [6]	+ 5	— 54	.
Norway	— 34	— 14	— 42
Poland	— 140	— 58	.
Yugoslavia	— 26	+ 8	.

[1] Indirect estimates, calculated on the basis of figures relating to merchandise, gold and services.
[2] The figures exclude Government capital transactions.
[3] The figures exclude amortisation of Inter-Allied debts.
[4] Economic years ending September 30th.
[5] Economic years ending June 30th.
[6] Economic years beginning April 1st.
[7] Provisional figure.

In a number of cases the capital balances were reversed in 1929. Thus, three of the borrowing countries shown in the above table (Yugoslavia, Denmark and Japan) recorded a net capital *export* in that year. Regular amortisation payments and repayments of short-term credits tend, it should be remembered, to create a capital export from debtor countries if new borrowings are curtailed.

Canada, which had been exporting capital during the period 1923-1928, imported capital in 1929. The chief reasons for this change were the drop of over 46 per cent in the Canadian wheat crop in 1929 as a result of which the export surplus of Canada was reduced, and the exceptional demand for capital in the country, created partly by the industrial boom, partly by the storing up of a portion of the rich crop of 1928 by the Wheat Pool. The capital balance of the Dutch East Indies was also reversed in 1929, when there was a capital import into the country of some $30 million, due in part to the adverse effect upon the trade balance of the falling prices of the main products of the country.

New Zealand normally borrows, but, in the economic years beginning April 1st, 1927 and 1928, there appears to have been a small capital export from that country. The resumption of capital imports in the following year (April 1st, 1929-March 31st, 1930) was connected with the fall in the prices of wool and other exports. The inflow of capital was exclusively in the form of sales of domestic holdings of outstanding foreign securities and short-term funds ; no long-term loans are recorded.

Unlike most lending countries, Sweden records an unusually high capital export in 1929 — higher, indeed, than in 1927, when the previous post-war record was reached. In 1928, the capital outflow was curtailed, probably largely under the influence of labour disputes in the main exporting industries.

The countries shown in the table, other than those mentioned above, record a drop in 1929. Czechoslovak capital exports fell by 42 per cent, Argentine capital imports by 71 per cent, Australian capital imports by 14 per cent, Indian capital imports by 46 per cent and Polish, Hungarian, Norwegian and Finnish capital imports by 59, 58, 76 and 70 per cent respectively. For a number of countries, no figures concerning the capital movement are available ; but the conclusions which may be drawn from the movement of the visible trade balance and other factors confirm the view that the restriction in international credit was almost universal.

As mentioned above, the change in the capital market was noticeable in certain countries by the middle of 1928 or more than a year before the turn of the business cycle. A further contraction would appear to have taken place in the summer

of 1929 and to have been one of the factors which led to the spread of the crisis in the autumn of the same year.

Capital movements after the turn of the business cycle in 1929 are only incompletely known. The net export of capital from the United Kingdom, which in 1929 had remained at practically the same level as in preceding years, was considerably reduced in 1930. The surplus on account of current items and Government transactions, according to an official estimate, fell from $672 million in 1929 to $190 million. The provisional estimate of the United States' balance of international payments leaves it open to doubt whether the capital exports of that country in 1930 exceeded the low figure for 1929 [1]. It is known, however, that other countries re-purchased a large quantity of their securities. The net export of long-term capital was therefore only $213 million, against $324 million in 1929.

France appears to have withdrawn large amounts of her short-term investments abroad in 1930 and, judging from the visible trade figures, it may be assumed that there was a huge inward capital balance. From being one of the most important capital-exporting countries of the world, France in the course of two or three years seems to have become an importer of capital. The change was accompanied by a steady increase in French gold imports. Switzerland, according to an authoritative statement [2], received more capital from abroad in 1930 than she invested there. The change in the Swiss balance would seem to be connected with the inflow of short-term funds from Germany and other countries and was due — in spite of the exceptional decline in money rates in Switzerland — to a desire to avoid high taxation or risks elsewhere. Belgian, Czechoslovak and Swedish capital exports also contracted in 1930.

The German inward capital balance, which in 1929 had fallen off considerably, was further heavily reduced in 1930. In the first half of the year, the inflow seems to have been considerable — about $150 million — but late in the summer the confidence of foreign capitalists was shaken and a large outflow of liquid funds began. This led to a reduction of the foreign exchange reserves, while long-term borrowing continued;

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[1] The specified capital items show an increase in capital exports from $233 million in 1929 to $547 million in 1930. The figures for goods and services, however, point to a capital export of only $173 million in 1930. There is thus an unexplained difference of not less than $374 million. As elsewhere in this volume, the United States' capital exports have been calculated according to a method which differs somewhat from that employed in the estimate by the U.S. Department of Commerce. The capital items in that estimate show a capital export of $733 million in 1930, but this figure does not take into account amortisation of Inter-Allied debts, the movement of merchandise credits and certain other minor items which in this volume are reckoned as capital items.

[2] Report of Professor G. Bachmann, President of the Board of Directors of the Swiss National Bank, to the Assembly of the Bank on March 7th, 1931.

the net movement of capital in the second half of the year seems to have fallen to an insignificant sum. For the whole year the net foreign borrowing is estimated at $145 million or not much more than a third of the German reparation payments. These payments were rendered possible by a surplus of commodity exports over imports of $370 million.

The information available concerning trade in merchandise and gold suggests a similar fall in the capital imports of Poland and Hungary. Canada, which began to borrow in 1929, seems to have increased its capital imports considerably in 1930. Japan's balance of payments changed in the opposite direction : after having imported capital steadily up to 1928, it recorded a small net export in 1929, which probably increased greatly in 1930.

The tendencies towards a contraction in the international capital movements other than reparation payments and in some cases towards a reversal in the direction of the net movement of capital, which had become evident during the boom of 1928-29, were thus on the whole intensified in 1930. As far as is known, there are few exceptions to this rule. The capital imports of Australia, India and Norway are estimated to have grown in 1930. According to the trade figures, however, an effective curtailment of capital imports into Australia and India took place during the first half of 1931.

Some observations on the short-term capital movements will be made in Chapter VIII. Towards the end of 1930, Germany had a net indebtedness on short-term account of over $2,000 million. Fluctuations in this sum exercised a dominating influence on the German economic position during 1931.

The above statements refer to the total capital balances and are, to a certain extent, contradicted by the information available concerning the movement of new capital issues floated for foreign account in the main lending countries. There was a growth in such issues in the last months of 1929 and the first half of 1930, and during this period the flow of capital from lending to borrowing countries in certain other forms probably increased also. Later in the latter year, however, capital movements again contracted as a result of certain economic and political factors and it appears that the tendencies of the last half-year outweighed those of the first.

In 1931, the long-term capital movements seem to have continued to decline, but detailed figures are not available. France granted considerable loans to agricultural countries in South-Eastern Europe.

Analysis of New Capital Issues.

In studying the movement of new capital issues, it should be remembered that, although over a longer period they may

be of more significance for the future capital balance of the countries concerned than, for example, purchases and sales of outstanding securities or lendings and borrowings on short term, which normally offset each other to a large extent, this may not be true of a shorter period. Impressions from a study of such issues must therefore be corroborated or completed by other data showing the changes in the capital market, particularly the movement of effective bond yields and money rates in different countries.

The United States capital issues for foreign account culminated in 1927. In this year they amounted, according to the Department of Commerce, to $1,337 million, or about double the corresponding figure for issues in the United Kingdom, but they fell to $1,251 million in 1928 and $671 million in 1929. This contraction in United States lending abroad in 1928 and 1929 coincided with the New York Stock Exchange boom.

In the second quarter of 1928, as the boom gathered strength, bond yields began to rise and continued to do so until the autumn of 1929. The consequence was an increase in the actual interest rate necessary to induce lenders to take up issues of fixed-interest securities, and this increase, though small, was sufficient to discourage such issues in the United States. Foreign Governments to a large extent turned to other capital markets where conditions, although affected by those prevailing in the United States or by local booms, were generally less unfavourable. In other cases, these Governments were able to meet their requirements for current expenditure or for refunding of matured loans by short-term banking advances, thus avoiding the flotation of new bonded loans or at least postponing it in anticipation of more favourable conditions on the market.

Table XLI. — United States, Capital Issues for Foreign Account.[1]

$ (000,000's)

	1927	1928	1929	1930
Bonds and notes :				
(a) Government and municipal loans	827	586	121	548
(b) Industrial bonds and notes	699	625	473	419
Shares :				
(a) Preference shares	17	40	114	13
(b) Ordinary shares	18	69	51	29
Total	1,561	1,320	759	1,009

[1] Series of the *Commercial and Financial Chronicle*. The figures show nominal values and exclude refunding operations.

The Stock Exchange speculation favoured the issues of foreign shares in the United States, but, although the volume of such issues was five times as great in 1929 as in 1927, it was still relatively unimportant — representing only 22 per cent of the total issues for foreign account. A more substantial growth in foreign issues in the United States was prevented " by the reluctance of foreign managements to see corporate control pass to another country and by the traditional unwillingness of American investors to purchase stocks of foreign corporations "[1]. The demand for a relatively high degree of security when subscribing for foreign securities may account for the fact that the volume of foreign preference shares rose more rapidly than that of ordinary shares, while the reverse is true of the share issues for domestic account.

When share speculation came to an end in the last quarter of 1929, capital was again released for bond issues and the total issues for foreign account rose rapidly up to the middle of 1930. During the last half of that year, they again fell to a low point.

The cause of this new decline was no doubt partly the aggravated economic conditions in a number of borrowing countries suffering from the low prices of their export products and other repercussions of the crisis and partly political complications in different parts of the world which themselves resulted from or were intensified by the economic depression.

The distribution of the United States capital issues for foreign account reveals certain facts of particular interest. Available funds were largely attracted, not by countries which normally require foreign credits, but by those with a rich domestic capital supply. Similarly, loans to a number of the most important borrowing countries in other continents were reduced. The course of events may best be illustrated by the fact that, while issues for the account of Canada and Sweden, which are as a rule capital-exporting countries, rose from $194 million in 1928 to $354 million in 1929 or from 16 to 53 per cent of the total of American issues, those for the account of six large borrowers — namely, Germany, Japan, Australia, the Argentine, Brazil and Colombia — fell from $570 million to $52 million, or from 46 to 8 per cent of the total.

The movement of capital from the United States to Germany has all through the period under review been closely connected with the political situation of the latter country. The contraction of American capital exports in 1928 coincided with a strong movement in Germany for a definite settlement of the reparation

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[1] *American Underwriting of Foreign Securities in* 1929. *(Trade Information Bulletin,* No. 688), page 6.

problem ; in September 1928, an agreement was reached by which the creditor Powers recognised the necessity for such a settlement. Negotiations started at the beginning of 1929 and continued throughout the year. The final agreement was not reached until January 1930, or a few months after the definite turn of the business cycle had taken place. The uncertainty with regard to the result of the negotiations during this considerable period tended to check loans to Germany as well as to certain other European countries.

With the expansion of foreign financing in the United States during the first half of 1930, a number of countries which during the boom period had been largely shut out of the New York capital market were again able to borrow there. Considerable amounts were raised during the second quarter by Germany, Argentine, Brazil and Japan. When the volume of issues for foreign account again fell off in the middle of the year, these countries were once more virtually excluded and the only country which continued borrowing freely in New York was Canada, in spite of the relatively low yield offered by Canadian bonds. In the last quarter of the year, Canada was practically the only foreign borrower.

It is not necessary to analyse in detail the capital issues in international capital markets in Europe. The major charges are summarised in the following table, showing the changes in the volume of issues for domestic and foreign account and the foreign issues as percentage of total issues in the United Kingdom, the Netherlands and Switzerland, together with corresponding figures for the United States. (See Table XLII.)

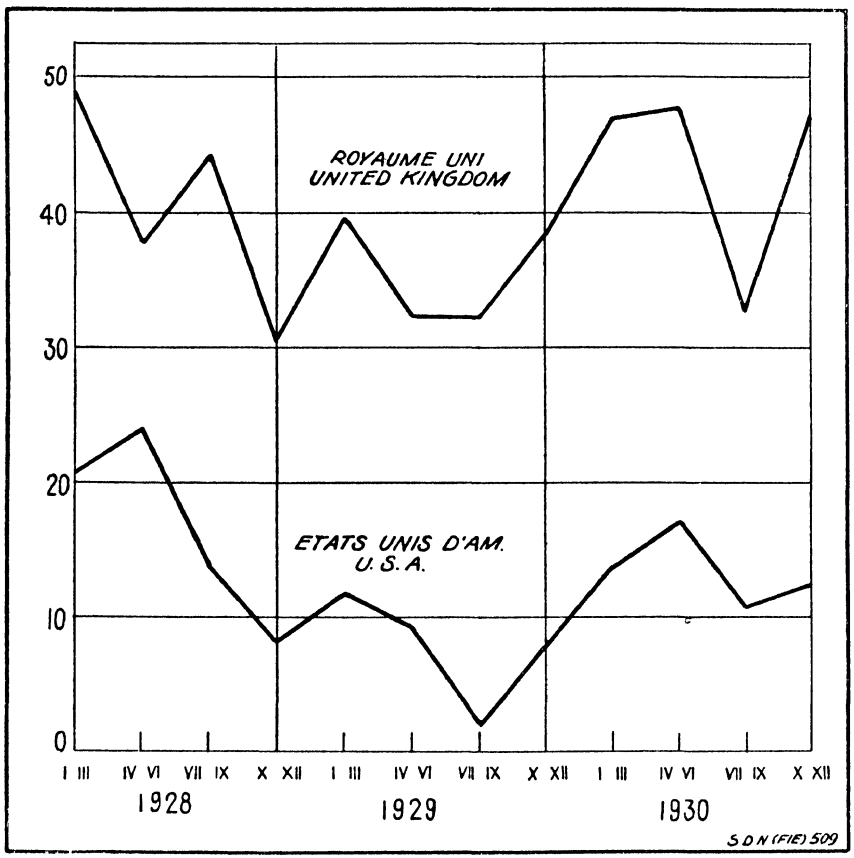
British lending in the form of new capital issues for foreign account has recently been less affected than that of the United States by temporary political complications or business fluctuations. This is shown by Chart 30. A number of countries which could not borrow in the United States during the boom period of 1928-29 were able to satisfy their most urgent requirements in the United Kingdom. Thus Germany increased her borrowings in London from £2 million in the first half of 1928 to £5.9 million in the second half. Since the middle of 1929, she has not, however, borrowed in this market. Similarly, in the last quarter of 1930, when the United States loans were confined to Canada, the United Kingdom lent large amounts to such countries as India and the Argentine.

For Italy detailed figures are available [1] which show a large reduction of the issues of Italian loans abroad in 1929-30 compared with the preceding years. The amounts were, excluding issues

[1] Banca Commerciale Italiana : *Movimento Economico Italiano.* Milano, 1931.

Chart 30.

FOREIGN ISSUES AS PERCENTAGES OF TOTAL ISSUES IN U. S. A. AND U. K. BY QUARTERS, 1928-1930.



for refunding purposes : 1927 $162 million, 1928 $50 million, 1929 $10 million, 1930 $11 million. The issues of foreign loans in Italy, on the other hand, increased from $3 million in 1928 to $11 million in 1929 and $15 million in 1930. These figures refer only to loans. As a number of Italian shares were introduced on foreign stock exchanges in 1928 and 1929, it seems certain that Italy had a net import of long-term capital in 1929 and 1930 also. As it seems probable that Italy invested on short term abroad in 1927 and has later reduced her deposits abroad, it is doubtful to what extent the net import of capital was reduced.

Table XLII. — Domestic and Foreign Issues in Certain Countries 1928-1930.

	$ (000,000's)		
	1928	1929	1930
United States :			
Domestic issues	6,795	9,425	6,029
Foreign issues	1,320	759	1,009
Foreign as percentage of total	*16.3*	*7.4*	*14.3*
United Kingdom :			
Domestic issues	1,066	776	620
Foreign issues	698	459	534
Foreign as percentage of total	*39.6*	*37.2*	*46.1*
Netherlands :			
Domestic and colonial issues	131	96	123
Foreign issues	107	45	103
Foreign as percentage of total	*45.0*	*32.1*	*46.5*
Switzerland :			
Domestic issues	57	131	61
Foreign issues	18	21	60
Foreign as percentage of total	*24.0*	*13.9*	*49.6*

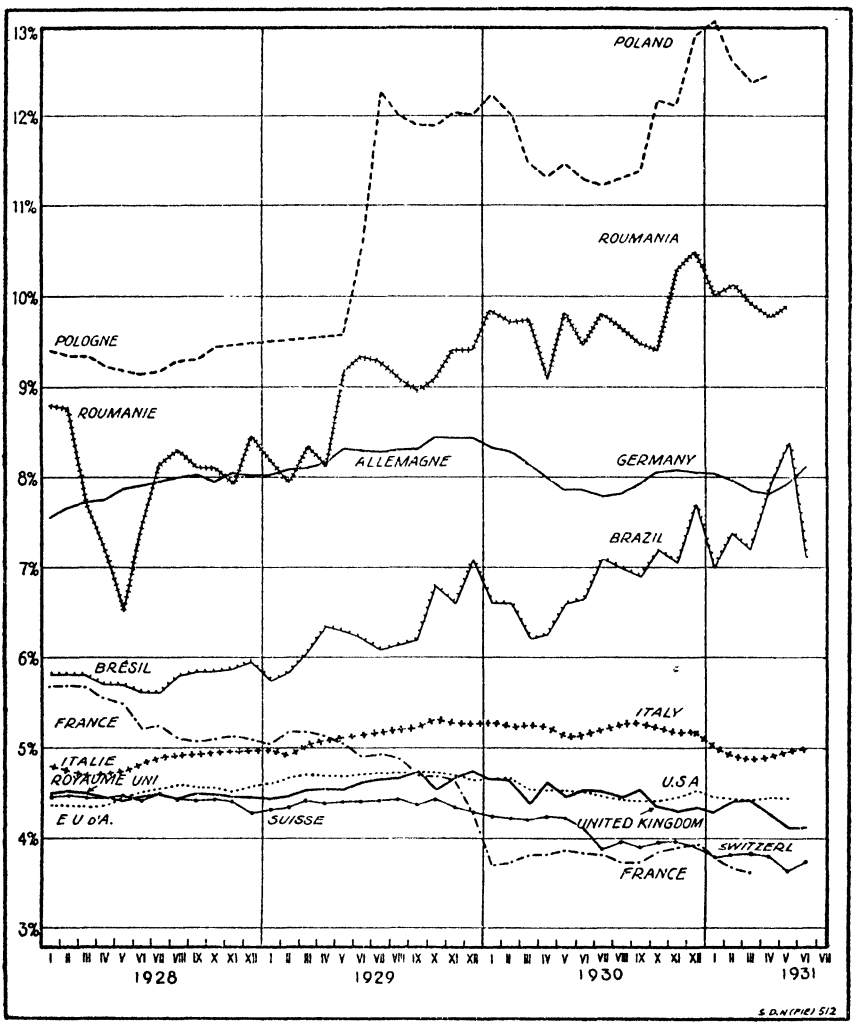
The Price of Capital.

Reference has been made above in Chapter I to the narrowing of the margin between the price of capital in borrowing and lending countries which took place during the period of extensive capital movements. This movement came to an end in most countries in the middle of 1928 and in Germany and Austria about one year earlier.

The changes in bond yields in a few countries from the beginning of 1928 onwards is shown in Chart 31. As the yield figures for different countries employed for the diagram are not comparable, the diagram does not illustrate the relative credit of the different countries, but only the changes in the price of long-term capital and the growing spread between yields.

Chart 31.

ACTUAL PERCENTAGE YIELD OF CERTAIN BONDS OR GROUP OF BONDS 1928-1931.



Brazil : 5 per cent funding, 1914.
France : Miscellaneous bonds.
Germany : Miscellaneous bonds, 8 per cent and less.
Italy : Rentes 3 ½ per cent.
Poland : Government Bonds.
Roumania : Government Bonds.
Switzerland : Railway Bonds 3 ½ per cent.
United Kingdom : Consols, 2 ½ per cent.
U. S. A. : 60 miscellaneous high-grade bonds.

From the middle of 1928 to the end of 1929 yields were rising, but less rapidly in lending than in borrowing countries (see Chapter V C). French yields indeed fell slightly. The discrepancy between the yield of bonds of borrowing and lending countries thus increased.

The increase in the supply of capital available for investment in bonds after the slump late in 1929 did not entirely reverse the situation. It is true that bond yields in certain borrowing countries fell and approached the slowly declining yields in lending countries, but in a number of cases (for example Poland and Roumania) they remained far above the level ruling one year earlier. Moreover, during the latter half of 1930 there was an almost universal increase in the yield of the bonds of borrowing countries, while that of the bonds of most lending countries was stable or declined slightly. In the first half of 1931, the margin between the yields first declined and then rose considerably under the influence of waning confidence in the position of important borrowing countries.

The Equilibrium of the Balances of Payment.

In view of the considerable and rapid changes in the volume and value of commodity imports and exports from many countries, as well as in international capital transactions, the question arises how the equilibrium of the balances of payments was maintained. When imports of capital fell off, countries exporting primary products were compelled to adjust their trade balance to the new situation, using their reserves of foreign exchange and gold as a cushion to take the first shock. This readjustment of trade encountered great difficulties, as the greater decline in the export prices of these countries and the relatively inelastic demand for their goods abroad reduced export values and turned an export into an import surplus.

The effect of the disturbances in the capital markets during the boom period of 1928-29 in causing important changes in the trade balance of several countries is very evident. The capital-exporting countries used a larger proportion of their capital for investment at home. This tended to increase imports and reduce exports — *e.g.*, of machinery. Imports of machinery rose in 1929 in the United Kingdom by 14 per cent, in France by 59 per cent and in Belgium by 38 per cent. In most of the borrowing countries of Europe, on the other hand, the effect on trade was the reverse. With the tightening of credit in the middle of 1929 the trade balance of Germany and a number of other borrowing countries in Europe changed simultaneously from passive to active.

Table XLIII. — Net Trade Balance 1928-1930.[1]
$ (000,000's)

	1928		1929		1930	
	Jan.-June	July-Dec.	Jan.-June	July-Dec.	Jan.-June	July-Dec.
Germany . .	— 324	— 81	— 69	+ 81	+ 120	+ 191
Lithuania .	— 2	— 1	—	+ 3	—	— 1
Poland. . .	— 63	— 33	— 48	+ 15	+ 9	+ 1
Hungary .	— 35	— 29	— 25	+ 21	+ 8	+ 6
Yugoslavia .	— 20	— 5	— 13	+ 18	— 2	— 1
Roumania .	— 23	— 9	— 24	+ 18	+ 6	+ 33

Certain of these countries are large exporters of agricultural products ; their exports in the second half of each year naturally exceed those in the first. The rich crops in 1928 and 1929, and particularly the bumper maize crops in Yugoslavia and Roumania in the latter year, contributed to the active trade balance. In Germany, Poland and Hungary, a reduction of imports and an increase in the exports of industrial raw materials and manufactures was, however, essential for the change.

The rich harvests, so valuable to these countries at the moment when the credit crisis became acute, were only one of the factors involved in the adjustment of their balance of accounts. In most of them there was a contraction in the domestic demand for consumption goods in 1929. In Germany, Poland and Hungary there was also a reduction in the imports of machinery. As the table shows, most of the above countries maintained an active trade balance in 1930. The increase of the excess of exports over imports in Germany in 1930 was partly due to the fact that German export prices fell much less than import prices. The activity of the German trade balance increased further in 1931 ; in the first half of that year, the excess of exports amounted to $229 million, against $120 million in the corresponding period of 1930.

The trade balances of a number of creditor countries have naturally moved in the direction opposite to that of the debtor countries mentioned above. The most outstanding example is France : while the French surplus of imports in 1928 amounted

[1] Merchandise only.

only to $60 million, it rose to $322 and $373 million respectively in 1929 and 1930. In the first half of 1931, it reached $273 million as compared with $165 million during the same period of 1930.

The trade of the most important borrowing countries in continents other than Europe did not react in the same way to the credit stringency. Their trade balance became more passive or less active in 1929. Thus the Argentine excess of exports fell from $210 million in 1928 to $64 million in 1929, that of India from $395 million to $263 million and that of the Netherlands Indies from $232 million to $138 million ; in Australia, the excess of imports rose from $10 million in 1928 to $106 million in 1929 and in Egypt, where there had been an excess of exports of $27 million in 1928, there was an excess of imports of $14 million in 1929.

Variations in crops and prices are to some extent responsible for these changes. In 1928, the value of the exports of the countries in question was larger than usual, owing to rich crops and fairly high prices, particularly of raw textiles. In 1929, crops were lower and prices and the value of exports falling.

At the same time, however, imports of industrial products rose. This is partly due to the fact that these countries give orders for import articles many months before they reach their harbours. It appears surprising at first sight that they could find means to increase their purchases from abroad in spite of the credit stringency. In certain cases the balance was settled in gold ; thus the Argentine, which had imported gold on a large scale in the two preceding years, and Australia exported considerable amounts of gold. Certain countries — amongst them Australia — drew upon their balances in London or New York and others were able to raise short-term credits. Nevertheless, the difficulties experienced in meeting the foreign obligations became more serious in the course of the year. Some countries, among them, as has already been stated, the Argentine and Australia, departed from the gold standard. It was only in 1930 that the trade balance of the non-European countries exporting primary products was adjusted through a reduction in imports. Nevertheless a few of them had to follow the example of the countries mentioned above and depart from the gold standard.

It is indeed a question whether it is possible for the debtor countries exporting food and raw materials to adjust their trade balance at a time when the prices of their main products are falling rapidly in relation to those of the goods forming the bulk of their imports, and when, simultaneously, the state of the capital market leads to a curtailment of their foreign borrowing

or even to an outflow of capital to creditor countries. In any case, it was the fact that a sufficient adjustment of this sort did not take place that in 1931 entailed or foreboded a suspension of the payments due on account of their foreign debts and thus precipitated an international financial crisis.

Summary.

The history of international capital movements during the last few years, as illustrated in the preceding pages, may be divided into four distinct periods.

The prosperity prevailing in the United States and a number of other countries during the first of these periods, comprising the year 1927 and the first few months of 1928, was favourable to international credit transactions. The volume of long-term international loans reached a record level and a diminution of the discrepancy between money rates and bond yields as between different markets took place. A number of borrowing countries — particularly those which had recently stabilised their currencies — employed part of the funds raised abroad for the reconstitution of their gold reserves and were thus able to extend their domestic credit supply. On the whole, a marked movement in the direction of greater economic stability took place. There were, however, certain exceptions to this rule. The capital market in Germany, in spite of the heavy capital imports into that country, was tightening when elsewhere credit was becoming easier.

The second period coincides with the United States boom proper, beginning during the second quarter of 1928 and ending with the third quarter of 1929. Its main characteristic is the rapid decrease in United States long-term lending abroad and the movement of short-term funds to New York, where high money rates prevailed. Capital exports from most other lending countries were adversely affected by local booms and as a portion of their reduced capital exports was attracted by New York, loans to most of the borrowing countries were curtailed. Political factors further prevented capital from flowing to certain of these countries. As a consequence, the spread between the yields of bonds of different origin increased. In settling annual interest and amortisation obligations contracted during the preceding period of easy credit, a number of borrowing countries were obliged to reduce their demand for consumption and capital goods and to adjust their trade balance or to export gold. The resulting disturbance in price relations and trade movements was one of the main factors which led to the worldwide crisis in the last quarter of 1929.

The third period is relatively short—it comprises the last quarter of 1929 and the first half of 1930. The short-term capital attracted by the United States boom was withdrawn (the withdrawals had indeed begun even before the Stock Exchange collapse and may have had some influence in bringing it about), money rates fell and the discrepancy between rates in different countries were reduced. The reparation question was settled, a certain optimism was spreading and international capital markets were again opened to the main borrowing countries. There were thus certain signs of a return to the relative stability of the period preceding the boom.

But the fall in the prices of primary products continued unchecked and soon the credit of a number of borrowing countries, whose exports consist mainly of these products, was shaken. Moreover, pessimism deepened when the seasonal increase of production had come to an end in the early summer of 1930. A new contraction of capital movements thus took place. This marks the beginning of the fourth period which, at the time of writing, one year later, has not yet come to an end. Creditors have become unwilling to grant further loans. The weight of the existing debt charges of debtor countries has increased considerably through the decline in price levels. The export values of countries which are largely dependent on the sale of primary products have dropped to a low level. Thus, a heavy strain has been imposed on the balance of payments and on the gold reserves of these countries, and gold has been accumulating in the United States and France. The price of short-term and long-term capital has fallen in the lending, and increased in the borrowing countries.

The aggravation of the depression and the growth in unemployment has tended at the same time to increase public expenditure and to reduce public income and has thus created great financial difficulties and shaken the credit of those Governments and countries which are most in need of foreign capital. Social and political complications in 1931, to a large extent the natural outcome of the depression, have had a similar effect, and have even led to a flight of capital from countries which needed it to those which did not. Thus the increase in the spread between money rates seems to a large extent to be due to a growing sense of political insecurity. A general feeling of insecurity and instability has been prevalent and has formed the main obstacle in the way of a resumption of international credit transactions on a large scale.

Chapter VI.

FURTHER ANALYSIS OF THE DEPRESSION.

A. The Character of the Depression.

The essential characteristic of the present world economic depression is that a business-cycle recession occurred at a moment when structural changes and maladjustments had made the economic situation very unstable. The different aspects of this instability have been dealt with in Chapters I C and II above and need not all be touched upon again. It is, however, important to emphasise that certain tendencies which had contributed to this instability persisted after the beginning of the depression. The adaptations for which these tendencies called were not carried out, partly because the depression checked the incentive to invest new capital even for the purpose of adapting production to changing needs ; partly because tariffs were generally increased. Thus, for example, an extraordinary increase in import duties on cereals, and other measures designed to protect domestic prices, tended to maintain the existing forms of agricultural production. In the United States, Canada and many other countries, tariffs on manufactured goods were also raised.

In such a situation, where maladjustments and instability were tending rather to grow than to diminish, a business-cycle recession set in. This recession was especially violent in the United States, where the preceding boom had been very pronounced. In other countries, where no real boom conditions had prevailed, it looked at first as if the recession would be relatively mild. However, the unstable world economic position which had in some ways already been seriously shaken by the boom, was further disturbed by the recession. Hence the depressing tendencies increased in strength and number and gradually affected one country

after another. These tendencies were the combined result of the business-cycle recession in certain countries, the instability existing in 1928 and 1929 and the tendencies towards growing structural maladjustments noticeable in the same period.

The actions and reactions of the various factors mentioned above need to be analysed a little further. The business recession in 1929, like all previous movements of a similar character, involved a reduction in the demand for raw materials and a decline in their prices. This decline was more rapid than it would otherwise have been, owing to the tendencies towards over-production, the weakness of many of the existing monopolistic agreements and other circumstances which have been described in Chapter II B. For countries which concentrate on the production and export of raw materials, this price movement was of course a serious matter. The situation was aggravated by the fact that the price of crude foodstuffs also fell as a result of an over-production of certain products such as wheat which was to some extent of a purely accidental character. Owing to the inelastic demand for foodstuffs, a very small excess production is likely to bring about a considerable drop in prices. The important factor in the movement of the prices of staple foodstuffs in the short run was, however, not the inelasticity of consumers' demand, but the rapid contraction of the demand from merchants, whose stocks were falling in value. Owing to the slow decline of retail food prices and the relatively inelastic demand from consumers, the consumption did not to any considerable extent counteract the drop in prices caused by the contraction of the demand from dealers. On the contrary, the reduction in incomes would appear to have brought about a reduction in the demand for some of the more expensive foodstuffs. The drop in food prices was aggravated by the absence of any restriction of output. The individual farmer is unable, by a reduction of his output, to influence the prices at which he sells. Hence, contrary to the policy pursued by manufacturers, he naturally tries to meet falling prices by producing more rather than by producing less. The frequent increase of import duties on foodstuffs in most food-importing countries strengthened this tendency to maintain and increase supply, and thus contributed to the drop in price on the world market. Further, for special reasons, the world supply of wheat increased irrespective of the movement of prices.

It is quite possible that the prices of foodstuffs as a whole might have declined very little or only for a brief period had there been no general business depression. It is true that demand for most vegetable foodstuffs is relatively inelastic and that therefore a tendency towards over-production would in any case

have brought about a considerable temporary slump in prices. As a decline in cereal prices, however, leads directly to a cheapening of animal foodstuffs, the demand for the latter would have grown. Moreover, people who are accustomed to spend a certain amount on food will buy more animal foodstuffs, when they get their usual supplies of bread and other vegetable foods at lower cost. Hence a comparatively small shift from cereals to dairy farming might have been sufficient almost to restore cereal prices to the old relation to other prices without rendering dairy farming unprofitable. It may be, however, that profitable food prices could have been obtained only by a reduction in total agricultural production, brought about, possibly, by the transference of part of the farming population to manufacturing industries. As the economic depression made such transfers and shifts almost impossible, and as it further restricted the demand for certain foodstuffs, a severe drop in food prices was inevitable.

This simultaneous decline in the prices of raw materials and important crude foodstuffs could not but make the situation of countries largely dependent on the production and the export of such commodities very difficult. The value of their exports, which had been fairly well maintained up to the autumn of 1929, was subject to a sudden and heavy reduction, as explained in Chapter V D.

Such a sudden disturbance of international economic relations inevitably exercised a profound influence on conditions elsewhere. Unfortunately, a disturbance of another kind tended to have very much the same effect, and the combined influence of the two proved disastrous. This second disturbing factor was the sudden change in international capital movements. The world had adjusted itself to a continuous and, on the whole, a fairly steady movement of capital from certain wealthy countries to others, in Europe and elsewhere. Both these groups of countries had developed their production in accordance with the conditions of demand which resulted from this flow of capital. In some of the borrowing countries, the inflow of foreign capital had been particularly large in 1927 and 1928 and had led to a boom in construction and other branches of economic activity. By the end of 1928 and in the first nine months of 1929, this situation was radically changed as a result of the American boom. France also restricted her net exports of capital, and total international capital movements declined substantially. For a time, however, debtor countries were able to make use of the considerable floating assets which they had accumulated abroad, and their trade balances were at first relatively little disturbed. The situation changed in the autumn of 1929 and

still more in the beginning of 1930, when the American export of capital, after a temporary increase, again fell off. There seems to have been no increase in French lending, and the state of the balance of payments of the United Kingdom compelled a reduction in British lending abroad ; thus, the net total international movement of capital dropped to only a fraction of its normal proportions from the spring of 1930 onwards.

About the same time the full effects of the drop in the prices of primary products on the trade balance of several important borrowing countries which were large producers of raw materials and crude-food products made themselves felt. The pressure on the balance of payments of these countries consequently became intense. A severe credit reduction became necessary and the value of imports declined. Further, the investment activity in these countries, so largely dependent on an inflow of foreign capital, fell to very small proportions. Largely as a result of these conditions, considerable quantities of staple commodities were thrown upon the market, thus intensifying the drop in their prices.

But it was only after the summer of 1930 that the full effects of these changes in international capital movements on the economic life of countries dependent on primary industries made themselves felt. This fact confirms the experience that a brief interruption of long-term lending is not necessarily dangerous, as debtor countries can draw for a time upon reserves of foreign exchange and may be able to borrow on short term. A prolonged reduction of long-term lending, on the other hand, involves very serious consequences. History gives numerous examples of cases in which such changes in capital movements accompanied by a decline of export values have made it impossible for borrowing nations to keep their foreign exchange rates stable. Countries in which this happened recently were in most cases particularly sensitive owing to the existence of large foreign debts, involving a fixed charge in gold. Further, a lax financial policy during the boom period had in many cases seriously affected the State finances of these countries, as of many others.

Largely as a result of economic and financial difficulties, conditions became unstable in a number of countries. The credit of such countries, in many cases already impaired by the decline in their export prices, further deteriorated. Confidence in their general stability was shaken ; long-term borrowing was rendered almost impossible and short-term borrowing extremely difficult.

The effect of these developments on the lending nations and other manufacturing countries was also serious. Their

exports of manufactures to the impoverished countries dependent on primary products declined heavily and employment in their export industries fell off. To some extent this fall in their export trade was due to the increased duties and other impediments to the import of foodstuffs which they had themselves imposed. This policy, which restricted the world market for these commodities, tended to depress their prices and thus to reduce the purchasing power of food-producing countries. The exports of manufacturing countries were naturally affected thereby and, owing to the losses involved, the volume of savings and both the ability and the willingness to lend abroad were reduced. Under these conditions, the chances of profit from new investment became small and the volume of new investment tended to decline. A striking characteristic of this interaction of international economic relations is that it tended to reduce the value of investment in lending and borrowing countries alike. As will be further explained in the next section, this has been one of the most important factors in driving down prices in the last two years.

It was of course not only the trade between these groups of countries that was disturbed. The change in the relative prices of primary products and manufactured commodities also involved a dislocation of the domestic trade between different groups of producers. This was an important aspect of the second year of depression practically everywhere. As shown above, the decline in the purchasing power of the farming population was relatively small in 1929 ; in 1930, however, the situation was fundamentally changed and in most countries monetary purchasing power was reduced to about two-thirds of what it had been in 1928. According to an estimate by the United States Department of Agriculture, this happened also in the United States. The total value of the crops, on the basis of prices ruling on December 1st, was $8,600 million in 1928 and $8,700 million in 1929, and fell to $6,300 million in 1930. Although such figures do not give an exact measure of the changes in the purchasing power of farmers, they serve to show that their ability to buy commodities from other industries had been severely curtailed.

Such a disturbance in the exchange of commodities between different groups of producers is, however, probably rather less serious when these producers live in the same country ; the distress is less localised and the credit mechanism less violently disturbed. However, as the domestic exchange of commodities between farmers and other classes of society has been of great importance in almost all countries, the consequences of this disturbanee have been tremendous.

The violent decline in the wholesale level of commodity prices exercised a profoundly disturbing effect, as wages and retail prices have not fallen in proportion and the weight of debts and other contractual obligations has inevitably increased. Indeed, the heavy price decline, due to the circumstances described in this and the following section, has been not only one of the chief characteristics of the present depression, but also a major cause of its intensity.

The effects of reduced borrowings made themselves felt also in European borrowing countries, such as Germany, that export chiefly manufactured commodities. But the strain on the balance of payments in such cases has been less severe, up to 1931 at any rate, as the value of their exports has been much better maintained. Borrowing on short term, ultimately for the purpose of meeting the service of foreign debts, combined in many cases with unemployment and social and political unrest, led to a further loss of confidence abroad. Short-term borrowing became increasingly difficult, and at critical times sudden withdrawals of foreign and domestic liquid funds took place. The drop in prices, although it has affected export values less than import values, has nevertheless aggravated the situation in these countries.

The fact that the disturbances in international capital movements upset the equilibrium to so great an extent, more especially during 1931, was due to another factor in addition to the international trade conditions mentioned above. Even before the depression, the volume of international short-term capital obligations had reached much larger proportions than before the war, partly because of the extended use of the gold exchange standard. During the depression, as already observed, short-term lending to an increasing extent took the place of long-term lending and, as the total of outstanding international short-term obligations rose, serious misgivings were felt concerning the stability of the situation. With confidence thus weakened for this and other reasons and indesinently enervated as the depression proceeded, the outbreak of a financial crisis was threatened from moment to moment.

Great Britain, which continued to lend liberally on short term, had entered the depression with a relatively high and inflexible level of gold values, which affected her balance of payments and, to the extent to which the short-term loans were or became in fact uncallable on maturity, rendered the financial position of London less liquid than it would otherwise have been. France, the other great capital-exporting nation in Europe, which lent relatively little in the two years preceding the summer of 1931, had a substantially lower level of gold values and thus

added an ever-increasing accumulation of short-term foreign money and gold to its already large reserves. As a result of these factors, the balance in the leading money markets was upset in 1931 more easily than would otherwise have been the case.

Another factor which contributed to weaken confidence and increase the difficulty of maintaining the volume of lending operations was that certain countries had for a number of years been using foreign short-term loans for investment on long term ; moreover, a large part of the borrowings had been invested unproductively.

The lack of confidence both within and between the various countries is, to a very large extent, both an effect and a cause of the unfavourable economic conditions. That the primary explanation of the depression cannot be psychological may be seen, for instance, from the fact that in the United States and elsewhere both business conditions and international credit transactions were stimulated by the optimism prevailing in the first months of 1930. Pessimism returned only when fundamental economic tendencies towards a deepening of the depression made themselves felt. Pessimism has of course also been due to political and social difficulties, but even these are partly the result of the economic and financial disturbances.

The existence of surplus capacity and instability in manufacturing industries and in shipping has exercised an influence on the world economic situation similar to that exercised by the instability in primary industries and in international financial relations. These factors have been partly responsible for the sudden curtailment of new investments, after the beginning of the depression, and the low level at which investment has since remained : they have thus tended to aggravate the depression. It is not improbable, however, that the extraordinary severity of the present depression is to a larger extent due to the factors mentioned above than to the maladjustments in manufacturing industries which were described in Chapter II.

Another factor which has also tended to keep down investment activity is the general feeling of uncertainty created by the rise of import duties. In Europe, contrary to a common impression, duties on manufactures have been kept on the whole relatively stable, although the real weight of specific duties has grown as prices have declined ; but in important non-European countries increases in tariffs on such goods have been both large and numerous. The lack of balance in international price relations has also created difficulties in certain countries — for instance, Great Britain. In the United States, the wide use of instalment selling during the boom has probably had some

depressing effect on sales of expensive and durable goods in the last two years. Conditions in India and China have also in general reacted unfavourably on the world economic position. It is not necessary, however, to mention once again these various factors, which have been examined in Chapters II and V. The way in which they have affected the present depression is clear enough. Like the other factors discussed in this chapter, they have served to intensify a business-cycle recession which would have occurred in any case, although it would otherwise have been less worldwide in character and might have been chiefly confined to the United States and some other countries in which the ground had been prepared by a boom.

B. Monetary Factors and the Decline of the Wholesale Price Level, 1929-1931.

State of the Capital Markets.

In the analysis of the character of the depression in the preceding section, one aspect of the problem has been left out of account : no reference has been made to the way in which the various circumstances dealt with above brought about the violent decline in wholesale price levels.

A change in the distribution of purchasing power as between borrowing and lending nations or countries producing primary goods and manufacturing countries does not necessarily lead to a fall in the general wholesale price levels of commodities ; nor does partial over-production, as a rule, lead to a general decline of price levels. If the purchasing power of one country is reduced, and its demand falls off, other countries will have more purchasing power and their demand may rise. If too much of one commodity is produced, its price will drop but, to the extent that less money is then used to buy this commodity, more money is available for the purchase of other commodities and their prices will tend to rise. That this happens in many cases is amply proved by experience. For instance, in the last two decades before the war, rapid technical progress and severe maladjustments occurred in many fields, with the result that the prices of many commodities were falling; the general price level was nevertheless rising. Indeed, if the total of used purchasing power [1] in terms of money remains

[1] This term is used as synonymous with " total amount of purchases of commodities and services ".

constant, the price level[1] can drop only in proportion to an increase in the total supply of all commodities and services. A fall in price beyond this point is dependent on a reduction in total purchasing power used. Such a reduction often accompanies severe maladjustments of a structural or business cycle character. It must therefore be ascertained under what conditions this reduction occurs and under what conditions purchasing power is maintained and used — in other words, what is the relation between the maladjustments in industry and trade and the lack of balance in the monetary system which takes the form of a decline in the total of used purchasing power and a drop in commodity prices.

The turn of the business cycle, for whatever reasons it was caused, brought a reduction in the volume of investment in manufacturing countries. In borrowing countries, the fall in the influx of capital had already led to a restriction of investments. Further, when the stock exchanges had broken, shareholders lost money and many of them were forced to use a part of their incomes to cover these losses. The reduced value of shares for use as collateral served to restrict the volume of new loans ; loans in the United States on securities by persons or institutions other than banks fell off substantially. Thus the contraction of the volume of credit, although it did not at first take the form of reduced bank credit, involved a contraction of purchasing power and the wholesale price level tended to fall.

When the conditions of the capital market are balanced, the circulating capital which is made available in the process of production (for instance, amounts written off for depreciation of fixed assets) is again invested in production. In addition, that part of net income which is saved — *i.e.*, which is not used to purchase consumers' goods — goes to buy producers' goods : in other words, is used for real investment. Whenever total investment is too small — whenever the whole of available circulating capital and new savings are not used for actual investment — the total demand for commodities must necessarily fall short of the total value of output at previous prices and the wholesale price level tends to drop.

Once the sharp decline of prices set in, such tendencies were aggravated by a " buyers' strike ". Business-men decided to postpone purchases until a later date, with the result that available money was not used but temporarily kept on deposit. The balance between savings and investment in the capital market was also disturbed by the fact that falling prices and a

[1] The price level is here assumed to be measured by an index number where the weights correspond to the quantities produced.

realisation of the existence of profound maladjustments made the prospects for new fixed investments in many cases unpromising. Thus the demand for capital was still further reduced. As the depression proceeded, the existence of surplus capacity, which had been concealed by the previous boom, became evident in many industries, and the demand for further investments fell off rapidly.

Thus a lack of balance between available circulating capital plus new savings on the one hand and investments on the other caused the wholesale price level to move downwards. The reduction in purchasing power was reflected not so much in a reduction in note-circulation, or volume of bank credit which underwent only small changes, as in a reduced velocity of circulation. The exact manner in which the monetary mechanism worked is indeed of little consequence in the present connection. What matters is that the total purchasing power and its use was heavily reduced by the factors mentioned above. Great caution should be used in judging the significance of the small changes in the total volume of loans and investment by banks. At certain times credit transactions outside the banks play a large rôle. Further, bank credit may be used for other purposes than the purchase of commodities and services — *e. g.*, securities. It is only the purchasing power used for the former purpose which has a direct influence on the price level[1]. Thirdly, as already indicated, the velocity of circulation may vary. It is also important that, once the depression had started, a considerable part of the outstanding bank advances became frozen, and in many cases banks financed new losses sustained by their clients in order to prevent them from becoming bankrupt. It is quite possible that credits used for this purpose may have had no influence on the demand for commodities and thus have exercised no check on the fall in prices.

As demand for capital declined, interest rates naturally fell considerably (see Chapter V C above). Reductions in discount rates were accompanied by reductions in the open market rates. However, this cheapening of credit failed to stimulate demand to any considerable extent.

It will be observed that the decline in long-term money rates which are of fundamental importance for fixed investment was comparatively slow and insignificant in extent. From the third quarter of 1929 to the last quarter of 1930, they only fell by about a third of 1 per cent in the United States and the United Kingdom, by less than half of 1 per cent in Switzerland, but by almost 1 per cent in France. One reason why the decline

[1] Compare footnote on page 223.

was so small is probably that investors had for many years been used to considerably higher returns on their capital than before the war and had come to regard this high level as natural and normal. Hence they were averse from accepting a lower yield and preferred to keep their money on short term in expectation of some more promising future opening. In the second place, the depression itself and the uncertain political conditions in a number of countries created a widespread feeling of pessimism. Money which would ordinarily have been invested directly in industry — *e.g.*, through the purchases of shares or bonds — was left on deposit. It is true that the total volume of deposits was in most countries changed very little, but there was a relative increase in time deposits in commercial banks in most countries. Thus, demand deposits which serve as circulating media were reduced as the volume of trading and the price level declined.

The unwillingness of many capitalists to lend their money for investments at existing interest rates was of course also due to their feeling that conditions were insecure and risks great. A similar attitude on the part of *entrepreneurs* made them unwilling to borrow at existing rates for new investments. Thus investment declined.

Conditions of course varied widely from country to country. In some there had been a very great over-expansion during the boom period and the surplus capacity in certain industries was considerable. In others boom conditions had scarcely been experienced and an effective large investment demand — *e.g.*, for electrification and building — still existed when the depression had started. In such countries, demand for capital for new investment was naturally better maintained than in those in which considerable surplus capacity existed, purchasing power contracted far less and the depression was less severe.

The demand for capital for real investment is of course always subject to a considerable reduction when a business recession has started. But certain forms of investment have in some cases continued — *e.g.*, road building, construction and electrification. Unfortunately, during the preceding years, the developments on these lines had been so great in a number of countries such, for instance, as the United States, that the potential demand, once the depression had started, was relatively small. In other countries, the reduction of long-term borrowing abroad brought about a sudden contraction of new investment in these branches. The consequent rapid reduction of total investment is one factor which seems to be partly responsible for the disequilibrium on the capital market and the heavy decline in prices as well as for the failure of any tendency to increased investment to appear in 1931.

In order to check the decline in the volume of credit and

bring down the long-term interest rates, Central Banks did not confine themselves to reducing discount rates. Certain of them and many commercial banks, invested directly in bonds, thus putting money at the disposal of business and easing the money markets. From October 1929 to March 1930, the Federal Reserve Banks increased their holdings of United States securities by $386 million. After the latter date, the increase was, however, relatively unimportant.

The demand of borrowing countries for foreign capital was to a greater or lesser extent prevented from making itself felt on the capital markets of lending countries. Thus, to the reduction of the domestic demand for capital in the latter was added a reduction in the use of capital abroad. The result was that the disequilibrium of the capital markets was further accentuated and the decline in prices was aggravated. In other words, the reduction in international lending had a deflationary effect.

One other aspect of international finance should be mentioned in this connection. Just as within individual countries the preference for keeping money in a liquid form — *e.g.*, bank deposits — instead of investing it has had a deflationary effect, so the growing tendency to keep large liquid claims on the leading money markets has strengthened the tendencies to a drop in prices. This remains true, even though a policy aimed at increasing gold reserves instead might have had similar or even worse effects.

The fundamental causes, then, which have brought about the decline of the wholesale price level are obviously those which made for general instability and for sudden and considerable changes in the volume of investment, international capital movement, the exchange between manufacturing countries and other countries, etc. It was their effects which upset the equilibrium on the capital market[1]. The monetary system has proved unable to adjust itself to these changes and to maintain balance through sufficient reductions in interest rates, the purchases of bonds by Central Banks, etc. This is no new development. A business recession always brings some disturbance of the balance, but it has been extremely severe on this occasion owing to severity of the underlying fluctuations. In so far as these phenomena lay outside the monetary system, the causes of the price decline may be said to be due to non-monetary factors. On the other hand, it is conceivable that a greater flexibility in the monetary system could have kept the disequilibrium on the capital

[1] In the Memorandum prepared for the French National Economic Council by Professor Rist (*Journal Officiel*, June 30th, 1931) a different interpretation of these events is given.

market within narrow proportions and thus mitigated the decline of the price level. This, however, is a question on which competent authorities disagree.

The issue round which discussion has centred is to a large extent not whether the drop in prices is due to monetary and credit factors or production and trade factors, but to what extent the former could have been adjusted to the changes in the latter.

Gold Movements and Their Influence on Credit Policy.

There has been much discussion whether, and to what extent, the failure of the banking system to stimulate investment through more liberal credit policy was due to an insufficient gold supply or to a maldistribution of gold as between the different countries.

In Chapter II E it was pointed out that, in 1928, the surplus of gold over and above legal requirements was considerable, but that the larger part of that gold was to be found in the United States. In 1929, both France and the United States, under the negative influence of reduced net export of capital, continued to import large sums of gold, as seen from the following table. In the United States, the tendency was interrupted in October and November, but early in 1930 a new period of gold imports began.

Table I. — Net Movements of Gold in Certain Countries.[1]

Gold net imports (+) or net exports (—) balance

$ (000,000's)

Year and quarter	U.S.A.	U.K.	France	Germany	Argentine	Brazil	Australia	Japan
1929 I .	+ 98	— 7	+ 2	+ 3	— 21	+ 2	— 6	—
II .	+ 77	+ 17	+132	— 212	— 58	—	— 1	—
III .	+ 71	—143	+ 92	+ 84	— 29	+ 1	— 12	—
IV .	— 70	+ 59	+111	+ 20	— 60	— 1	— 37	—
1930 I .	+120	+ 56	+ 38	+ 57	— 1	— 24	— 71	— 88
II .	+103	+ 5	+ 42	+ 32	—	— 37	— 14	— 23
III .	— 37	— 11	+156	— 5	— 1	— 25	— 30	— 12
IV .	+ 94	— 27	+224	— 84	— 23	— 50	— 2	— 26

[1] Source : *Memorandum on International Trade and Balances of Payments*, 1927-1929, Vol. II.

The French import of gold continued with only a brief interruption in the spring of 1930. From the United Kingdom, on the other hand, where capital exports were maintained at a high figure, large quantities of gold left in the middle of 1929. Between October 1929 and April 1930 there was, however, a net inflow of gold.

The large German borrowings during the years 1926-1928 were accompanied by gold imports culminating in the second half of 1928 with the withdrawal of funds raised in the first half-year. A temporary weakness of the Reichsmark accompanied by heavy gold exports occurred in April 1929, when the success of the reparation negotiations was endangered, and again in the autumn of 1930 as a result of internal political complications. Except in these months, the Reichsmark exchange was steady and gold entered the country.

Other borrowing countries in Europe have not recorded large gold movements. A number of such countries in other continents, on the other hand, were compelled to export gold, in some cases to such an extent that their gold reserves were greatly depleted. Several have, as already mentioned, gone off the gold standard.

The Argentine gold imports, after the restoration of the gold standard in the autumn of 1927, came to an end in the middle of 1928, when the gold peso went to a discount. The discount rose in 1929 and heavy gold exports took place. With the closing of the Conversion Office in December, gold exports were discontinued and the currency depreciated. The fluctuations of the milreis exchange have roughly corresponded with those of the peso ; but there was no considerable outward movement of gold from Brazil until 1930. The Brazilian currency, it should be remembered, has not been on a true gold basis during any part of the period under review. Australia went off the effective gold standard early in 1930. In Japan, the embargo on gold exports was lifted in January 1930. Heavy gold exports immediately took place and continued during the greater part of the year, while the yen recovered steadily in value. The increase in the gold stock of the Bank of England in 1930 came largely from these countries, which had to give up the gold standard or a policy of stable foreign exchange.

As a result of these movements, the gold in excess of legal requirements was still more concentrated to the United States and France. The position in the summer of 1931 is seen in the following table :

Table II. — Surplus [1] *Gold in Certain Countries.*
(In millions of dollars.)

	June 1930	June 1931
Argentine	65	
Australia	71	
France	520	831
Germany	292	34
Spain	146	57
United Kingdom	269	336
U. S. A.	1,967	2,245
Total	3,330	

These changes in the distribution of gold are of course the outcome of the changes in the balance of payments (*cf.* pp. 97-98 above), themselves largely due to the contraction of capital movements and the inelasticity of the demand for a number of the crude products of agricultural and raw-material-exporting countries, which prevented the quantity of their goods purchased from increasing as prices fell. The consequent gold movements have necessarily limited the freedom of action of all Central Banks possessing little gold in excess of minimum requirements. A more liberal credit policy than that which has been actually pursued by Central Banks with little excess gold would have been possible only if the balances of payments in their countries had been in a different position — *e.g.*, if other countries had been able to increase their net capital exports or to turn their trade balance in a negative direction through credit expansion or through a lowering of import duties. The gold situation and the limits it has imposed on credit policy is only an expression of the fundamental factors which govern the balances of payments. It may be added, however, that, in the opinion of some writers, had the available supplies of gold been larger than was actually the case, the influence of strains on the balances of payments and consequent gold movements in the last two years might have been attenuated.

In this connection, the following passage from the second interim report of the Gold Delegation of the Financial Committee of the League of Nations is of special interest :

> . . . " There is a growing risk of disturbance by fluctuations in the invisible items of the balance of international

[1] The term surplus is here used in the same special sense as in Chapter II — *i.e.*, the surplus over the absolute legal minimum required. In fact, of course, some surplus must always be maintained.

payments, while the inelasticity of the visible trade is increased, not only by barriers of one kind or another impeding the international exchange of goods and services, but also by the inelasticity of wages. There has thus been a tendency in recent years for gold movements to be caused rather by such movements of funds than by normal changes in the volume of exports and imports. Capital can only be transferred in the form of goods or gold or claims to existing wealth, and when capital transfers are made with such rapidity as to allow insufficient time for their ultimate effect on the volume of the imports or exports of goods to make itself felt, a disequilibrium of the total balance of payments is likely to be caused which will give rise to gold movements. What is necessary for the normal working of the gold standard is that there should be a smooth flow from country to country alike of goods, services and securities. Only then can short-term capital perform its proper function of allowing temporary accommodation in such a way as to lessen and not occasion gold transfers.

" The sensitiveness of liquid capital, however, has been due not so much to its magnitude as to the unstable economic and political conditions to which we made allusion in our introductory remarks. There has been an inevitable flight of capital from countries in which currencies have been inflated and a repatriation after stabilisation was achieved. Capital has moved on account of political uneasiness from those parts of the world where the need for it was greatest to countries where there was already an excess of funds. It has been attracted not simply by the real needs of business, but by chance of quick profits from Stock Exchange speculation. Simultaneously, the normal flow of goods has been impeded by sudden changes in Customs tariffs, by the imposition of prohibitions, and by the innumerable measures which Governments (or industrial combines) have taken to shelter domestic markets against external competition. "

C. Recession Tendencies in Different Countries.

In previous chapters scattered remarks have been made regarding the situation in different countries during various stages of the depression. It may be convenient to deal with this question here in a more direct manner.

It is important to bear in mind that different parts of a single country may be as variously affected as different countries.

Conditions in agricultural districts differ markedly from those in manufacturing regions in the same country, and many manufacturing districts are much harder hit than others for a variety of reasons. For instance, the industries in northern England and Scotland, which are more dependent on external markets, have suffered much more than the industries in southern England, which work largely for the home market. The existence of important differences of this kind within the individual countries considered should be kept in mind in the following discussion.

It is unfortunately, impossible to measure directly the relative severity of the depression in various countries — for instance, by figures for the percentage reduction of the national income — as direct data of this kind are not available. It is only possible to draw somewhat tentative conclusions from information regarding production, trade, prices, unemployment, etc.

From a study of past periods of economic fluctuations it would appear that, the more violent the upward swing of the cyclical wave, the steeper and deeper the subsequent downward tendency. This phenomenon has also been observed in the period under consideration. In countries which enjoyed a pronounced boom in 1928 and 1929, a relatively severe slump has since been experienced. The maladjustments set up during the years of rapid expansion have been more serious than elsewhere and have called for subsequent liquidation and adaptation of a more profound character. This is certainly one reason why the slump in the United States has been so rapid and severe. It is possible that the development in Germany from the re-organisation of the currency in 1924 up to the end of 1927, which was characterised by rising wages and retail prices and by a rapid rationalisation and increase of productive capacity in manufacturing industries, also produced a lack of balance which called for subsequent adjustment, although the liquidation period was somewhat delayed by the good business conditions abroad in 1928 and the first half of 1929. On the other hand in Great Britain and many other countries, the absence of real boom tendencies during the last years before the depression partly explain why the percentage reduction in industrial activity and in consumption has been comparatively slight. It should be observed, however, that a small reduction under such circumstances may involve a depression as severe as in another country, in which the reduction from an exceptionally high boom level has been much greater.

The character of the basic industries of a country largely determines the nature of the depression in that country. Industries producing primary products, either crude foodstuffs

or industrial raw materials, have been specially hard hit and, hence, countries in which they play a large rôle have suffered more than others. Abundant evidence has been given above to show that they have been far more seriously affected than manufacturing countries. It is true that the majority of the latter have much more unemployment, but for several reasons it is impossible to judge the relative severity of the depression in different countries from unemployment figures, even if they were much more complete and reliable than they are.

For instance, in two countries which have suffered a similar reduction in the demand for their manufactured products, unemployment may be very different if the mobility of labour is greater in one than in the other. In some countries, for instance Japan and certain South-Eastern European countries, unemployed industrial workers have to a large extent returned to the farms and, although their addition to the output of agricultural products is probably small, they do not appear in the unemployment statistics. Secondly, a reduction of farm incomes to half the previous level, which has taken place in some cereal-exporting countries, is more serious than an increase of ten to twenty per cent in the unemployment among workers in manufacturing industries, even though from a sociological point of view the existence of widespread unemployment is one of the most tragic aspects of the present situation. It would indeed be a serious mistake to treat the present depression as only, or even principally, an unemployment crisis.

The terms on which countries producing primary products and manufacturing nations exchange their products have, as shown above, moved very much to the advantage of the latter. This can be regarded as further evidence that they have suffered less.

The different primary industries and the different manufacturing industries have of course been very variously affected, as has been indicated above in some detail. Rubber, wool, hides, wheat and coffee have dropped much more in price than other important primary products. This is one reason why British Malaya, Java, Australia, the Argentine, Canada and Brazil belong to the group of countries which have been specially hard hit in the last two years. Similar differences exist between the various semi-manufactured and finished commodities. Countries which are much dependent on the export of cotton and wool textiles have suffered more than those with a large export of electrical equipment, pulp and paper. It is also noticeable that animal-exporting countries, such as Denmark, the Irish Free State and New Zealand, have been in a relatively favoured position, at all events up to the beginning of 1931, owing to the

fact that until that time the percentage decline in the prices of animal foodstuffs was no greater than that of maize and oilcake.

Some economists attach great importance to a consideration of a third type. It is natural, they argue, that countries in which a balance between the different industries exists — for instance between agriculture and manufactures — are able to resist better than others the disturbing effects of a worldwide depression. In so general a form the validity of this statement is doubtful. It is difficult to see how one relationship between the various industries should be more natural or ensure greater stability than another. Obviously, however, countries depending only on one or a small number of industries suffer to an exceptional degree if their industry or industries happen to be severely depressed. Such has been the case of a great number of countries in Latin America and Africa. On the other hand, conditions have been favourable in certain countries with specialised industries which have been relatively little affected. The majority of European States have a varied economic life. Such countries have reached a degree of self-sufficiency as a result of which disturbances in the outside world, acting on their foreign trade, affect them relatively little. During the present depression, the prices of commodities entering into international trade have in general fallen considerably more than have those of goods produced for the home market only. Hence countries for which foreign trade is of great importance, such as Great Britain and most extra-European countries with a specialised type of industry, felt the effects of the slump more quickly and more acutely than most others. For Japan, the sale of silk to the United States is of very great importance. As a result of the huge growth in consumption in the latter country during the last decade, the output in Japan was doubled and was expanding rapidly when the depression suddenly cut down the American demand. As the Japanese farmers could not readily reduce their output, prices dropped very low with grave consequences for the whole economy of the country. On the other hand, France, for instance, where foreign trade plays a relatively small rôle, has long been very little affected by the disturbances in economic conditions elsewhere.

The following table shows the percentage reductions of the value of exports in 1930 compared with 1929 in the ten countries in which the greatest reduction has been recorded. [1]

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[1] Figures for 1930 for a number of small countries, many of which have suffered acutely, are not yet available. Were statistics available for all countries, the composition of this table might be slightly altered.

They are all countries which have suffered severely from the depression, to a large extent certainly as a result of the fall in the foreign demand for their export goods. On the other hand, most of the countries which have reduced their export values by only 10-15 per cent have fared relatively well.

Table III. — Percentage Reduction of the Value of Export Trade in Certain Countries. [1]

(from 1929 to 1930.)

Country	Fall in %
Chile [2]	— 42.1
Egypt	— 38.5
Argentine	— 35.6
Japan	— 31.9
Union of South Africa	— 30.7
Brazil [3]	— 30.6
British Malaya [3]	— 28.9
U. S. A.	— 26.7
Australia [3]	— 26.3
Canada	— 25.1

These considerations apply of course only in cases where the original disturbances have come from outside. In the United States, where the disturbing cause — a violent boom followed by a recession — was to be found within the country, the crisis has been severe even though its foreign trade is of such relatively small importance to the whole economy of this country and the effect of a reduced foreign demand for American goods relatively slight. Of course, in the same way, the relatively small importance of the American market to the majority of the other countries tended to protect these countries from the effects of the depression in the United States. These effects have, however, unfortunately been felt through other channels than trade in commodities — namely, through financial factors.

It is noticeable that amongst the countries which have most successfully resisted the repercussions of the depression are the small group of low-tariff countries in Europe — Belgium, Holland and Scandinavian countries whose domestic markets are the least sheltered against the varying forces of international competition.

Of great importance for the position of each individual country

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[1] Source : League of Nations : *Memorandum on International Trade and Balances of Payments*, 1927-1929, Vol. III, page 9.

[2] Exclud ng sh ps' stores.

[3] General trade.

has naturally been the situation of its chief customers. Countries selling largely to others which have been seriously affected have tended to suffer, while those whose customers have enjoyed favourable conditions have in general been able better to maintain their economic activity. It has been shown in the last chapter that manufacturing countries which sell largely in the European markets have on the whole resisted better than those exporting chiefly to other continents.

In this connection it may be mentioned that the tariff increases which have occurred in recent years, and which have been especially important in the case of cereals in Europe and manufactured goods in North America, have exercised a very profound influence on the exports of certain countries.

A somewhat different question may now be considered. As already described in some detail, borrowing countries have been adversely affected by the reduction of international capital movements. The interest level in these countries has been moved upwards, or a declining tendency counteracted, and a sudden restriction of investment activities has been necessary. In capital-exporting countries, on the other hand, the decline in rates of interest has been intensified. It is a special feature of this development that the balance of payments of the former countries has tended in a negative direction and that credit restrictions have, therefore, been necessary. In some of the lending countries, on the other hand, the balance of payments has tended in a positive direction and, consequently, the reserves of foreign exchange and gold have grown, thus counteracting the tendency towards a decline in the volume of credit. On the whole a tendency towards a positive balance of payments during times of depression is favourable to the country concerned, although the extent to which it affects credit conditions in the way just indicated depends on the domestic credit policy pursued.

Such a tendency towards a positive balance may of course be caused by circumstances other than a reduction of lending abroad. The existence of relatively low price and wage levels in terms of gold, for instance, after currency stabilisation, exercises an influence in that direction until price conditions have become assimilated to those in other countries. Such has been the case in France and Belgium. It has already been pointed out above that this is one reason why the foreign exchange and gold reserves of France have been growing. Secondly, a special expansion in the export industries just before the depression may tend to increase exports more than imports, as was the case in the years 1927-1929 in Sweden, and this may exercise a similar influence on the foreign exchange reserves. Owing to the fact that the British price and wage levels in terms of gold

have been relatively high, the position of Great Britain has been quite different.

The existence of relatively low retail prices and wages has had a stimulating effect on conditions in France and Belgium for yet another reason. The upward adjustment of those values has had a stimulating effect similar to that produced by a mild inflation. In such circumstances, the arrival of a depression may check the upward movement of prices while these are still at a relatively low level compared with other countries and thus create favourable competitive conditions. On the other hand, some recession must be expected when a credit expansion ceases, as was the case in Hungary towards 1929. This may have been an aggravating factor in the Hungarian situation.

In certain countries the currency has depreciated considerably in value, and the reduction of the price level has thus been kept within more narrow limits than elsewhere. This no doubt has tended to mitigate the depression in Spain and perhaps in some countries outside Europe. On the other hand, monetary conditions of this sort have tended to reduce foreign confidence, to check the inflow of foreign capital and to exercise an unfavourable influence in certain other respects.

Another factor is closely connected with the more or less intense business activity prevailing during the years before the depression. In some countries the need of further investment in houses, roads, electrification, etc., was comparatively small when the depression arrived, as such investment had been very large in the preceding years. Such was the case, for instance, in the United States. In Germany also, capital investments in manufacturing industries up to 1928 had been considerable and capacity had been so much increased in almost all directions that the need for new investment at existing interest levels was largely met ; although the situation with regard to houses and roads was probably different from that in the United States. In Germany, however, the restriction of the supply of foreign capital led to a sudden reduction of investment irrespective of the conditions of demand. In France, on the other hand, the devastations of the war had created a great need for investment during the years immediately following 1918. Later on, monetary difficulties and other circumstances restricted investment activity, and the potential demand for such investments in 1929 was consequently great. This has tended to maintain the volume of investment all through 1930 and even in 1931 in spite of the counteracting forces set in motion by the depression, as may be seen from the figures for production and imports of manufacturers' equipment. In other words, the existence of a need for investment tended to mitigate the depression in France.

This was also the case in a number of other countries where, as described in the last chapter, construction had been restricted for a variety of reasons in the preceding years. Further, in many countries, in the production of motor-cars and road building a temporary saturation point had not been so nearly reached as in the United States, and investment in motor-cars and roads continued to expand.

Finally, the flexibility and adaptability of the economic systems of the various countries have differed greatly. In some, the flexibility both of prices and wages, the mobility of labour, and the adaptability of manufacturers and farmers have all proved greater than in others. The extent to which their economic life has been affected by the disturbing influences of the world crisis has of course varied accordingly. This question will be further discussed in the last section of this chapter.

The order in which the individual countries have felt the depression may now be examined. On this subject also numerous observations have been made in previous chapters. These may be briefly summarised as follows :

In a number of countries, a severe recession was experienced in the latter half of 1929 ; in others in spite of the violent fall of the stock exchanges, the drop in world market prices, etc. — the decline in production only began in 1930. The former group of countries has in general played the more active rôle in spreading the depression. This group comprises three types of country : (1) manufacturing countries such as the United States and Germany, where for domestic reasons an investment boom was succeeded by a recession ; (2) the countries producing vegetable foodstuffs, where tendencies towards over-production, under the financial conditions existing in the autumn of 1929, brought about a rapid decline in the prices of foodstuffs : as typical examples may be mentioned Australia, the Argentine, Brazil, Canada, some Balkan countries and Hungary ; (3) countries producing raw materials, where a similar price movement was called forth by the reduction in demand for raw materials which accompanied the downward turn of the business cycle, and perhaps also by certain tendencies towards over-production. Among such countries were Bolivia, British Malaya, Chile, Finland and Peru. Some countries might be placed under both the second and third headings. This is true, for instance, of Australia, India, the Central American countries and large parts of Africa, Asia, Oceania and South America.

The reasons why the depression in these countries has become so severe has been touched upon in the present and preceding sections of this chapter. Other countries occupying a more secondary position were unable to withstand the forces at work,

and were dragged into the depression one after another. Some of these, such as Great Britain and Japan, were peculiarly sensitive ; others, like France and Scandinavia, showed greater powers of resistance. Even in the latter group of countries, however, the crisis in the summer of 1931 was severe.

Uniformity in business conditions such as prevailed in the summer of 1931 is a rare phenomenon, as mentioned in Chapter III. It was not so complete even during the post-war crisis in 1920-1922, and far less pronounced during the major trade fluctuations before the war. The explanation of this recent uniformity is probably that the forces making for business depression have been unusually numerous and strong, while the power of resistance has been relatively weak, owing to the tendencies making for instability in the world economic position in the years preceding the depression, to which reference was made in Chapter II. Further, for a variety of reasons the world is much more an economic unit than it was before the war or during the post-war period of disorganisation.

On the whole the second group of countries, which came into the depression late, suffered little during 1930. Towards the end of that year, however, and in 1931, the rate at which the slump was proceeding in these countries does not seem to have been lower than elsewhere.

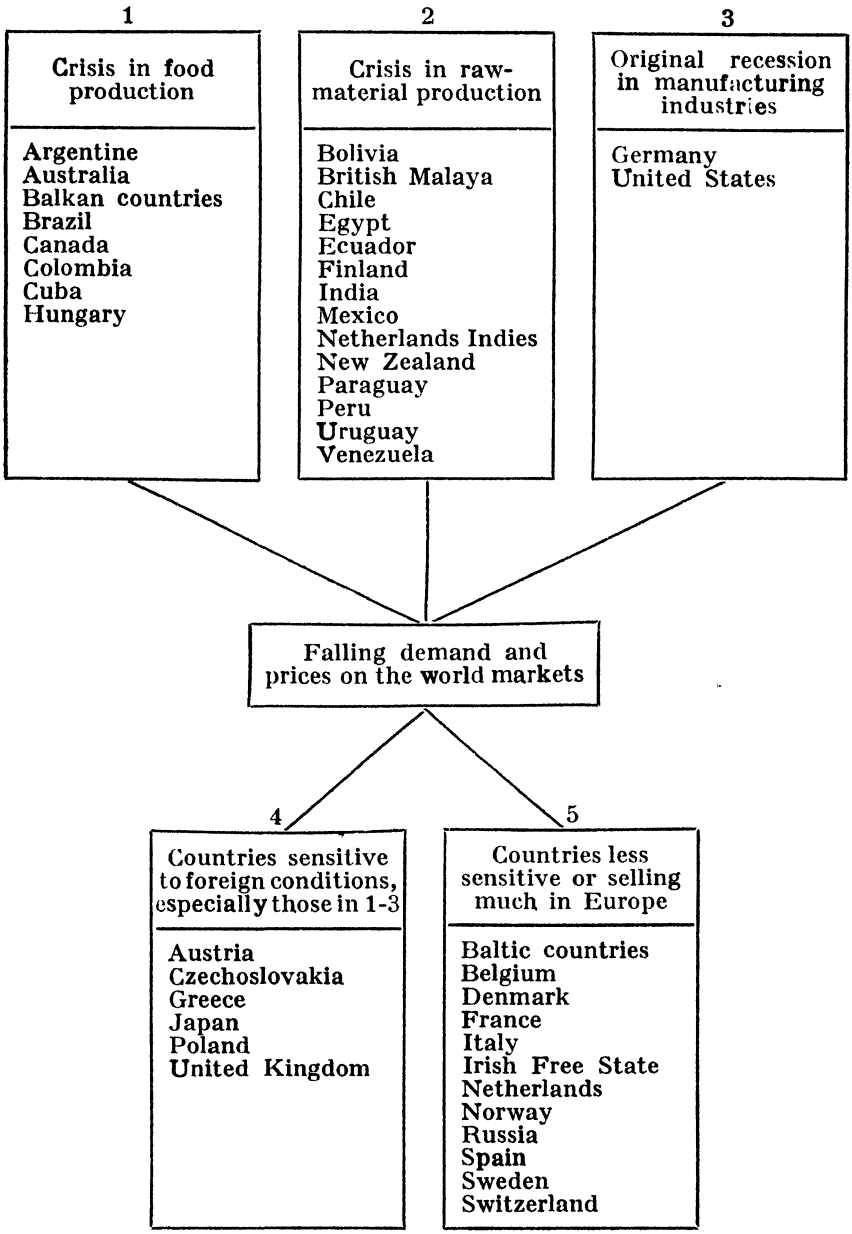
An attempt has been made in Chart 32 to illustrate some of the fundamental relationships between the various countries with regard to the spread of the present depression. Countries falling under the three first headings may be called " foyers de crise ". Some countries can just as well be put in one group as in another and have, therefore, not been mentioned at all on the graph — *e.g.*, South Africa, Portugal, Turkey and the Central American States.

Russia.

The position of Russia has been peculiar. The radical change in the Russian economic system has rendered this country relatively independent of conditions abroad. The absolute level of production costs and prices in terms of gold in Russia, as compared with those in other countries, need have no influence on her foreign trade. Reductions in world market prices, if they affect all goods uniformly, naturally do not affect the terms on which Russia trades with the world. If she sells at declining prices it matters little so long as she can buy at prices which drop as much. Only to the extent that the goods she imports — chiefly manufactured commodities — have dropped less in price than the goods she sells — chiefly wheat, oil, skins and furs, timber and wooden goods — has she been adversely affected by conditions in other countries. While it is obvious

Chart 32.

RECESSION TENDENCIES IN DIFFERENT COUNTRIES.



that Russia under the present economic system is less sensitive to trade fluctuations elsewhere than she used to be, it should be kept in mind that, owing to the preponderance of agriculture, business conditions in Russia were relatively little affected by conditions abroad even before the war. (See Chapter VII.)

As already mentioned, the increase in Russia's foreign trade in the last two years has had a double influence on economic conditions elsewhere. On the one hand, her reduced imports of raw materials and increased exports of certain foodstuffs and crude materials have intensified the slump in the price of these commodities. On the other hand, her large purchase of machinery and other manufactured goods has tended to maintain production in certain industries in other countries. While it is clear that the favourable and unfavourable effects of this increase in Russian trade have been very unevenly divided between different countries, it is difficult to estimate the effect which, on balance, this change has had on the depression in the world as a whole.

China.

The position of China, like that of Russia, has been of a somewhat special character. China is the only important country on a real silver standard, and the spectacular drop in the price of this metal has had a serious effect on her international economic relations.

The trend of silver prices has been downward for the last sixty years. While at the beginning of the last century the ratio of the price of silver to gold was about 1 : 15 and remained very stable up to the 'seventies, it moved rapidly against silver when a number of countries went over to the gold standard in the course of that decade. By the end of the century, the ratio was about 1 : 33 and, by 1913, 1 : 37. This movement was interrupted during the war with the decline in the value of gold and the active European demand for silver with which to pay for goods supplied by the Eastern countries. By 1920, the ratio to gold was 1 : 15. In the following years, however, silver prices dropped almost without interruption and the downward movement was intensified. In February 1931, the price of silver was about one seventh of that ruling eleven years before and its ratio to gold approximately 1 : 77.

Chart 33 shows the index of silver prices in London since 1924 as compared with the index of wholesale prices in the United Kingdom.

To explain this dramatic fall in silver prices it is necessary to study the conditions of supply of and demand for silver. First, it should be noted that the volume of production has

increased considerably since pre-war days. While in 1913 and in 1920-1922 the annual production of the metal was approximately six million kg., it has fluctuated around eight million kg. since 1926. Between 70 and 80 per cent of the total silver produced is a by-product of other metals (lead, copper, zinc, gold). This naturally makes the supply rather inelastic — *i.e.*, little sensitive to changes in silver prices. A second source of supply in recent years has been the sale of old silver coins by countries which have abandoned the silver standard or reduced the quantities of silver in circulation. During the past four years such sales of old coins amounted to about 22 per cent of the silver mined.

This increased supply has been met by a falling demand, as the use of silver as money was reduced when India, Persia, Indo-China, Siam and other Governments replaced silver coins by metal or lowered their silver content. Further, India has been replacing token rupees by notes. Further, the use of silver in the arts has proved to be inelastic. It was affected unfavourably by the competition of many new alloys and by a declining popularity of silver in jewellery.

These circumstances go a long way towards explaining the drop in the value of silver. It affected the economy of China in a double fashion. Depreciation of the stocks of silver involved certain direct losses for their owners ; this of course, was felt by British India and some other oriental countries in the same way. In the short run, however, it had little effect upon their purchasing power, as most of the private stocks consisted of silver ornaments, silverware and jewellery, which, although representing past savings, have probably a far greater sentimental than market value and are not likely to be offered for sale except under the pressure of penury.

Secondly, the drop in silver was accompanied by a decline in the Chinese exchange ; in other words, the Chinese tael depreciated in comparison with gold. The tendency of the price level, which had risen very little during the war, was clearly upwards, as may be seen from the table below.

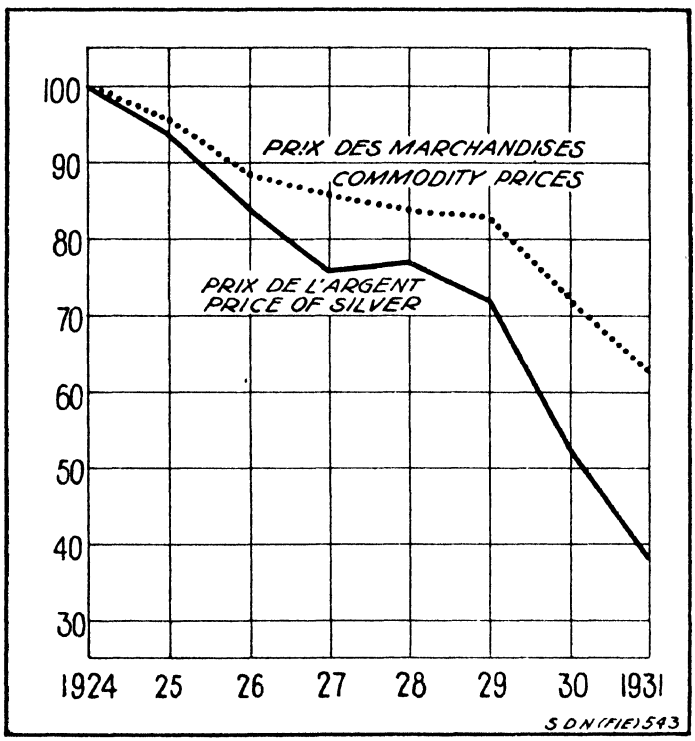
Table IV. — Wholesale Price Index in North China.[1]

1926	100
1927	103
1928	108
1929	111
1930	116
1931 (1st half)	123

[1] *Nankai Weekly Statistical Service*, Nankai University, Tientsin.

Chart 33.

WHOLESALE PRICES IN THE UNITED KINGDOM AND PRICE OF SILVER.
(Base 1924 = 100.)



This rise in prices exercised a stimulating influence on industry and trade. In spite of grave political disturbances, international trade, although irregular, was well maintained up to 1929.

Table V. — Index of Imports and Exports.
(In gold value : 1913 = 100.)

	Imports	Exports
1913	100	100
1926	203	220
1927	167	212
1928	201	233
1929	192	216

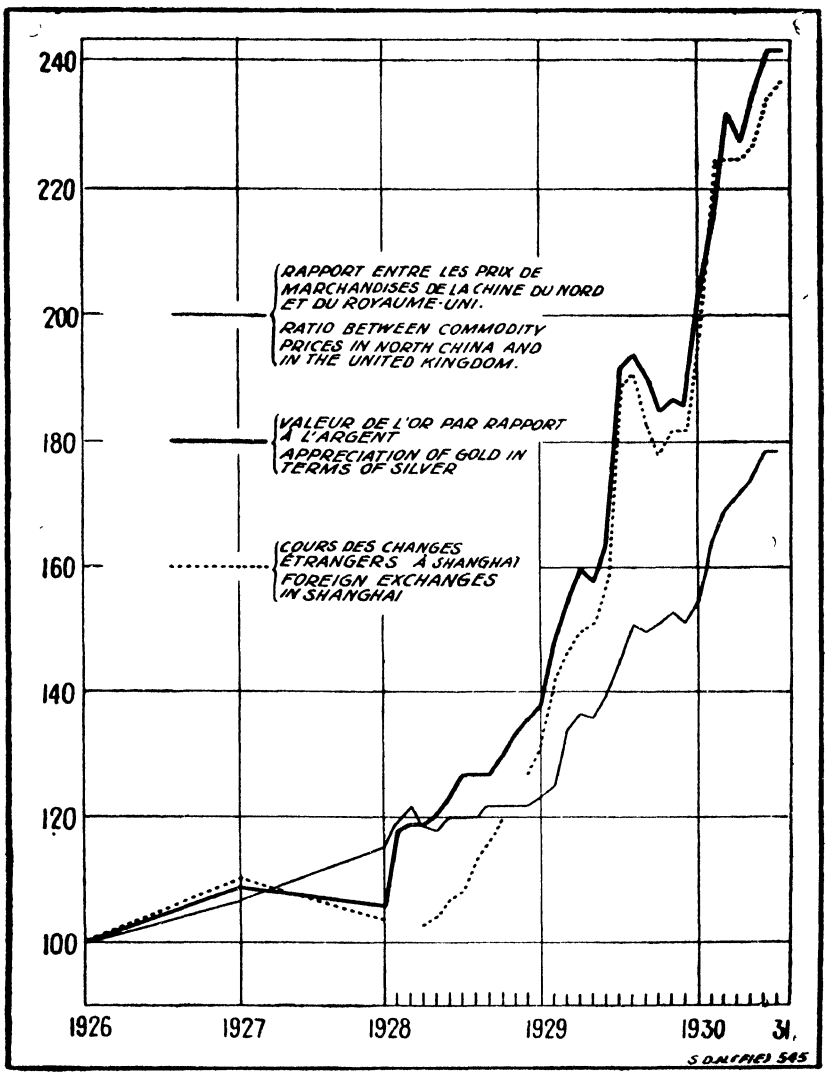
After the beginning of the world depression, the decline in the price of silver was accelerated and the Chinese exchange rates fell. This decline was no longer accompanied as in the preceding years by a corresponding rise in commodity prices. Wholesale prices continued to rise, it is true, while prices on the world market in terms of gold fell. The relative rise in Chinese prices, however, fell much short of the rise in the foreign exchanges, as may be seen from Chart 34.

This sluggish movement of commodity prices in China, which in the interior of the country was almost certainly more pronounced than the chart indicates, made prices on the world market relatively high in Chinese currency. This was very much the same phenomenon as occurred in a number of countries with depreciating paper currencies during and after the war. Naturally, such a development tended in some measure to stimulate exports and reduce imports. At the same time, the general rise of the price level tended to mitigate the influence of the world depression on Chinese economic conditions, and thus tended to maintain a larger volume of external trade than would otherwise have been possible — *i.e.*, to offset in part the factors making for decline.

The value of Chinese exports in terms of gold seems to have dropped by a little more than one-third in 1930, while imports declined by about one-fourth. In view of the fact that China exports chiefly raw materials, the prices of which have declined more than those of her imports, it is difficult to say whether the volume of exports or of imports has declined the more. In any case, the Chinese trade figures have altered in very much the same way as those of many other exporters of primary products, and the influence of the monetary factors mentioned above cannot have been great in 1930. Whatever restrictive influence on the Chinese imports of foreign commodities they

Chart 34.

RATIO BETWEEN WHOLESALE PRICES IN NORTH CHINA AND THE UNITED KINGDOM, RATIO BETWEEN THE PRICE OF SILVER AND GOLD AND PRICES OF FOREIGN EXCHANGE IN SHANGHAI.



Sources : *Nankai Weekly Statistical Service.*
The Board of Trade Journal.
The Economist.

may have had has been due, not to the drop in silver as such, but to the failure of domestic prices to rise equivalently. Chinese foreign trade is only 2½ per cent of total world trade, and the small reduction — if, indeed there was a reduction — of China's imports owing to the drop in the price of silver can scarcely have proved a factor of any major importance operating towards an intensification of the world depression. In this connection, it may be observed that the exports of Japan and the United States to China have fallen off by about the same percentage as their exports to other countries. The decrease in the exports to China from the United Kingdom, however, was considerably larger. On the other hand, it is probable that certain countries, such as India, the exports of which compete to some extent with Chinese goods on the world's markets, have been adversely affected by the depreciation of silver.

D. Relative Changes in Producers' and Consumers' Industries.

Changes in business conditions are always to some extent due to a lack of balance between production and consumption of commodities or services. There is a widespread popular belief that a lack of balance of a very simple sort developed during the years before 1929 and led to the present depression. The argument is as follows :

The capacity for production outran the capacity for consumption and thus it became impossible to sell the goods produced at profitable prices. Hence the only real remedy is to reduce productive capacity — *e.g.*, through a shortening of the working-day. It is not difficult to show that this opinion is not well founded. While the demand for certain commodities, such as wheat, may be strictly limited, the ability to consume goods in general is practically unlimited.

Others hold the view that a lack of balance developed between supply and demand, not for goods in general, but for certain classes of goods. During the years before 1929, it is argued, productive capacity increased too much in certain industries and too little in others. That this should happen to some extent is inevitable, as production is planned to satisfy a future demand which cannot be accurately forecast. Too much capital and labour was drawn to certain industries in which consequently capacity could not be fully utilised. This reduced total output and total national income and thus to a greater or less extent the demand for all commodities. As a result, surplus capacity

eventually appeared in other industries also. One reason why too much capital went into certain channels was that the effect of rationalisation on productive capacity only became evident some years after the majority of manufacturers had begun to rationalise their plant and organisations. Thus not long before the outbreak of the depression it became apparent that the productive capacity of certain important industries had been much increased in a number of countries owing to the policy of rationalisation pursued simultaneously by the manufacturers in those industries. They had all at the same time taken measures to increase the effectiveness of their plant, but the consequent increase in the capacity of these industries only became evident a couple of years afterwards ; in many countries not long before the present depression. Among economists who hold this view opinions vary, however, regarding the actual way in which investment was misapplied. Some consider that capacity had been too much increased in the older industries for the products of which demand could not be expected to increase very largely. Others believe that too much capital was invested in new industries, producing motor-cars, wireless apparatus, etc., as the demand for such durable consumers' goods was inflated through profits from stock-exchange speculation. Others again assert that there was a disproportionate investment in industries, whether new or old, which were most prosperous during the boom.

A special form of the theory that investment was over-conservative is that savings had grown more rapidly than the need for new investment, and that in consequence the long-term rate of interest should have fallen considerably. Had interest rates been rapidly reduced, capital would have flown into industries requiring large capital investments, and relative commodity prices would have changed in such a way that the increased output of these industries could have been sold at profitable prices. For instance, the demand for houses and flats would have been much greater had the rent been calculated on the basis of a 4 % rate of interest instead of 6 %. In fact, over-optimistic entrepreneurs borrowed new savings at the higher rate of interest and invested them in a way that would have been natural had there been a smaller supply of new capital. Hence capacity in some industries came to exceed demand and could not be utilised.

A more refined version of the over-production theory is stated in terms of supply of and demand for consumers' goods, not goods in general. The proportion of the national income spent on consumers' goods, this theory suggests, was smaller during the boom period than the proportion of total output

represented by such products. Hence demand fell short of supply, stocks increased, prices declined, output was restricted, and business conditions in general affected. This theory, which seems to find some support in the fact that in many countries output of consumers' goods began to decline at an early stage of the boom, is to some extent connected with different forms of the over-saving theory, which is roughly to the effect that, at a certain period during the boom, part of the savings were not used either to buy producers' equipment and durable consumers' goods or to increase stocks of commodities. Hence savings were not used in full and purchasing power was less than it would otherwise have been.

The opposite theory, that savings were not too large but too small in comparison with the actual output of durable goods for equipment and for consumption, has also been widely held. Towards the end of the boom, according to this theory, the proportion of national income saved fell off in relation to the proportion of productive energy which was directed towards the manufacture of producers' equipment or durable consumers' goods. Hence fluid capital became scarce, short-term rates of interest rose to a high level and the demand for raw materials either for equipment or for durable consumers' goods fell off. Their prices began to decline and business conditions in general were affected.

Most of these conflicting theories, and all those which have been accepted by economists of repute, have something to do with the relation between the production of investment goods — *i.e.*, producers' equipment and durable consumers' goods — and the output of non-durable consumers' goods. In the present section, an attempt is made to throw some light on this question through a study of the production and prices of various classes of goods during the depression and the years preceding it. It is unfortunate that material throwing light on the other aspects of the problem — namely, the relation between savings and total national income — is not available. For many reasons the figures for savings deposits, issues of new shares and bonds, etc., are entirely inadequate for this purpose.

No attempt will be made below to verify any of the theories mentioned above or to discover an explanation of the recurrence of business cycles. For this task a detailed analysis of conditions during earlier cycles would be required. This volume is concerned only with a description of the course and phases of the present world economic depression and the reasons for its exceptional severity.

For the purpose of the following description of the principal changes in the morphology of production in recent years, it is

important to distinguish between producers' and consumers' goods on the one hand and between durable and non-durable goods on the other. By producers' goods are understood manufacturers' equipment and materials required for the production of this equipment. Consumers' goods are both materials for the production of consumers' goods and finished consumers' goods, which can be either durable (motor-cars) or non-durable (food). Savings are invested in durable consumers' goods and in manufacturers' equipment, but can of course be used also for an increase in the stocks of any kind of commodities. The classification is thus as follows :

I. Producers' goods.
   A. Materials for the production of capital equipment (*e.g.*, iron and steel).
   B. Manufacturers' equipment (*e.g.*, machines).

II. Consumers' goods.
   A. Materials for the production of consumers' goods (*e.g.*, cotton, wheat).
   B. Finished consumers' goods.
      1. Durable (*e.g.*, clothing, watches).
      2. Non-durable (*e.g.*, food).

Composite indices of industrial production which group together producers' goods on the one hand and consumers' goods on the other, are available for Germany, Poland and Sweden [1]. For other countries, such as the United States and Great Britain, recourse must be had to indices for individual industries. Iron and steel are the principal raw materials used in manufacturing producers' equipment. The production of pig-iron has long been taken as a fairly representative index of the equipment industries in general. The value of this index has decreased in recent years, largely because of the fact that steel is to an increasing extent being produced from scrap. Secondly, a large proportion of the steel produced goes to the manufacturing of motor-cars. Nevertheless, the iron and steel industry reflects better than any other the output of producers' goods. The indices for this industry may be completed, for example, by indices for the engineering and timber industries.

It is more difficult to find a representative index for the

[1] For details concerning the production indices, see the *Statistical Year-Book of the League of Nations*, 1930-31, Table 91, and the League of Nations *Monthly Bulletin of Statistics*.

production of consumers' goods. The motor-car industry may, for some countries, be taken as illustrating the output of durable consumers' goods. The textile trades in most countries represent fairly well what may be called the output of " semi-durable " consumers' goods ; it should be remembered, however, that these industries have been subject to considerable structural changes in recent years. The production of perishable consumers' goods may be studied from the indices for the food and drink industries.

An analysis of available material may now be attempted.

The articles included in the German index of production are divided into producers' and consumers' goods [1]. The annual (monthly average) indices for these two groups have varied as follows :

	1927	1928	1929	1930
Producers' goods . . .	97	100	106	82
Consumers' goods . .	99	100	94	86

That the expansion in the first group of industries was greater than in the second during the years immediately preceding the depression is confirmed by the fact that in 1927-28 the percentage of total investments in German manufacturing industries which went into producers' industries was no less than 72 per cent [2].

The development from quarter to quarter in 1929-1931 may be seen from Chart 35.

In the autumn of 1928, output began to contract in the consumption industries. Producers' goods industries did not follow suit ; important branches of production — *e.g.*, the iron industry — continued to expand until the middle of 1929.

Indeed in June, production in these industries was 18 per cent above the 1928 level. This was partly due to the fact that foreign markets were very favourable to Germany during that period. In the middle of 1929, the demand for capital equipment on the world markets slackened and real investment declined within Germany. Thenceforward the output of producers' goods dropped much more rapidly than that of consumers' goods. Figures for the utilisation of capacity point to the same conclusion. Statistics of persons wholly unemployed in other than seasonal trades show that the degree of unemployment was about equal in equipment and consumption trades in the middle of 1927 ;

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[1] The index comprises coal, iron, non-ferrous metals, building materials, soda, machines and textiles, motor vehicles, boots and shoes, porcelain, paper and board, pianos, watches.

[2] *Kapitalbildung und Investitionen in der deutschen Volkswirtschaft, 1924 bis 1928*, Institut für Konjunkturforschung, Berlin, 1931.

during the following year, it rose in both groups, but more in the latter. The rise in the two groups was parallel from the summer of 1929 until the beginning of 1931, when an improvement took place in the consumption trades, while the situation in the equipment industries became more and more grave. The building industry did not experience the usual seasonal revival and added a heavy contingent to the army of unemployed.[1]

A pair of indices showing the aggregate production of producers' and consumers' goods is also available for Poland.[2] The movement of these indices, which are adjusted for seasonal variations, may be seen from Chart 35 ; the annual indices, shifted to the base 1928 = 100, are as follows :

	1928	1929	1930
Producers' goods	100	99	79
Consumers' goods	100	94	79

Polish industry was most active in 1928. Since the beginning of 1929, there has been a downward movement, which was rather slow during 1929, but gathered speed in the first quarter of 1930 and again a year after. The equipment industries passed the peak a little earlier — at the end of 1928 — than the consumption trades, but the output of the former in 1929 fell by only 1 per cent as compared with 6 per cent in the case of the consumption trades. The subsequent variations have been considerably wider in the equipment industries. The aggregate fall from the 1928 level to 1930 was equal in both groups, but the output of the equipment industries dropped much more heavily in the beginning of 1931.

The relative changes in the output of equipment and consumption industries have been analysed by the Swedish Committee on Unemployment. The material used is comprehensive, covering practically all the industries of the country. The indices are, however, only annual and do not extend beyond 1929. These annual indices, based on 1915 = 100, are as follows :

	1927	1928	1929
Producers' goods	122	129	150
Consumers' goods	124	132	143

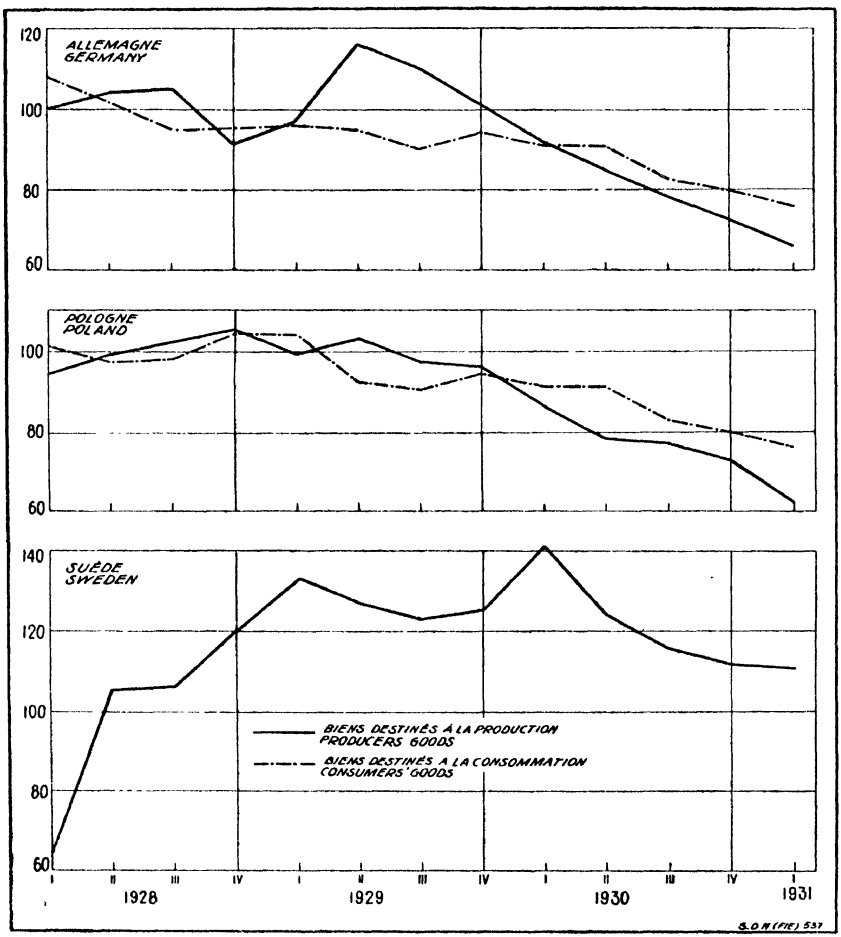
The equipment trades had been developing more rapidly than consumption trades since 1924, but not until 1929 had

[1] With regard to the trade in producers' and consumers' goods in Germany and certain other countries, see p. 196 above.

[2] The indices cover mining, metallurgy, engineering, chemicals, mineral manufacturing, wood, building, textiles, clothing, leather, food, paper, graphic arts.

Chart 35.

PRODUCTION OF PRODUCERS' AND CONSUMERS' GOODS, 1928-1931.
(1928 = 100.)



[1] Quarterly averages.
[2] Sources : Institut für Konjunkturforschung.
Polish Institute for Economic Research.
Svensk Finanstidning.

they advanced more since the basic year than the consumption industries. Calculations relating to the production per hour of work in both groups go to show that the process of rationalisation had been more intense in the equipment trades.

In the Swedish monthly index of production of the Svensk Finanstidning, the equipment industries are well represented, but most of the important consumption industries are not included [1]. The movement of production in the former may be seen on Chart 35.

General industrial activity in Sweden increased rapidly in 1929; the culminating point was reached in January 1930, but a high level of activity was maintained throughout that year. In the first half of 1931, production fell sharply.

To judge from the unemployment figures,[2] the drop in output has been much the greatest in industries manufacturing producers' goods. Between the spring of 1930 and the summer of 1931, there was little change in the figures for unemployment in the textile and tobacco industries, but in the iron works and the saw mills unemployment rose rapidly.

The Board of Trade indices for the output of certain important industries in Great Britain are given below (base, 1924 = 100).

	1928	1929	1930
Iron and steel and products . . .	102	114	89
Engineering and shipbuilding . .	113	121	117
Textiles	100	99	79
Food, drink and tobacco	102	106	105

The movement is shown in greater detail on Charts 36 and 37.

The peak in productive activity was reached as early as the second quarter of 1929 in the iron and steel industry, then in the food and drink industries, then in textiles, while for engineering the highest figure is recorded in the first quarter of 1930. Compared with the average level of 1928, the peak reached by iron and steel was somewhat higher than that attained by textiles, but the subsequent decline has been much heavier.

The percentage of trade unionists out of work in the metallurgical, the cotton and the drink industries has been as follows :

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[1] The index comprises *(a)* iron ore, iron and steel, wood, wood pulp, paper, superphosphates, and *(b)* tobacco manufacture and malt liquors. It will be noted that textiles are omitted.

[2] For statistics of unemployment see Table 11*b* on unemployment by groups of industries in the *Statistical Year-Book of the League of Nations*, 1930-31 ; the table has been supplied by the International Labour Office.

	March 1928	March 1929	March 1930	March 1931
Metallurgical industry	20.3	17.6	26.1	45.8
Cotton industry	9.2	11.5	27.1	36.5
Drink industries	6.0	6.7	9.5	13.0

It should be noted that unemployment decreased as between March 1928 and March 1929 in the metallurgical industry, but increased in the two consumption trades. In the two last years under review, unemployment has increased all round, and rather more in the cotton than in the metal industry.

The developments in the United States may be conveniently illustrated by the Federal Reserve Board indices of the output of four representative industries. The indices are adjusted for seasonal variations and have been converted to the base 1928 = 100.

	1928	1929	1930
Iron and steel	100	109	80
Automobiles	100	123	77
Textiles	100	107	85
Food products	100	99	95

These indices and Charts 36 and 37 show that the depression has been much heavier in the iron and steel and motor-car industries than in the others ; the low output of these industries in December 1930 is striking. The fluctuations in the food industry are relatively small. According to a recent estimate, the output of consumers' goods in the United States declined 21 per cent from the first half of 1929 to March 1931, while the corresponding decline in the output of producers' goods was 37 per cent. If motor-cars are excluded, the decline in the first group is much smaller.

The variations in factory employment shown on Chart 38 point to a similar conclusion.

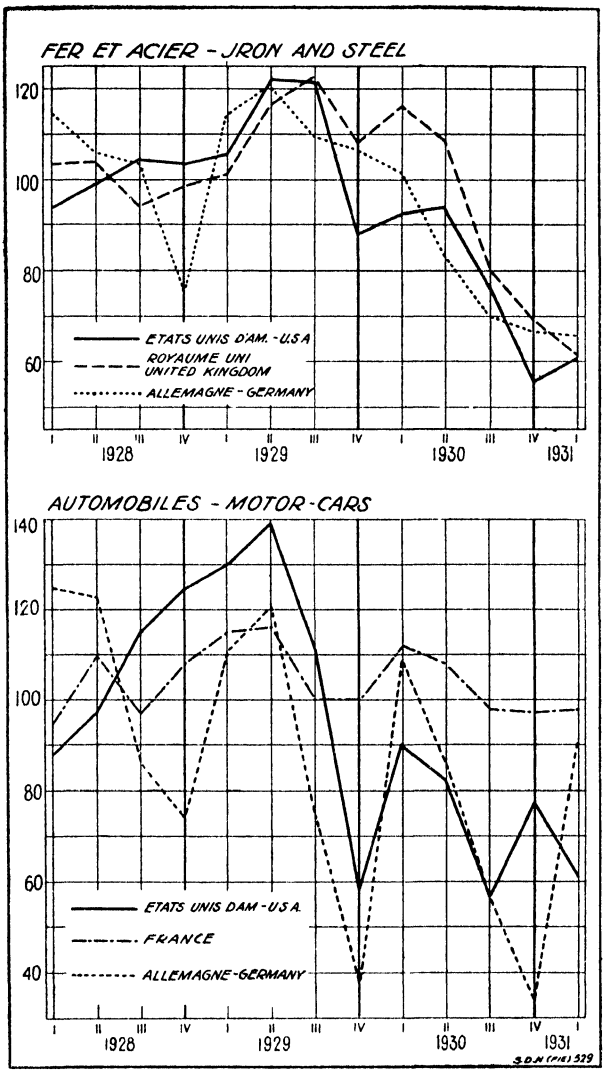
The statistical evidence that has been examined shows that in the equipment industries the fluctuations have on the whole been broader, the expansion greater and the subsequent depression deeper than in the consumption industries. It has thus broadly corroborated the generally accepted view on changes in production during the business cycle.

It is more difficult to state whether changes appeared earlier in the equipment industries than in the consumption trades in each successive phase of the cycle.

The industries in which the most vigorous progress was recorded in the years preceding the depression were, on the one

Chart 36.

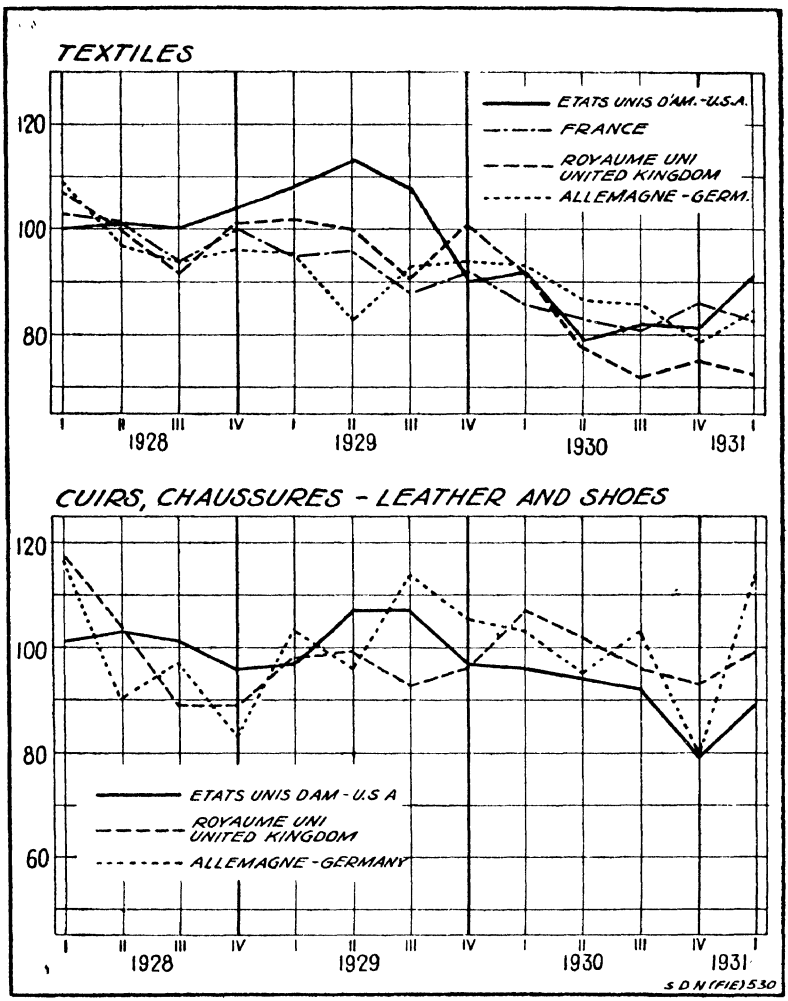
PRODUCTION OF IRON AND STEEL AND OF MOTOR-CARS.
(1928 = 100).



Sources : Federal Reserve Board.
Institut für Konjunkturforschung.
Lon on and Cambridge Economic Service
Statistique générale de la France.

Chart 37.

PRODUCTION OF TEXTILES AND LEATHER AND SHOES.
(1928 = 100.)



Sources : Board of Trade.
Federal Reserve Board.
Institut für Konjunkturforschung.
Statistique générale de la France.

hand, equipment industries, both old and new — iron and steel, mechanical and electrical engineering, shipbuilding, etc. — and, on the other hand, " new industries ", producing both equipment and consumption goods, but more especially the new forms of durable consumers' goods, such as motor vehicles, electric and wireless apparatus, gramophones, rubber goods, etc. The " old " consumers' industries expanded much less, if at all, during 1928 and 1929. After the turn of the business cycle the tendency was reversed. The leading equipment industries were most seriously affected, although production of electricity and electrical engineering to a large extent escaped. The " old " consumers' industries have generally suffered less than the other group ; the " new " consumers' industries, on the other hand, which produce durable goods such as motor-cars and wireless apparatus, have felt the effects of the general slump almost as much as the equipment trades. The semi-durable goods such as textiles have declined less, and that of non-durable goods little or not at all. Thus the production of goods requiring savings has been much more restricted than that of goods which are not bought out of savings.

It is not possible to draw any conclusions regarding changes in the total volume of real investment from the above figures for the output of manufacturing industries alone. These figures would suggest, however, that during the years 1927-1929 the volume of investment was increasing much more than the output of non-durable commodities. This impression is confirmed by the fact that building activity seems almost everywhere to have been unusually large (Chapter V A). Again, the export of equipment goods such as machines from the leading manufacturing countries grew rapidly in this period. This would appear to indicate that investment in other countries has been expanding also. The world production of iron and steel increased rapidly from 1924 to 1929, but has since declined to about one-half the maximum monthly figure.

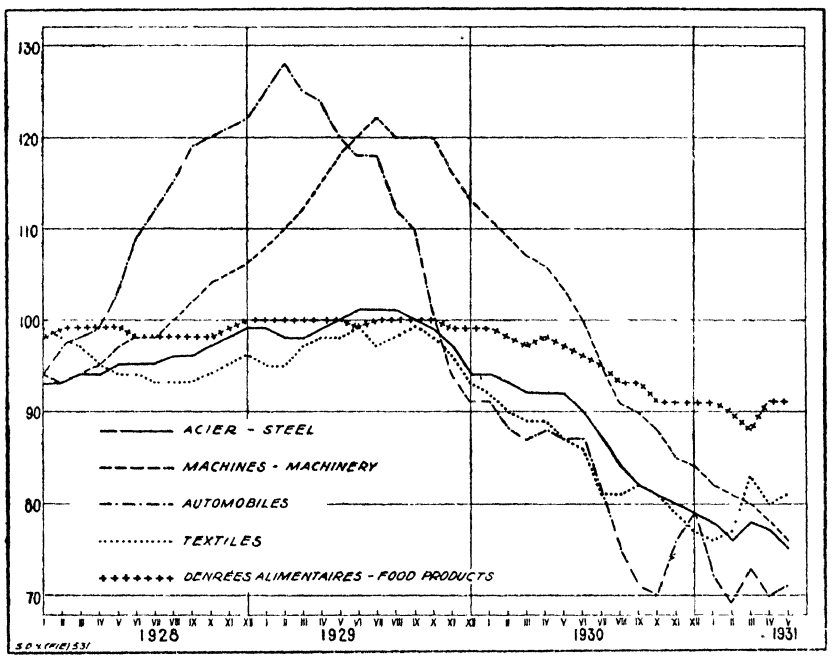
An estimate of the amount of capital invested in construction, machinery, railways, motor-cars, farm implements and livestock in the United States leads to the conclusion that it tended to rise from 1924 to 1929 inclusive, although there was a noticeable set-back in 1927. In Germany, total real investment, excluding stocks of commodities, rose rapidly from 1924 to 1927 [1]. It is not surprising that a large part of this capital seems to have been invested in a way which assumed a continued rise in the standard of living and consequently in the demand,

[1] *Kapitalbildung und Investitionen in der deutschen Volkswirtschaft, 1924 bis 1928*, Institut fur Konjunkturforschung, Berlin, 1931.

Chart 38.

FACTORY EMPLOYMENT IN CERTAIN INDUSTRIES IN THE UNITED STATES. [1] [2]

(1923-1925 = 100.)



e.g., for theatres, cinemas, restaurants. An over-estimation of future demand is of course characteristic of boom periods.

The general impression obtained from the somewhat scanty material examined above and certain other sources of information is that, in the years before the depression, an increasing percentage of the national income was being used for real investment. One may thus speak of the existence of an investment boom. This large investment may have been one of the factors which intensified the ensuing depression (*cf.* Chapter VII) during which investment has fallen off with great rapidity.

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[1] Adjusted for seasonal variations.
[2] Source : *Federal Reserve Bulletin.*

Prices.

The effects of the relative changes in different branches of production on the price system and the movement of the prices of the various groups of producers' and consumers' goods enumerated above may now be briefly analysed. The first obstacle to such an analysis lies in the fact that only a few countries publish price indices of producers' and consumers' goods in a form which can be used for the purpose in question : indeed, such data are available only for the United States of America, Canada, Italy and Germany.

The price movements shown by the indices for the various countries [1] mentioned during the years preceding the present depression have been influenced by certain factors of a special kind. Thus the year-to-year price movements of materials for consumers' goods (largely textiles and foodstuffs) are greatly influenced by crops and do not genuinely reflect variations in consumers' demand. Again, in many countries the materials for producers' goods have been subject to a more or less effective monopolistic control, so that here variations in demand are generally reflected in output rather than in price. Indirectly, these factors also affect the supply and the prices of the finished goods. Hence the price movements of the various classes of goods do not vary as they would do if they were influenced exclusively by the changes in demand and in productive capacity which occur during the business cycle.

In the table which follows are set out the relevant indices for the four countries mentioned above. The classification under the various headings is approximate ; it is not identical with that used in the indices as originally published. Columns *a*, *d* and *e* represent finished commodities, while *b* and *c* are raw materials and semi-manufactured goods.

It is noticeable that in all four countries for which data are available the prices of producers' equipment or manufacturers' materials for producers' equipment rose somewhat in the last stages of the boom period, while prices for consumers' goods and materials for these goods were already moving downwards. In Sweden, where the tendency of the price level was downwards in 1927-1929, prices of producers' equipment and materials for equipment dropped less than the prices of consumers' goods and their raw materials. Wages rose more in industries producing commodities of the former type.

[1] The indices for Canada are official ; those for the United States are published by the National Bureau of Economic Research ; those for Germany by the Institut für Konjunkturforschung ; and those for Italy appeared in a special article in *La Vita Economica Italiana*, March 1931.

Table VI. — Price Indices of Producers' and Consumers' Goods.

	Year	Producers' Goods		Consumers' Goods		
		Producers' Equipment *a*	Material for Equipment *b*	Material for Consumers' Goods *c*	Finished Consumers' Goods: Durable *d*	Finished Consumers' Goods: Non-durable *e*
Canada (1926 = 100)	1927	101.1	98.6		93.3	99.4
	1928	93.7	96.9		92.9	99.6
	1929	94.6	95.9		91.1	100.0
U. S. A. (1913 = 100)	1927	155		134	176	151
	1928	154		139	177	153
	1929	155		133	175	152
Germany (1913 = 100)	1927	130	137 [1]	154 [1]	160	
	1928	137	139	162	175	
	1929	139	138	145	172	
Italy (1901-1909=100)	1927		508	636		678
	1928		451	670		662
	1929		472	619		597

The German indices for producers' equipment show fewer and smaller fluctuations than those for other countries, as they consist chiefly of goods such as iron and steel, timber, etc., whose prices are determined on regional markets and are largely controlled by cartels. A more detailed examination of the monthly indices for Canada shows that the price of producers' equipment dropped quite regularly throughout 1927 and the first half of 1928, while consumers' goods as a whole were fairly steady. Producers' equipment began to rise in price in the latter part of 1928, while finished consumers' goods, after reaching their highest point in September 1928, tended to fall and rose again only in the last stages of the boom ; the prices of producers' equipment continued to rise throughout 1929 and the first months of 1930 and dropped only in May of that year.

In the United States, prices of materials destined for capital equipment reached their highest level (in the three years

[1] June.

considered) in March 1929 ; during the rest of that year they gradually receded. Finished consumers' goods as a whole rose between the beginning of the year and September, then dropped swiftly. Durable consumers' goods (other than foods) were gradually falling in price throughout the year, while non-durable goods (foods) rose very sharply between April and September.

The price movements of these various groups during the depression may now be considered. In the table which follows are set out indices for the three countries for which figures for 1930 and 1931 are available.

Table VII. — Price Indices of Producers' and Consumers' Goods.
(June 1929-June 1931.)

	Year	Producers' Goods		Consumers' Goods		
		Producers' Equipment	Material for Equipment	Material for Consumers' Goods	Finished Consumers' Goods	
					Durable	Non-durable
Canada (1926 = 100)	June 1929	94.0	92.2		91.2	96.7
	1930	91.4	82.5		86.4	94.2
	1931	89.1	62.0		80.2	70.1
U. S. A. (1913 = 100)	June 1929	156		130	175	147
	1930	143		111	166	136
	[1] 1931	131		89	148	109
Germany (1913 = 100)	June 1929	138	138	147	172	
	1930	138	132	119	161	
	[2] 1931	131	119	90	142	

It is obvious that in all cases consumers' goods, both durable and non-durable, have fallen more in price than producers' goods, both the finished equipment and the raw materials used in manufacturing them. This is chiefly due to the fact that the raw materials for consumers' goods, in particular crude foodstuffs and textiles, have dropped much more in price than the minerals

[1] April.
[2] May.

and metals which form the basis of producers' equipment. The prices of many of the latter commodities are determined on regional markets, and, as already mentioned, have been subject in many parts of the world to effective monopolistic control. Accordingly, as shown above, the major fluctuations take place in output rather than in price. Thus the price movement was the opposite of what might have been expected as a result of the presumably greater decline in the demand for producers' equipment than for consumers' goods.

In Canada, prices of producers' equipment fell by only about 5 per cent between June 1929 and June 1931 ; those of foods ready for consumption fell by 28 per cent and of other goods ready for consumption by 12 per cent. In this country, prices of building and construction materials fell by 16 per cent. In the United States, the materials for capital equipment fell in price by 16 per cent between June 1929 and April 1931, while foods ready for consumption fell by 26 per cent and consumers' goods other than foods by 16 per cent. In Germany, prices of raw materials for producers' goods fell by 14 per cent between June 1929 and May 1931, those of finished producers' goods fell by 5 per cent and consumers' goods other than foods by 17 per cent.

It will also be observed that, contrary to what might be expected, non-durable consumers' goods (chiefly foods) have fallen more in price than durable goods. This does not, however, indicate a greater stability of consumers' demand for the latter ; the raw materials for foodstuffs have, in general, fallen more than those for other consumers' goods ; further, durable goods are usually highly manufactured : for reasons given elsewhere in this volume such goods generally fall relatively little in price during a depression.

E. The Inflexibility of the Economic System in Relation to the Depression.

The inability of the economic system to adapt itself rapidly and smoothly to fundamental changes in demand, supply, technique, savings, etc., is a condition of maladjustments and depressions. Fixed capital cannot suddenly be made liquid and re-invested in a different form. Hence excessive investment in certain branches of industry affects the capacity for production for a considerable time. Labour also is frequently unable to shift easily from one occupation to another, and, for several reasons, a change in production often takes a long time to effect. Tariffs and other obstacles to international trade

constitute a special impediment to smooth adaptation. They enhance the difficulty of adjusting trade balances — for example, to a change in international capital movements — and thus contribute to economic and financial difficulties such as have been described in earlier sections of this report. If the adaptability of the economic system were greater, depressions would be less severe. Tendencies towards over-production in certain industries would more quickly disappear. For instance, if after 1929 the output of foodstuffs had been slightly reduced, the prices of such products might have been maintained on a higher level and the violent shift in incomes to the disadvantage of the farming population have been more or less avoided. The situation of manufacturing industries would in consequence have been less disturbed (*cf.* Chapter VI A above).

Maladjustments within the economic system usually call forth their own corrective — a change in the relative prices of commodities and services, tending to make the necessary re-adjustment profitable. If adaptation is impeded by severe friction — for instance, if supply is very inelastic — then a change in demand will bring about a greater movement in prices than would have taken place had the adaptation been more easy to effect. In a sense, the function of a decline of prices below costs is to call forth a reduction in supply. For instance, a decline in rubber prices tends to bring about a reduction in the number of rubber trees planted.

A price decline of this kind may not take place, even where capacity of production is far in excess of demand, if supply is restricted through some form of monopolistic control. Such restriction is one way of remedying an excess of supply which would otherwise be corrected by a re-adjustment of production through the medium of price changes. Experience seems to prove, however, that it is essential to the smooth working of the economic system that there should be some relation between the quantitative and price adjustments effected in different parts of the economic system. If, for instance, a sudden and considerable reduction in demand leads to an organised restriction of supply and consequently a maintenance of the prices of certain products, but at the same time to a heavy decline in the prices of others, the situation becomes to some extent unbalanced and unstable. Such conditions may arise if the prices of certain raw materials and semi-manufactured goods are maintained, while prices of finished commodities are allowed to drop. In such circumstances, the prices of unregulated raw materials and semi-manufactured goods tend to fall sharply. In the same way, fixity of certain wages may strengthen the tendency towards a drop in other wages. On the other hand, if prices of finished

commodities are maintained at a high level, the demand for these commodities may be reduced and thus indirectly the demand for raw materials. The prices of raw materials may in this way be depressed much more than they would be otherwise. Further, the quantity of any commodity which can be sold at a pegged price is smaller than it would be if the price were allowed to drop. A quantitative reduction of this sort may have serious reactions elsewhere. Rigidity in the prices of certain classes of products tends to increase the variations in other classes of which the prices are more flexible.

The problem of the classes of prices which have shown themselves relatively inflexible in the course of the present depression is of some importance. Many finished consumption goods have been subject to monopolistic regulation and have varied little, or in some cases not at all. Such a regulation of prices has been especially common in Germany. Finished commodities belonging to the group of manufacturers' equipment do not seem to have been subject to such control to any large extent, but, like manufactured goods in general, they have declined relatively little in price. Several items entering into the cost of producing finished consumers' goods or manufacturers' equipment have also changed very little. The prices of certain raw materials and semi-manufactured goods, such as iron and steel, cement, glass, bricks and certain chemicals, have on many important markets been maintained at a level which is only slightly lower than that of 1929. Further, the wage rates of manual and other classes of labour have, in most countries, declined little. Long-term interest rates have also declined relatively little – by approximately one-tenth from the high level ruling in the boom years. Taxation has not been reduced — in some cases has even been increased — and the real weight of specific tariffs and of public and private debts has been increased in proportion to the decline in prices.

How far this relative inflexibility in certain parts of the price system has tended to intensify or to mitigate the depression may now be examined. It will be more convenient perhaps to put the problem in a more concrete form and to ask whether the output of industry would be increased or diminished by a reduction of these rigid prices and wages. Some economists believe that a reduction in costs, which would increase the now generally low profits, would lead to an expansion of production, while others maintain that a reduction of wages and fixed incomes would reduce purchasing power and demand and thus intensify the depression.

In an analysis of this very difficult problem, it seems essential to distinguish clearly between changes in the distribution of

income or purchasing power on the one hand and changes in the total volume of purchasing power used to demand commodities and services on the other. If it is assumed, in other words, that the total purchasing power used to buy finished consumers' goods and producers' equipment is independent of fluctuations in these price and cost items, then a reduction in the prices of finished goods which are now subject to monopolistic control would increase the demand for them and lead to greater production. This is true both of non-durable consumers' goods and investment goods — *i.e.*, durable consumers' goods and equipment. The increased output of these commodities would involve an increased demand for raw materials and for labour and the volume of economic activity in general would thus be increased.

It is much more uncertain to what extent a reduction in the various items which enter into the costs of production of finished commodities — that is to say in the prices of raw materials and wages and interest rates — would have similar effects. In the first place, the effect of cost reductions on the prices of finished commodities varies. Certain cost elements have a much less direct influence than others on the price at which the producer is willing to put an extra unit of goods on the market. Overhead costs, which do not vary with the volume of output, are among those which, in the short run, are likely to have little effect on selling-price. Some of these overhead costs are fixed by long-term contracts — for instance, the interest on bonded loans and certain salaries ; during bad times they are not fully covered by earnings and their reduction might merely involve a change in the distribution of income to the advantage of the manufacturer and have no effect on selling-price. In the short run, their influence on selling-price is, as a rule, insignificant compared with that of the variable costs, which change with the volume of output — for instance, wages of manual labour, the cost of raw materials, power, etc. Production naturally ceases unless variable costs are covered. As even during a business depression selling-prices, both in manufacturing industries and elsewhere, are generally much above these variable costs, it is not at all certain to what extent their decline would lead to a corresponding reduction in the prices of the goods produced.

It is probable, however, that in many cases a reduction of the variable costs would lead to a corresponding reduction in selling-prices. In other words, if these costs are half as high as the price of the finished commodity, were they reduced by 10 per cent prices might fall by 5 per cent. Thus, if the amount of money used for the purchase of commodities affected by these changes remained the same, the volume of output would increase by 5 per cent. Under other conditions of demand, it might

increase more or less, but any difference would be offset by a change in the demand for other commodities. Such a reduction of costs would increase the incomes of the manufacturers, who would be able to sell a greater volume of commodities, while maintaining the margin between selling-prices and the variable costs intact. On the other hand, wage-earners and the producers of raw materials would lose. Only if the prices of the finished commodities were reduced by the same percentage as the variable costs would the money incomes of the wage-earners as a whole and entrepreneurs as a whole remain as before ; the reduction in wage rates and prices would be offset by a larger volume of sales and employment. The real income of these groups and of society in general would be larger than before.

Table VIII. — Indices of Building Costs.

Monthly Average of First Half of Year.
(1913 = 100.)

	Germany	United States	
	[1]	[2]	[3]
1928	173	198	206
1929	174	204	207
1930	176	202	207
1931	148	199	193

A good example of the influence of cost reductions can be found in the building trade, because almost all costs in this trade are variable. Reduction in the prices of building materials and builders' wages would make houses cheaper. Hence a given sum of savings would be sufficient to finance the construction of a larger number of houses. That the costs of construction have shown relatively little flexibility during the present depression, as seen from the table above, is a fact which deserves special attention. Iron and steel, cement, glass and bricks have, in several, although not by any means in all, countries, fallen very little in price, largely because they are to an unusual degree subject to monopolistic regulation.

[1] *Wochenberichte des Institutes für Konjunkturforschung.*
[2] Associated General Contractors of America.
[3] *Engineering News Record.*

Table IX. — Indices of the Costs of Building Materials. [1]

Germany	April 1929	April 1930	April 1931	June 1931
Stone, etc.	100	101	79	78
Structural steel	100	100	90	92
Building timber	100	97	71	70
Total building material .	100	100	80	79

Italy	July 1929	July 1930	July 1931	July 1931
Bricks, common, Milan . . .	100	60	49	48
Tiles, Milan	100	83	70	71
Cement, Milan	100	90	84	84

United States	May 1929	May 1930	April 1931	May 1931
Brick house, 6-room	100	99	92	92
Frame house, 6-room . . .	100	100	88	90
Brick, common, New York .	100	93	91	91
Cement, Portland	100	97	85	84
Lumber, composite	.	100	87	81
Structural steel beams . . .	.	100	83	83

In the United Kingdom, the price of cement has remained unchanged from the summer of 1929 to the summer of 1931. Further, the prices of building timber and of bricks in London have been kept stable since the middle of last year (earlier information not published).

Building wages have dropped very little. Nominal wage rates, which, however, do not accurately reflect actual earnings, have remained practically unchanged in Australia, the United Kingdom, Italy and the United States from 1929 up to the spring of 1931 ; in Germany and France, they have even shown some increase.

[1] Sources : Germany : *Vierteljahrsheft zur Konjunkturforschung; Wirtschaft und Statistik*, July 1931, Part I.
Italy : *Bollettino dei Prezzi.*
United States : *Survey of Current Business.*

On the basis of the above reasoning a tentative conclusion can be reached that, had building costs dropped radically in 1930, the chances of a considerable building activity during 1931 would have been increased. This question is further discussed below.

Although it is more uncertain to what extent cost reductions in other industries would lead to price reductions and an increased volume of production and employment, there can be no doubt that, if the assumption made above regarding the maintenance of total purchasing power is correct, the tendency would be the same as in the building trade.

Before analysing the validity of this assumption certain qualifications must be stated and the special problems which arise in connection with retail prices briefly discussed.

As already indicated, reductions in various cost and price items would, under certain conditions, lead to considerable changes in the distribution of income between different classes of society. This would entail a corresponding change in the direction of demand. For instance, wage reduction unaccompanied by an increase in employment sufficiently large to maintain unaltered the total income of the working classes would reduce the demand for goods consumed by these classes, and increase the demand for goods required by farmers and other social groups. While such a change might be important from the point of view of social policy, it would probably have little effect on the volume of production for, in view of the substantial surplus capacity existing in all branches of industry, a shift in demand from one class of goods to another would not reduce output in one branch more than it increased it in another.

It may be added that a reduction of certain costs and prices, if undertaken by one country alone and not by others, would increase the competitive power of the export industries of that country and thus have a greater effect on the volume of sales and employment than if the same policy were simultaneously adopted in all countries.

The flexibility of retail prices seems to have been relatively small in spite of the comparative absence of monopolistic regulation in the retail trade. The maintenance of fixed prices of certain branded commodities has been due largely to regulation by manufacturers, not by retail traders. A considerable amount of friction, however, seems to have prevented retail prices from dropping as much, or as fast, as the decline in wholesale prices would justify. It is true that if the retailers' margin is to be kept intact or reduced only as much as wage rates in manufacturing industries, the percentage decline in retail prices cannot be as great as in wholesale prices. There is reason to believe,

however, that retail prices have declined so slowly that the margin between the wholesale and retail prices of identical commodities on a given day is somewhat greater than it was. In other words, the retail price of to-day is based on the wholesale price ruling some time ago.

This increased margin has very much the same effect on the volume of sales and production as would result from a forcing up of wage rates during the depression, or the raising of wholesale prices by agreement between producers. If retail prices dropped more, a larger quantity of finished commodities would be sold and produced. This is entirely compatible with the assumption that total national incomes in terms of money would not necessarily be further reduced by increased flexibility, as whatever reduction in the incomes of retailers took place might be offset by increased incomes for wage-earners and manufacturers as production rose.

But no answer can be given to the question with which this chapter is mainly concerned — namely, that of the effect on the volume of production of greater flexibility in the price system — until an analysis is made of the assumption, introduced for the sake of simplification, that this greater flexibility would not reduce the total volume of monetary purchasing power in use.

It has been explained above that during the present depression the volume of savings has probably been larger than the demand for credit for investment purpose. Hence a part of the purchasing power has not been used at all, a fact which has tended to depress prices and reduce the volume of production. Obviously, it is quite possible that a reduction of certain price and wage items might affect both the volume of savings and the demand for credit,[1] and thus weaken or strengthen the tendency towards a general decline in prices and production.

Goods are produced for sale at some future date. Hence producers in regulating the volume of their present output must consider the costs and selling-prices that may be anticipated in relation to present costs. On the future course of selling-prices it is extremely difficult for producers to form an opinion; it is certain, on the other hand, that they base their decisions partly on their expectations of future costs.

For instance, if a manufacturer of cotton goods expects a decline in the price of raw cotton or in wages in the near future,

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[1] This expression is used throughout the volume in a wide sense and covers the use of personal savings and of bank credit previously obtained, which has not so far been utilised. It should also be borne in mind that an increase in the total volume of purchasing power used to demand commodities and services does not necessarily lead to an increase in the quantity of the means of payment, but may only lead to an increase in its velocity (see Chapter VI B).

he will expect selling-prices to follow a similar movement ; he will try to produce as little as possible at the present high cost. Thus, if there is a chance of falling costs in the near future, the manufacturer will tend to restrict his output and his demand for credit.

Further, irrespective of what has just been said, it is quite possible that a reduction in wages or in the prices of certain raw materials or semi-manufactured commodities would lead to a reduction in the entrepreneurs' demand for credit. Again, wage reductions might reduce the consumption of the working classes and reduce manufacturers' losses or increase their profits, which would increase the sum of savings. As a result, an increased supply of savings would meet with a reduced demand on the capital market — although a drop in interest rates might to some extent stimulate demand — and not all savings would be lent. The total purchasing power in use would fall with a depressing effect on both prices and production.

Thus the direct stimulus to production provided by a reduction of costs, such as described earlier in this section, might well be offset by a strengthening of the tendency of the purchasing power to decline. It seems uncertain whether during the present depression general reductions of prices and wage rates would have enabled output to be maintained at a higher level. In other words, it is quite possible that the maintenance of certain prices and wages, although it has probably tended to depress other prices and wages, has prevented prices in general from declining even more than they have actually done. The conflicting theories concerning the influence of wage reductions both contain a kernel of truth ; opposing forces are called into play and it depends on the actual circumstances in each case in which direction the volume of production will be influenced.

It seems certain, however, that greater flexibility in one class of costs — those of real investment — would lead to the maintenance of a greater volume of production and, indirectly, of purchasing power, and would thus mitigate the depression. When a depression has begun, the volume of investment tends to fall off as expectations concerning the future become less favourable. If costs of investment do not fall, a contraction of investment is inevitable. It is true that little stimulus to investment is probable while these costs are actually declining ; but when they reach rock-bottom a revival will be stimulated. The cost of building may be taken as an example. In many countries, the level of house rents made it profitable to construct residential buildings in 1929. Rents have since remained fairly steady. Had a considerable reduction in building costs been effected in 1930, an increased activity in this field would have proved profitable. Thus, not

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CORRIGENDA.

In this reprint of the revised edition a few minor corrections have been introduced. In addition, the following corrections should be made in the light of new data concerning the outstanding German short-term indebtedness contained in the Report of the Young Plan Advisory Committee (December 1931) :

Page 35, line 7 :

German net indebtedness on short-term account at the end of 1928 :

For " over $1,000 million " *read* " over $2,000 million ".

Page 36, line 15 :

German borrowings abroad on short term at the end of 1929 :

For " 11,200 - 12,200 million marks or $2,600 - 2,900 million " *read* " 16,000 million marks or $3,800 million ".

only would a greater volume of construction have been financed by a given quantity of money savings, but the total amount of credit used for construction, and consequently the total volume of purchasing power in use — *e.g.* in 1931, would have been greater.

In the present depression, the demand for non-durable consumers' goods has been much better maintained than the demand for investment goods — *i.e.*, durable consumers' goods and equipment goods. This has probably been to some extent due to the failure of investment goods to decline in price as much as the former. Reductions in the prices of investment goods, especially when unaccompanied by corresponding reductions in the level of costs and prices in other industries, tend to stimulate the demand for such goods ; the demand for credit and the volume of purchasing power is thereby increased. For instance, a reduction in the wages of manual and other labour in the machine industry unaccompanied by a similar reduction in other industries, would make it profitable to substitute machinery (now reduced in price) for labour in other industries. A reduction of monopolistic prices — for example, those of iron and steel — which enter into costs in the investment trades would have the same influence. Obviously, the tendency to increased investment which such a reduction would evoke would be much weaker if costs fell all along the line, as the substitution of machinery and other investment goods for labour would then be less profitable. On the other hand, in some industries cost reductions might revive profits sufficiently to stimulate investment for the purpose of increasing capacity. Which of these two tendencies is on the whole the stronger it is difficult to judge. It would appear to depend on the circumstances in each individual case. It should be added, however, that an expectation of a future rise in the general wholesale price level, which also stimulates investment, might be weakened by a general reduction of costs. Recovery of business might then restore the balance between costs and prices at a much lower level than that existing before the depression.

The facts that the prices of materials for producers' goods have been better maintained than those of materials for consumers' goods, and that wages in the investment trades have failed to decline in relation to wages in other industries in spite of demand having fallen off more in the former than in the latter, tend to discourage a revival of investment which would exercise a stimulating influence on business in general. This discouraging influence has probably been strengthened in 1931 owing to the fact that many business men have been expecting that the resistance to price and wage reductions in certain investment trades would break down and have accordingly postponed action.

It is sometimes suggested that an all-round reduction of wages and other costs tends to increase production and is a necessary condition of recovery, as it makes for a better balance between costs and selling-prices. But during a severe depression the volume of output is small, overhead costs are heavy, and average costs per unit of output are therefore relatively high. Even substantial cuts in the variable cost elements, such as wages and raw material prices, would in most industries fail to reduce average costs to the level existing when business conditions were good. Even if they did, production would nevertheless be unprofitable as long as prices of finished goods are seriously depressed, as at present. In many industries, variable costs would have to come down almost to nothing if average costs were to fall below the present prices. Reductions of such magnitude do not appear to have taken place during earlier depressions. Experience shows that recovery starts at a time when profits are low, and that it is the increase in the volume of output that makes production again profitable. As long as prices are well in excess of variable costs, any increase in output will of course benefit the producer.

The interest level is also an item of fundamental importance in the cost of real investment. Whether a certain investment — for instance, the construction of residential buildings — is profitable or not, depends, not only upon the cost of production of the houses, but also upon the amount of the annual interest expenditure involved. Reduction of both building costs and interest costs by 20 per cent would make possible a fall in the annual rent by almost 36 per cent. In the same way, the purchase of very expensive machinery which can be used for a number of years is the more profitable the lower the rate of interest. Hence the failure of the long-term rate of interest to decline substantially is one factor which has tended to reduce the volume of investment and to intensify and prolong the present depression. The causes of this failure of interest rates to drop have been briefly examined above in Chapter V C.

The influence of high taxation on the volume of production has been much less easy to determine. Unless a decrease in taxation — rendered possible, for example, through a drop in the interest on public loans or reduction in the wages and salaries of public officials — affects total purchasing power, it merely involves a change in the distribution of income. There will be no increase in the volume of services performed by these officials corresponding to the increase in sales resulting from retail margins. On the other hand, a relative reduction of taxation on industry in a given country tends of course to increase the competitive power of this country. Other things

being equal, it tends to increase the volume of sales and of output.

It has only been possible in the present section to examine certain aspects of the problem of the forms of flexibility and inflexibility which mitigate or intensify economic depressions and to draw a few tentative conclusions. The present economic system is based on adjustments through changes in the prices mechanism. Into this mechanism, elements of rigidity have been introduced, which affect and to some extent impede its working. It is not improbable that, under such conditions, the resistance of the economic system towards depressing tendencies, such as have operated in the world in the last two years, has been reduced and that the system has lost some of its power of recovery. On the other hand, as already observed, in certain circumstances rigidity of prices and wages may have a favourable influence. Scientific analysis of this problem, however, and indeed of the whole problem of business cycles, is still at an early stage.

Chapter VII.

COMPARISON WITH EARLIER DEPRESSIONS.

In the present chapter it will only be possible to discuss a few aspects of previous periods of depression concerning which information is available. In the absence of comprehensive world figures regarding pre-war business conditions, this discussion will necessarily be confined largely to conditions in the limited number of important countries for which material exists.

It may be convenient first to compare the general movements of production, trade, prices, and money rates during the various depressions, and later to examine in what important respects the present depression resembles or differs from each of the major trade depressions of the last sixty years.

Volume of Production.

The lack of data, especially the lack of monthly figures makes it difficult to make the necessary comparison of changes in production.

Before the war, pig-iron production was regarded as of primary importance for a study of business cycles. However, as observed in the last chapter, the relative importance of pig-iron in industrial production is now less than it was before the development of electrical, engineering and other industries using large quantities of non-ferrous metals. Again, figures for pig-iron output naturally fail to reflect changes in the activity of the chemical industry and a number of other industries which have become increasingly important in recent decades. The changes in this particular series show the tendency of the movement in industrial production rather than its intensity.

The output of pig-iron in six important producing countries[1] dropped by 8 per cent from 1873 to 1874, 10 per cent from 1883

[1] United Kingdom, France, Germany, Belgium, Sweden, United States.

to 1885 and 6½ per cent from 1890 to 1892. The drop was negligible between 1900 and 1901 (¼%) in the six countries taken as a whole, but it amounted to 10 per cent in the five European countries considered. From 1907 to 1908, the decline was no less than 23 per cent, from 1920 to 1921 and from 1929 to the first half of 1931 over 40 per cent. Except in the last case, the above percentage figures measure the changes between the year of the highest and that of the lowest output. In all the earlier depressions except that of the eighteen-eighties, the lowest level of output was reached in the year after the crisis. In other words, some recovery began to take place during the second year. The recent decline in pig-iron production has not only lasted longer than in any of the previous depressions, but from the available figures for 1931 it appears that the reduction in output is greater.

The output of coal has declined during the various depressions to a very different extent from country to country. In the world as a whole, the reduction during the pre-war depressions was insignificant, but the failure of coal output to rise was equivalent to a relative contraction, as in the pre-war decades the long-period trend of coal production was rising. After the war, there has been no such upward trend. The importance of coal has altered in the course of recent decades as a result of the new technique of generating power, and the changes in coal output have been considerable. The decline in the world output of coal from 1920 to 1921 was more severe than in the present depression, though in several countries the relative decline has been greater in the last two years.

The textile industry of the most important producing countries has not been as seriously affected as during certain previous depressions. In the United Kindom, the volume of imports of raw cotton declined :

by 6 per cent from 1874 to 1875 ;
by 18 per cent from 1884 to 1885 ;
by 14 per cent from 1907 to 1908 ;
by 38 per cent from 1920 to 1921 ;
by 42 per cent from 1929 to 1930.

In France, the textile production index fell by 13 per cent from 1899 to 1900, 21 per cent from 1920 to 1921 and 8 per cent from 1929 to 1930 ; the available figures for 1931 point to a further drop.

The weight of German imports of cotton declined by about one-tenth from 1874 to 1875, and minor declines of about 5 per cent occurred between 1883 and 1885 and between 1907 and 1908. During the present recession the reduction has been

greater; the index of production in the German cotton industry dropped by 17 per cent between 1928 and the first half of 1931.

A comparison of the production of investment goods is difficult on account of the inadequacy of the statistical material. The building index of the Statististique générale provides a basis of comparison for France. It shows a reduction of about 7 per cent between 1901 and 1903 and of 15 per cent between 1905 and 1907 and again between 1920 and 1921. Building activity rose in 1930, but declined about 7 per cent in the first half of 1931.

A much more serious contraction of building activity has been experienced in the United States. While the value of building contracts declined by about 11 per cent ten years ago and between 1906 and 1908 by 20 per cent, the reduction during the present depression has been as follows :

13 per cent between 1928 and 1929 ;
32 per cent between 1928 and 1930 ;
48 per cent between 1928 and 1931 (6 months).[1]

In each of the three major depressions of this century, building in the United States began to recede in the year before the turn in business. In other countries also, the turn in building activity took place one or two years before the crisis.

In shipbuilding there has been a considerable decline in activity in the last two years, although so far rather less than during some earlier depressions. A sharp contraction has, however, taken place in 1931.

For a comparison between the two post-war crises in the U. S. A. a large mass of material is available. A comparison of the indices of production gives the following result. In the United States the volume of industrial production measured by the index of the Federal Reserve Board declined by 23 per cent between 1920 and 1921 and by 18 per cent between 1929 and 1930. Monthly figures (seasonal variations eliminated) show a greater decline — 29 per cent in the nine months following June 1920 and 35 per cent between June 1929 and December 1930. It thus appears that the volume of production in the United States has receded more during the present depression than nine years ago.

The production indices available for other countries as a rule cover too short a period to allow of any comparison with previous depressions. Further the various production data to which reference has been made above are insufficient as a

[1] Federal Reserve Board index of contracts awarded.

basis for any adequate statistical comparison between the present and past depressions. They would appear to suggest, however, that the recent decline in production, though in some cases less than that recorded in 1920-21, is on the whole greater than that which occurred during most of the depressions of the last century, as well as those of 1900-01 and 1907-08.

The relative contraction of the value of the world trade between 1929 and 1930 has been unprecedented, as may be seen from the following table :

from 1873 to 1874	— 5 per cent
from 1883 to 1884	— 4 per cent
from 1890 to 1891	+ ½ per cent
from 1900 to 1901	— 1 per cent
from 1907 to 1908	— 7 per cent
from 1929 to 1930	— 19 per cent

Between the spring of 1929 and that of 1931, world trade would appear indeed to have contracted by about 40 per cent. It should, of course, be kept in mind that the decline in prices has been relatively great during the present depression. There can be no doubt however that the quantum of trade had also dropped more than on earlier occasions as already pointed out in chapter V D. A comparison with the depression of 1920-21 is difficult on account of the instability of currencies after the war.

Russian Production.

As pointed out in previous chapters (V A and VI C), the position of Russia has been peculiar ; the quantity of her output has expanded to a remarkable extent during the past two years. It should be observed, however, that Russia has, within the last decade, experienced certain violent and serious trade fluctuations, although different in character from the business cycle.

It is often thought that Russia's immunity to the business-cycle depression is a new phenomenon, due to the change in her economic system. This can only be partly true, as the preponderance of agriculture of a rather primitive form in her economic structure has always rendered her largely independent of business fluctuations elsewhere. This also applies of course to other countries with a similar industrial structure.

Prices.

Every business-cycle recession for which statistical records are available has been marked by a decline in the general level of wholesale prices. This decline has been so regular a phenomenon

that it is regarded by many economists as the most characteristic feature of economic depressions. The character of the fall in prices has of course differed in every case; each cycle presents certain peculiarities which distinguish it from others. In order to compare fully the price movements of this and previous depressions, it would be necessary to make a more detailed study of the available data with regard to the latter than lies within the scope of this report. All that is attempted here is to point out some salient features of the fall in prices during the various depressions which have occurred since the last quarter of the 19th century, and to direct attention to the outstanding points of similarity or dissimilarity with the present fall in prices.

The data available for pre-war depressions which permit even of such general comparisons are very inadequate. In most cases, general price indices, when they exist, are given only as annual averages and do not therefore allow measurements of month-to-month movements, which are of particular interest in a period of rapidly falling prices. Further, the price indices constructed during the last century consist almost entirely of crude foodstuffs and raw materials, while those at present in use often include a wide selection of manufactured goods. Comparisons must therefore necessarily be rough.

The character of the price declines in the depressions to be studied have varied considerably. Towards the end of the last century, when the long-time trend of the price level was downward, the fall in prices during a business-cycle recession appears to have been more marked than during periods in which there was a long-time upward trend of prices. The downward trend, which lasted from 1872 to 1896, was ushered in by a violent collapse in 1873. The ensuing depression continued until 1879, with only a brief recovery around 1876, and carried price indices to about half the figure they had attained in the preceding boom period.

During the periods when prices were moving upwards, as they were between 1896 and 1913, the declines which took place during depressions were, as already mentioned, slighter. In the crisis of 1900 and 1907, for instance, prices fell considerably less than in either 1873-1875 or 1884-1886. During the depression in the early 'nineties, however, the price decline was in some countries very small. These facts are brought out in the following table, which shows the percentage decline in the general level of wholesale prices in four countries for which indices are available. It has already been stressed above that the figures are more in the nature of estimates than accurate measurements.

As most currencies were on a paper basis during the years immediately after the war, price changes between 1920-1922 have

a significance somewhat different from price changes during other depressions and have therefore been omitted from the tables which follow.

Table I. — Percentage fall in Wholesale Prices. [1]
(Annual averages of years shown.)

	United Kingdom	France	Germany	U. S. A.
	Statist	*Statistique Générale*	*Wirtschaft u. Statistik*	Bureau of Labor Statistics
From 1873 to 1875.	— 14	— 10	— 13	— 7
From 1891 to 1893.	— 6	— 4	— 18	— 7[2]
From 1900 to 1902.	— 7	— 5	— 7	— 1[3]
From 1907 to 1908.	— 8	— 7	— 6	— 4
From 1929 (first half) to 1931 (first half)	— 28	— 24	— 17	— 24

In so far as reliance can be placed on the price indices for the 19th century, it would appear that the present fall in prices is more severe than any experienced during the depressions in the last half century before the war.

It would be of interest to compare also the duration of the decline in prices, but unfortunately monthly data for the early periods are not available. During the long periods of falling prices, the rapid fall seems, however to have lasted longer than during periods when prices were normally moving upwards.

The present price decline has lasted longer than that of 1907-1908 or that of 1920-1922. Prices in most parts of the world have now been falling almost three years and falling rapidly for two; in 1907-08, prices fell for less than a year (in the United States only for four months) and then turned upwards, while in 1920-21 they fell in the United States for 20 months and in many other countries for a similar or somewhat longer period — in certain countries, however (*i.e.*, those which continued to inflate their currencies), the duration was considerably shorter.

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[1] Source : *Annuaire statistique de la France.*
League of Nations *Monthly Bulletin of Statistics.*
Wagemann : *Struktur und Rhythmus der Weltwirtschaft.*

[2] 1892.

[3] 1901.

A more trustworthy measure of the relative severity of price declines in various periods than that afforded by the general indices is to be found in the price movements of individual commodities. In the table which follows is shown the fall in prices of several important commodities in Germany during the major depressions of the last half-century. In each case the decline is measured from the highest monthly average reached during the upward swing of business preceding depression to the lowest monthly average preceding revival. The dates indicate the years during which prices were falling.

*Table II. — Percentage Fall in Commodity Prices in Germany.**

	Coal	Pig-iron	Copper	Wool	Cotton	Hides
1884-1886 . . .	36	49	46	42	33	36
1893-1895 . . .	44	47	48	37	55	22
1902-1903 . . .	9	37	33	36	41	8
1908-1909 . . .	4	19	49	22	32	28
1930-July 1931 .	9	8	63[1]	69	57	65

It is obvious that the present decline in prices, even if measured only to the middle of 1931, has been more severe than in the previous depressions for all commodities included in the above table except coal and pig-iron. The most noticeable contrast with the crises of the 19th century lies in the behaviour of coal and iron prices. Previously, these commodities were extremely sensitive ; their prices generally rose and fell before commodities in general and fluctuated more widely. With the cartellisation of the coal and iron industries towards the beginning of the present century, however, the price fluctuations became much narrower. In the present depression, coal has fallen relatively little in price compared with most other commodities ; on many domestic markets it has remained practically unchanged and on some it has risen.

Prices in France have moved in very much the same way as in Germany. It is noticeable that in both countries wheat prices have been maintained at a fairly constant level in the last few years through tariff increases and other official measures.

* Source : Wagemann : *Struktur und Rhythmus der Weltwirtschaft.* August 1931.

Table III. — Percentage Fall or Rise in Commodity Prices in France. [1] [2]

From—to	Wheat	Cotton	Silk	Iron	Coal
1873-1875 . . .	— 26	— 23	— 23	— 25	— 26
1890-1892 . . .	— 28 [3]	— 28	— 14	— 15	— 24
1900-1902 . . .	— 3	— 8	— 10 [4]	— 20	— 25
1907-1908 . . .	+ 9	— 14	— 32	+ 7	— 9
1929-1931 [5] . .	+ 23	— 43	— 51	— 38	+ 1

The price movements of important groups of commodities in the United Kingdom during the present and past periods of depression may also be compared :

Table. IV. — Percentage Fall or Rise in Commodity Prices in the United Kingdom. [2] [6]

	Vegetable Food	Animal Food	Minerals	Textiles
1873-1875	— 12	— 1	— 28	— 15
1891-1893	— 21	+ 4	— 11	0
1900-1902	+ 1	+ 2	— 24	— 8
1907-1908	+ 1	+ 1	— 18	— 20
1929-1931 [7]	— 29	— 14	— 21	— 51

These indices confirm the opinion that the present decline in prices is, on the whole, more severe than in any of the major pre-war crises. Vegetable foodstuffs declined in price during the long depression periods in the last century, but not during the short depressions before the war. It should be observed, however, that, not only in 1901 and 1908 but also in 1891, the price of wheat was higher than during the preceding boom year. Even in 1874 it was maintained on a relatively high level, and helped to maintain the general index for vegetable foodstuffs. (See Chart 39.)

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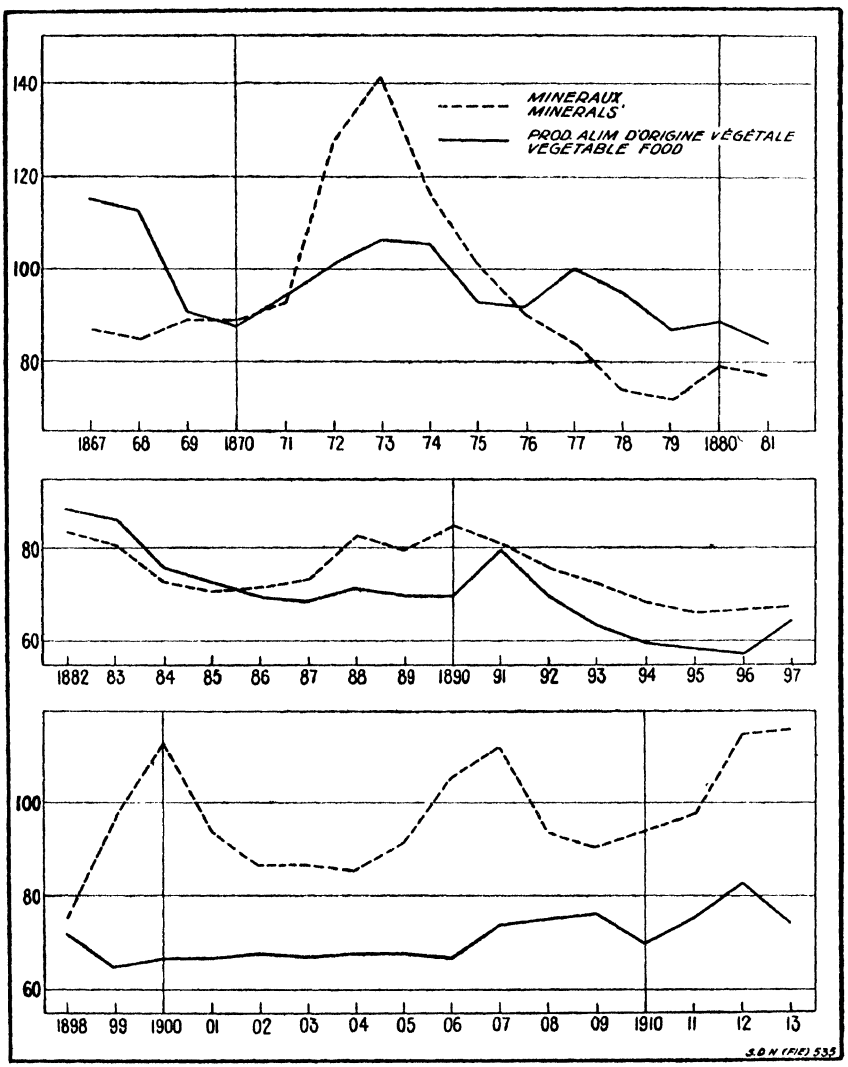
[1] Source : *Bulletin de la Statistique générale de la France.*
[2] These figures, which show the percentage decline between the annual averages of the two years indicated, are not comparable with those given in Table II above, which are based on monthly data.
[3] 1891-1893.
[4] 1900-01.
[5] Average of the first half of 1931 compared with the average of 1929.
[6] Source : Index of *Sauerbeck* and *The Statist* (for 1929-31).
[7] First half of 1929 and first of half 1931.

Chart 39.

WHOLESALE PRICES OF MINERALS AND VEGETABLE FOOD IN THE UNITED KINGDOM, 1867-1913.

(Index of *Sauerbeck* and *The Statist.*)

(1867-1877 = 100.)



Source : *Journal of the Royal Statistical Society.*
The Statist.

The output of cereals fluctuated quite differently from activity in manufacturing industries as reflected in mineral production. Such facts lend no support to the theory that variations in the volume and value of crops are the cause of the business cycle. They do, however, indicate that it is not a mere accident that periods of depression have been brief when agriculture has been prosperous and the purchasing power of farmers well maintained. Moreover, when both agriculture and manufacturing industries happen to be depressed at the same time, the recession tendencies strengthen one another.

Of all commodities, minerals have dropped the most consistently and severely in price during depressions. After the crisis of 1873, pig-iron and coal prices fell by about one third ; in more recent pre-war depressions they became somewhat less sensitive, and often (as e.g. in Germany and France during the present depression) non-ferrous metals — e.g., copper and tin — fell as much or more than these commodities. In 1908, for example, pig-iron fell in price in England by about 10 per cent and coal even less, while copper fell by some 30 per cent, lead slightly less and tin by 23 per cent.

It has been shown in Chapter V B above that during the present depression the prices of raw materials have dropped more rapidly than those of manufactured products. This phenomenon is not peculiar to the present crisis, but is one which is observed in all other periods of depression for which information is available. It was especially marked in 1920-1921 ; in the latter year the Swedish official price index for finished products, for example, stood 27 per cent higher than the index for raw materials, and the National Bureau of Economic Research price index for manufactured goods in the United States stood 33 per cent above the index for raw materials (both groups of indices are based on 1913). As recovery from the depression took place, the margin between the indices gradually narrowed. During the depression of 1907-08, raw materials dropped in price by 11 per cent in the United States, while manufactured goods fell by 8 per cent.

Particular attention should be drawn to the differences between the price movements of producers' and consumers' goods in this and previous depressions. It has been shown in Chapter VI D above that the decline in the prices of producers' goods during the present depression has on the whole been considerably less than in the prices of consumers' goods. The available evidence suggests that this is contrary both to the experience of 1920-21 and to pre-war experience. In 1921, the National Bureau of Economic Research index for producers' goods fell by 39 per cent, while consumers' goods fell by 30 per cent. In

Canada, producers' goods (including materials) fell by 31 per cent and consumers' goods by 23 per cent ; producers' equipment, however, rose in price in 1921 and fell relatively little in 1922. Official indices for the United States of America and Germany show that, during the crisis of 1907-8, producers' goods in the former country fell by 15 per cent and consumers' goods by 7 per cent, while in Germany producers' goods fell by 24 per cent and consumers' goods by 9 per cent. The relatively slight decline in the prices of producers' goods during the present depression is largely due to the fact that many raw materials for these commodities, in particular iron and steel products, have come more under the control of trusts and cartels, which attempt to maintain stable prices in good times and bad.

Retail prices declined much less than wholesale prices during the depression of 1920-21 ; the higher level of the former throughout the period 1922-1928 has been discussed in some detail in a previous section. Retail price indices during pre-war depressions are available for very few countries ; such indices as exist, however, uniformly indicate that retail prices either did not fall at all, or, if they did, did not fall as rapidly as wholesale prices. In 1908, for example, wholesale prices in the United Kingdom were about 10 per cent and in the United States of America about 5 per cent lower than in 1907 ; in England, the retail price index published by the Ministry of Labour was 3 per cent higher, and in the United States the retail price index of the Bureau of Labour was 2 per cent higher. Wholesale prices in England were, according to Sauerbeck's index, 7 per cent lower in 1902 than in 1900, while retail prices were almost 2 per cent higher.

Money Rates.

The present depression has brought about a considerable decline in the rates of short-term money. A comparison with the previous crises shows, however, that this decline has not been greater than at certain periods in the past. The following table shows the average market rate in the year of the outbreak of the more important crises, the lowest subsequent annual average rate and the percentage reduction between the two years considered.

Although the table gives only yearly averages, it shows clearly that the present reduction in money rates is not appreciably greater than that which occurred during various depressions in the past. Open-market rates have dropped by one-half and more on earlier occasions ; monthly figures of rates on the New York market show a decline of 75 per cent between June 1873 and July 1874 (from 17 to 4.30 per cent), and of about 70 per cent

(from 6.25 to 2 per cent rate) on commercial paper between October 1929 and June 1931.

Table V. — Open-market Rates during Certain Depressions.

	London	New York
1873	4.70	10.25
1875	3.14	5.51
Reduction in percentage	33	46
1890	3.88	5.66
1892	1.76	4.13
Reduction in percentage	55	27
1900	3.70	4.35
1902	2.97	4.31 [1]
Reduction in percentage	20	1
1907	4.49	6.37
1909	2.28	3.98
Reduction in percentage	49	37
1920	6.40	7.12
1922	2.65	4.42
Reduction in percentage	59	39
1929 (1st half)	5.08	5.80
1931 (1st half)	2.39	2.43
Reduction in percentage	54	59

The absolute level to which interest on short-term capital has fallen during the present depression is, however, exceptionally low in certain countries. In recent months, the money rates have indeed tended to rise.

The changes in discount rates are shown in the Table VI which requires no comments as the movement has been similar to that of open market rates.

On the other hand, the yield of long-term capital declined very little. Years of declining long-term rates have in the past usually been followed by years of recovery in production and trade. On the other hand, some time before the downward turn in productive activity, bond yields have usually risen considerably. In the recent period of prosperity in the United States, bond

[1] 1901.

Table VI. — Percentage Changes in Official Discount Rates during Certain Depressions. [1]

	France	Germany	Italy	Netherlands	United Kingdom
1873-1875 . .	43	.	.	33	48 [2]
1890-1892 . .	17 [3]	29	—	11	47
1900-1902 . .	34	38	0	14	16
1907-1909 . .	25	35	1	40	39 [4]
1920-1922 . .	8	+ 32	4	5	45
1929 (1st half)-1931 (1st half).	43	24	18	55	47

yields rose from 4.37 per cent in March 1928, which was the lowest level reached since the war, to 4.76 per cent in October 1929, and, although they have since declined, the low figure of 1928 has not again been reached.

Table VII. — Bond Yields during Certain Depressions. [5]

	United Kingdom	U. S. A.	Denmark
1873	3.28	—	4.35
1875	3.24	—	4.33
Reduction in percentage	1.2		0.5
1890	2.87 [6]	—	3.70 [5]
1892	2.71	—	3.58
Reduction in percentage	5.6		3.2
1900	2.92 [7]	4.15	3.79
1902	2.75	4.06	3.55
Reduction in percentage	5.8	2.2	6.3

[1] *Sources : Bulletin de la Statistique générale de la France. League of Nations Monthly Bulletin of Statistics.*
[2] 1873-1876.
[3] 1891-1893.
[4] 1907-1908.
[5] Source : *Standard Statistics.* Dr. Pedersen : *Forholdet mellem Renten af Laan med kort og lang løbetid i perioden 1855-1930,* Økonomi og Politik, November 1930.
[6] 1891-1894.
[7] 1901-1903.

Table VII. — Bond Yields during Certain Depressions. (continued).

	United Kingdom	U. S. A.	Denmark
1907	2.97	4.51 [1]	3.70 [2]
1908	2.91	4.33	3.68
Reduction in percentage	2.0	4.0	0.5
1920	5.32	5.88	6.22
1922	4.42	4.94	4.94
Reduction in percentage	16.9	16.0	20.6
1929 (1st half) . .	4.53	4.67	5.11
1931 (1st half) . .	4.29	4.43	4.66
Reduction in percentage	5.3	5.1	8.8 [3]

Some indication of the behaviour of the long-term capital market in countries not included in the above table is given in the following table showing the changes in prices of Government bonds:

Table VIII. — Changes in Prices of Government Bonds. [4]

	France	Netherlands	Germany	Italy
1891-1893	+ 4.5 [5]	+ 6.3	+ 2.0	+ 1.7
1900-1902	+ 1.5 [6]	+ 3.3	+ 6.5	+ 3.0
1907-1909	+ 3.1	+ 2.6	+ 0.5	+ 2.1
1920-1922	+ 6.6	+18.0	+ 8.0 [7]	+ 3.7 [8]
1929-1931 [10]	+15.1	+ 4.0 [9]	+ 5.6	+ 7.5

[1] 1907-1909.
[2] 1908-1909.
[3] Yearly average 1929-1930.
[4] Sources: *Statistique générale de la France, Annuaire statistique.*
[5] 1890-1892.
[6] 1900-1901.
[7] 1920-1921.
[8] 1920-1923.
[9] 1929-1930.
[10] Average 1929 compared with the first half of 1931.

It would appear that the years of the cheapest money did not correspond with the years of industrial recovery. The little that is known about the month-to-month development of production suggests that, as a rule, production began to expand when money rates were still tending downwards, while, after recovery had been in progress for some time, the price of capital also began to rise. Building activity was especially influenced by the behaviour of the long-term interest rates.

The drop in the prices of shares, on the American and German markets at all events, has been more serious during the present depression than in any previous crisis. The index of share quotations on the New York Stock Exchange dropped 30 per cent from 1873 to 1874, 29 per cent from 1883 to 1884, 37 per cent from 1907 to 1908 and 41 per cent from 1920 to 1921 ; between 1929 and 1930 the drop was 60 per cent [1]. In Germany, prices of stocks dropped 22 per cent in the course of 1900 and 14 per cent between April 1906 and August 1907 [2], while the decline from 1929 to 1930 (annual average) was 21 per cent and between April 1927 and June 1931 about 62 per cent. In France also, the recent drop in the prices of shares appears to be greater than during earlier depressions, although the yearly data allow of only approximate comparison. Between 1890 and 1893 prices of shares on the Paris Bourse declined by almost 10 per cent [3], from 1899 to 1902 by 21 per cent, from 1907 to 1908 by 5 per cent and from 1920 to 1921 by about 25 per cent. From 1929 to 1930 the decline was about 15 per cent [4] and continued in 1931. Between February 1929 and June 1931 there was a decline in the prices of stocks of about 40 per cent [5].

At the moment of the break on the stock exchanges in 1929, there was no pronounced credit stringency accompanied by a rapid rise in money rates, such as occurred during certain of the previous crises, *e.g.* in 1873 and 1907. Not even in October and November of 1929 did money rates in New York rise as high as in 1907. This suggests that the organisation or the handling of the financial system has been improved.

General Comparison with some Earlier Depressions.

Certain points of similarity and difference between the earlier depressions and the present situation may now be briefly examined. A comparison with the post-war crisis of 1920-1922 seems to

[1] On basis of figures compiled by the Federal Reserve Bank of New York.
[2] Vierteljahrshefte zur Konjunkturforschung 5. 3. A.
[3] 288 shares of all classes ; index of the *Statistique générale de la France.*
[4] 300 shares ; index of the *Statistique générale de la France.*
[5] The figure of 56 per cent quoted in Chapter V C represents the reduction in prices of industrial shares only.

be of limited significance, as the early post-war years were a period of rapid readjustment of the economic organisation to peace conditions. For this reason the changes from the production and price levels of the war period have a somewhat different significance from the variations which occurred during other periods of depression. In view of these special circumstances ten years ago, it is surprising indeed that many fundamental production and price curves followed practically the same course as they have done since 1929, at all events up to the beginning of 1931. Indeed, if an upward swing of the business cycle had begun in the spring of this year, the similarity would have been striking.

Some fundamental differences must, however, be noticed. Most currencies were on a paper basis in 1920-1922, and the movements of wholesale price levels in different countries varied greatly. In many of them the fall in prices was short-lived and was quickly succeeded by a rapid inflation, which naturally affected the movement of business conditions in the countries concerned. For this and other reasons the severity of the depression in the second year after the turn varied much more from country to country than at present.

Another difference is that during the 1920-1922 depression the level of wages was in most countries rapidly adjusted downwards. In some countries wages in manufacturing industries declined in the course of two years by as much as 30-40 per cent. The comparative ease with which nominal wages were then reduced was probably partly due to the feeling that a lower level of values in general was natural after the war and would prove permanent.

In one respect the reduction of values was much greater ten years ago than it has so far been during the present depression. The decline in bond yields was rapid, and in many countries about twice as great as that which has occurred since the autumn of 1929. The large drop after 1920 naturally tended to stimulate real investment in residential buildings, new plant, etc. It is worth noting that the recovery in the investment trades (constructional trades, industries manufacturing producers' equipment and durable consumers' goods) appears to have begun very early during the depression and the need for real investment to have been great. In some countries indeed investment activity was interrupted for only a brief period. In the United States, for instance, the potential need for buildings was considerable and the number of building permits was increasing rapidly in the second half of 1921, many months before the long-term rate of interest reached its lowest point. In other countries also, the need for new real investment, partly arising out of the post-war economic reconstruction, seems to have

been very large ; but rent legislation and other circumstances tended to discourage construction of residential buildings.

If the present depression be compared with those of the pre-war period, certain differences are at once noticeable. The price system, as already mentioned in the last chapter, has been much less flexible in recent years. It is true that even prices subject to monopolistic regulation have come down considerably during the present depression, but the attempts towards control have much delayed this movement. Similarly, it is probable that wages have fallen less between 1929 and the summer of 1931 than during some of the major pre-war depressions.

In periods of depression before the war the reactions on *prices* were generally stronger than those on the *volume* of production or trade. The monopolistic tendencies prevailing since the war have naturally to some extent reversed this situation, as has been shown above with regard to iron and steel.

In many other respects, of course, the post-war economic structure differs from that of the end of the 19th or the beginning of the 20th century. The extension of the social insurance system in the last two decades has affected the reactions of the labour market in most manufacturing countries.

Another difference is that in agriculture capitalistic methods of production have been introduced to an increasing extent in most countries. Agriculture uses more mechanical appliances and is more dependent on conditions on the capital markets. It is therefore likely to be more affected by the business cycle than before the war.

For Germany, the complete change on the capital market is of extraordinary importance. While Germany was, before the war, a capital-exporting country, able to reduce her net foreign lending during years of crisis and depression, her economic organisation is now dependent on foreign capital and has to face a reduction of capital imports or even a net efflux of capital in periods of crisis.

In some respects there is a striking similarity between the present depression and that of the eighteen-seventies ; in both cases severe reaction followed a period of tremendous activity, especially in investment trades. They were both preceded by a period of marked technical progress and capital investment and by wars and monetary disturbances ; agricultural prices fell more rapidly than prices in general ; the agricultural crisis in the seventies bears some resemblance to the present crisis at least as far as European agriculture is concerned. European agriculture in both cases was feeling the first adverse effects of a change in the world agricultural conditions. In the eighteen-seventies, as at present, there were fears of a gold shortage and

at the same time a series of monetary reforms which increased the demand for this metal. A sudden breakdown of important stock exchanges appears to have contributed to spreading the depression. The overseas countries like the Argentine, Australia and South Africa, however, seem to have remained relatively prosperous during the earlier crisis.

In the 'eighties productive activity suffered no violent setbacks. Although the tendency towards falling prices had an adverse psychological effect, statistics show that economic progress during that period was very large, probably not much less than during other decades of the last half-century before the war. The fact that European agriculture was during the whole decade in a very depressed state did not prevent an expansion and prosperity in other industries. It is probable, however, that the volume of real investment in the 'seventies and 'eighties did not increase as fast as it did from the middle of the last decade of the 19th century.

The boom of the 'eighties broke in 1890 under conditions of serious financial strain. Although some improvement took place in 1893, the peaks in the business curves of that year were very low. In the United States and the United Kingdom, they did not reach the line representing the long-term business trend. On the whole, therefore, the years 1891-1895 were one long period of depression.

With the latter half of the decade a period of great prosperity began. There was a rapid growth of electrification. The output of non-ferrous metals increased rapidly; the network of telegraph and telephone communications was more and more extended with momentous consequences for business and conditions of life. Further, in many chemical industries a rapid expansion began which has since continued almost without interruption.

The depressions which followed — those of 1900 and 1907 — were relatively brief. As already indicated, reductions in the volume of production were very small, although certain price series fluctuated a great deal. The variations in financial conditions were considerable. For instance, both short-term interest rates and stock-exchange quotations were subject to large fluctuations. The depression of 1900-1901 was less international in character than the others referred to in this chapter. For instance, it was felt very little in the United States, where a boom, after a brief interruption, continued up to 1903.

With these brief remarks and certain observations made in earlier chapters as a background, certain special aspects of the various depressions of the last half-century may be examined which serve to throw some light on the economic events of the last two years.

Even the most pronounced depressions following upon violent booms have been followed by some recovery not later than two years after the turn, but in such cases recovery has been relatively weak and often followed by a new period of depression. In other words, the peak of the first business cycle after an exaggerated boom has in several cases been submerged. This was the case, for instance, with the revival of 1876, which was unable to relieve to any considerable extent the depressed business conditions of the period 1873-1879. Similarly, as already indicated, the depression after 1890 lasted for about five years. The course of events was quite different after the post-war depression of 1920-1922, which was followed by a period of re-organisation and large capital investment. It is not improbable that the possibilities of rapid expansion in investment trades in the last decade explains the relatively rapid recovery of business.

The course of the various depressions has been largely influenced by the character of the boom periods which preceded them. When a fairly long period of very large investment precedes the crisis, as for instance in 1873 — in other words, when investment has reached a certain temporary saturation point and, in the absence of a considerable decline in long-term interest rates, there is no demand for large new investments which might bring about a revival of business — the depression is likely to prove especially intense and protracted. On the other hand, if the turn of the business cycle comes before such a saturation point is reached, the unsatisfied needs of investment will stimulate a recovery in the industries producing investment goods relatively quickly, and thus tend to cut short the depression. On the whole, conditions which make for stability of investment tend to smooth out the business cycle, while exaggerated investments during certain periods, or other circumstances which make it difficult to maintain the volume of investment, have the opposite effect. This is one reason why fluctuations in business conditions after great wars appear to be relatively great.

The more uniform and worldwide character of the present depression as compared with earlier depressions seems to be due partly to the fact that the world has become more of an economic unit — a fact which has already been stressed several times. A comparison with earlier cycles also serves to emphasise the influence of political difficulties and political instability during the last few years. This factor has been of particular importance in connection with the weakness of the tendencies making for recovery in the summer of 1931. This question will be discussed in the next chapter.

It would be superfluous to summarise here all the various circumstances which have contributed to the exceptional severity and long duration of the present depression. The importance of two of them stands out very clearly. Agriculture became involved in a crisis at about the same time as industries producing raw materials and manufactured goods and, owing to the general financial instability, the repercussions of the unfavourable conditions in countries producing primary products have been very great. Secondly, the present depression, like that of 1873, was preceded by a long period of extraordinary activity in real investment, and in many directions a temporary saturation point had been reached by the time the business cycle turned. For this reason, the demand for new investment is now relatively small ; recovery in this field has been made all the more difficult owing to the influence of incomplete flexibility of certain price and cost elements, for example the long term rate of interest.

The first of these factors appears to have been largely responsible for the rapid spread and intensification of the depression : the second for the weakness of the forces making for recovery and thus for the long duration of the depression.

Forces making for Recovery during Earlier Depressions.

A study of the circumstances which appear to have brought about recovery after earlier severe depressions may suggest where signs of improvement in the present situation should be looked for and even perhaps what measures might contribute to such an improvement.

The factors which would appear to have been in some way connected with the recovery after depressions are as follows :

A. Factors making for increased production without necessarily increasing purchasing power in use.

1. Stocks of commodities may be reduced owing to a greater decline in production than in consumption during the period of depression. When stocks cannot be further cut down, purchases by retailers and others must keep pace with their sales and thus increase somewhat. Production is thereby stimulated and the increase in purchases may help to create a revival of optimism, which, in its turn, stimulates production.

2. A reduction of commodity prices accompanied by, or even occasioned by, a reduction in production costs may make it possible to buy a larger quantity of commodities with a given sum of money. Lower prices of certain raw materials and lower

wages have made it possible to finance larger investment with a given sum of savings, just as lower retail prices have enabled consumers to buy more consumers' goods. In other words, price reductions have sometimes led to larger sales and increased production of commodities. It is impossible, however, to say with certainty whether this has taken place or not on any particular occasion. As explained in Chapter VI E, cost and price reductions will have an effect of this sort only when they fail to reduce the total purchasing power in use, and their influence on the latter depends on the circumstances of the case.

B. Factors leading to an increase in the total volume of purchasing power in use.

1. Such an increase can be brought about through a changed relation between the demand for credit and the supply of new savings. Circumstances which tend to increase the demand for capital for real investment accordingly tend to increase purchasing power or to check its decline. In other words, increased investment is one means by which purchasing power may be increased. As explained in Chapter VI E, one way of increasing investment is to reduce costs in the investment trades ; real investment is likely to expand far more than in proportion to any reduction effected. An expansion in investment activity after a period of depression has also sometimes been called forth by new inventions and other forms of technical progress, rendering profitable the adoption of new machines and new methods of production requiring capital investment. Moreover, owing to the small amount of new investment during the first part of a depression, a need for certain forms of investment — for instance, in building — develops. This has occurred during most of the major previous depressions. The more insistent that need, the greater has, as a rule, been the stimulus to invest capital. In other words, the existence during the depression of a reserve of investment requirements has been a factor making for early and rapid recovery. It matters little from this point of view whether the investment is in producers' investment goods or in other investment goods — *i.e.*, durable consumers' goods, such as motor-cars, furniture, etc. Naturally, consumers often postpone purchases of the latter class of commodities during the first part of the depression, but the fact that this demand has been merely postponed may lead to an increase in purchases after a time.

2. Total purchasing power in use may also be increased by a reduction in the percentage of the national income which is saved. Such a reduction leads to an increase in the demand

for consumers' goods in comparison with a supply of such goods, unless production has changed accordingly. Hence the prices of such commodities tend to rise. Demand for credit and thus demand for investment goods is not reduced but rather increased under such conditions. In general, recovery in one group tends to stimulate recovery in others. Not only does an increased output of consumers' goods lead to a growth in investment, but this growth in investment tends to increase employment and purchasing power and thus the production of consumption goods. This is, in fact, the reverse of the process which takes place when a depression has begun.

3. Purchasing power may also be increased through a growth in the demand for credit to buy consumers' goods.[1] This might occur, for instance, if manufacturing industries were forced to pay higher wages and obtain the means of doing so through increased bank credit. There is no evidence to show that this has ever taken place on a considerable scale. On the other hand, Governments unable to balance their budgets have often borrowed instead of increasing taxation. In such cases the borrowed money has been used to maintain demand for consumption goods.

As already mentioned, the information available regarding earlier depressions is so scanty that it is impossible to ascertain what rôle any one of the factors mentioned above has played in bringing about recovery in each individual case. The general impression obtained from a study of earlier cycles is, however, that in most cases a stimulus towards recovery has come from increased investment. Such an increase as already stated has been mainly due to : (1) A reduction in certain price and cost items, both in long-term interest rates and in wages and raw materials in investment trades ; (2) Technical progress which has called for the production and installation of new equipment and the development of new countries ; (3) A need for new investment due to the restriction of investment activity during the depression. In this respect building activity seems to have been especially important. Since the eighteen-nineties, in countries for which information is available, building activity has regularly fallen off before the downward turn of the cycle. During the real boom years, credit conditions have been stringent, interest rates high and capital for the financing of construction has been difficult to secure. Hence some time after the outbreak of a depression, under the combined influence of reduced interest rates and costs and an accumulated need of new building,

[1] This, of course, comes to very much the same as 2 above for it involves a reduction in net national savings.

constructional activity has been resumed. This resumption of activity appears to have occurred only a year or two after the crises of 1900 and 1907.

In the United States, such a revival took place as early as 1921, not much more than a year after the outbreak of the severe post-war depression. In the following years, investments in motor-cars, roads and electrification were also large. It seems highly probable, as already mentioned above, that the existence of a need for such large and such varied investments was an important factor in bringing about a speedy recovery. In other countries as well as in the United States, investments in these years were very considerable in manufacturing industries, partly owing to the fact that new machinery and equipment of much greater efficiency than those of pre-war days were put on the market. Old machinery was accordingly replaced on a large scale. The liquidation of less efficient firms on this as on many other occasions left room for an expansion of the capacity of those that survived.

Railway building and investment in railway equipment has been one factor other than housing that has played a large rôle in the development of the business cycle. This factor was of course of more especial importance in the last century. During the last decades before the war a large part of such investment occurred in other countries than those which supplied the capital. The capital-exporting countries found it more profitable to open up new countries — for instance, through investments in communications of different sorts — than to invest at home. The orders thus obtained for their export industries naturally had very much the same influence as if investment had taken place within their own territory, although temporary transfer difficulties may have occurred.

The rapid increase in population had much to do with this growing need of investment. Housing and communications were of course most directly affected by this factor.

To what extent increased sales owing to price and cost reductions have contributed towards recovery during the earlier depressions it is difficult to judge. It seems not improbable, however, that this factor has contributed to revival on certain occasions — in particular in the eighteen-eighties, when in some countries no marked increase in real investment seems to have taken place during the first years of recovery.

The effects of a reduction in cost owing to increased efficiency may be quite different. It tends to increase the volume of production, but, if it does not involve more investment, it is doubtful if it stimulates conditions in other industries and thus contributes to a general recovery.

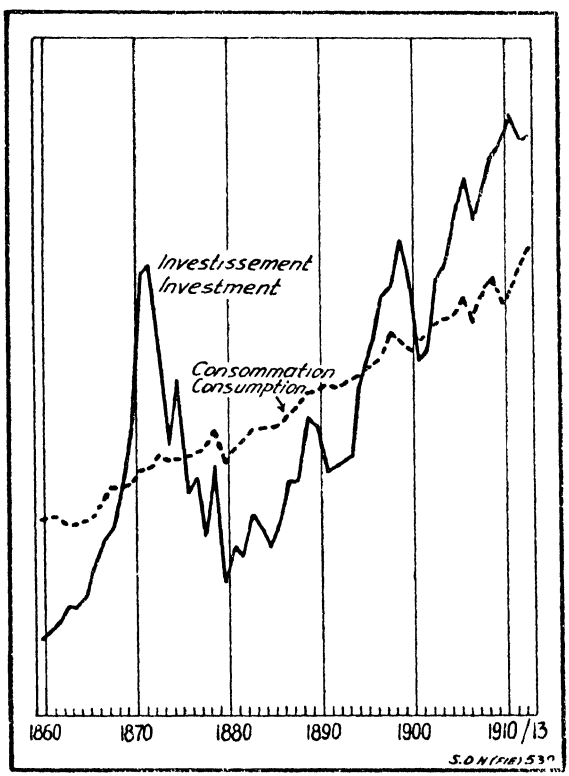
Lack of data also makes it impossible to say whether the exhaustion of stocks has been an important factor in stimulating a revival of business prosperity.

Many economists attach great importance to the existence of what may be called a cyclical movement in human psychology. After a period of pessimism, business men tend to regard recovery as natural, and in preparation for this recovery begin to buy more freely.

The fluctuations in real investment may be illustrated by the chart 40, which shows the change in the volume of investment in Germany. Although available data relating to investments

Chart 40.

INVESTMENT AND CONSUMPTION [1] IN GERMANY 1863-1913.



[1] Chart prepared by the Institut für Konjunkturforschung.
The index of investment comprises consumption of copper, lead, zinc, pig-iron. asphalt, new railroads built, joint-stook companies formed and new bond issues,
Index of consumption comprises consumption of meat, herrings, coffee, tea, tobacco, colonial fruits, textiles and imported furs.

are incomplete and the actual fluctuations therefore probably exaggerated on the chart, this chart serves to give a rough indication of the tendencies. The severe depression after 1873 must have been connected with the drop in investment activity. A heavy decline in interest rates and a reduction in wages and raw-material prices failed to call forth any substantial increase in private investment in Germany. In the previous decade, the volume of investment, as already remarked, had been very large. Secondly, the agricultural depression counteracted the tendencies towards expansion elsewhere. A very large part of the new investments in this decade were effected by public authorities.

In view of the foregoing considerations, the situation in 1931 appears in some respects rather serious. It is uncertain whether commodity stocks have been reduced to such a degree that a stimulus from a tendency towards replenishing them can be expected until recovery is well under way for other reasons. Again, conditions do not seem to favour a considerable increase in investment. The very large investment which took place in most countries in the years preceding 1929 has created a surplus capacity almost everywhere, and it is not clear in what directions new investment should be made in the near future. Building was active, not only until the outbreak of the crisis, but in some cases one or two years longer. While this helped to mitigate the depression during 1930, it has reduced the chances of an early increase in construction and thus of a stimulus to recovery from that quarter. In the second place, the cost reductions in the investment trades have been very small relative to price reductions elsewhere and the long-term rate of interest has declined very little. In the third place capital is not flowing freely to countries where there might be a need of new investment. It is impeded, above all, by lack of confidence, which makes capitalists demand high risk premiums. Finally, there is a widespread feeling of insecurity in business circles regarding the future course of the price level. Many find ground for anxiety in the gold situation and many are convinced that, if prices continue to fall or even fail to rise, heavy wage reductions will be necessary; strikes and lock-outs will occur ; the burden of debts will be increased and many other difficulties will arise.

In forming an opinion as to the chances of a real recovery in the near future, it should be borne in mind that the forces making for recovery may be strengthened and the conditions radically altered by organised efforts of a national or international character. Further, the above remarks refer to conditions in a world in which the leading currencies are linked to gold. The situation may be profoundly changed by the introduction of paper standards.

Chapter VIII.

THE SITUATION IN THE SUMMER AND EARLY AUTUMN OF 1931.

Financial Conditions.

The financial history of the summer of 1931 has been somewhat dramatic. Waves of optimism and pessimism have followed one another very rapidly, but confidence has definitely tended to decline since April. During that month, not only did it appear that the rate of the depression had slowed down, but many competent observers were of the opinion that the improvement over and above the normal seasonal movement which had taken place in the United States of America and some other countries would continue. Unfortunately, these expectations have not been fulfilled. The existence of certain financial strains, the natural result of a long depression, have led to a number of failures of banks in certain countries ; these failures have had worldwide repercussions. Some purely financial circumstances seem to have played a larger rôle during the last four months than in earlier periods of the depression.

The suspension of payments by an important Austrian bank in May shook confidence in the financial condition of Austria, and the position of Germany also began to give rise to apprehension. In Germany, a large part of the enormous foreign investments on short-term, estimated at about fourteen milliard marks in December 1930, had been withdrawn in the course of the spring. The foreign exchange position of the Reichsbank as a result had been much weakened. As confidence in the financial stability of Germany declined still further in May and June, withdrawals of foreign funds continued ; it has been estimated that, during the first seven months of 1931, 2,900 million marks of foreign short-term funds were withdrawn. These withdrawals created great difficulties for many of the commercial banks.

The proposal made by President Hoover in June that all payments on account of reparations and war debts should be

suspended for one year brought a measure of temporary relief. The immediate rise in the prices both of bonds and of stocks was a reflection of the revival in confidence. Even commodity prices, as will be seen below, rose considerably in the following week.

This revival of confidence was, however, shortlived. In spite of the fact that the Reichsbank obtained large new credits (630 million marks) through the Bank for International Settlements, certain Central Banks and a New York financial group, the financial position was very uncertain.

One of the most important German banks suspended payments in the beginning of July, and the gravity of the situation rapidly increased. To protect the gold stock and foreign exchange reserves of the Reichsbank which, in spite of the new credits, had declined about 1,000 million marks since the beginning of the year, severe restrictions were placed on the purchase of foreign exchange, and on the withdrawal of deposits in German commercial banks and savings banks.

During the first half of August, conditions on the capital market became slightly more normal. The discount rate, which had been raised to 15 per cent, was again lowered to 10 per cent. The stock exchanges in Germany, however, which had been closed early in July, did not re-open. Negotiations were opened between German and foreign bankers with a view to preventing further withdrawals of foreign funds and to replace loans which were to fall due in the near future. These negotiations led to an agreement which is to run for a period of six months. Nevertheless the financial situation of Germany towards the end of August was still highly insecure.

Serious financial difficulties were also experienced in some other countries. In general, the position of the European debtor States was less stable than earlier in the depression. This is reflected, for instance, in the quotations of the bonds of these countries on the stock exchanges of the leading capital-exporting countries.

The financial position of many debtor countries in other continents had already become grave long before the summer of 1931. A number of them had been obliged to depart from the gold standard, and the currencies of some of these continued to depreciate. [1] In certain cases the service of the foreign debt obligations was discontinued.

All these financial disturbances inevitably affected the London money market. During the spring and early summer, short-term funds moved towards London and the open-market

[1] See Table III below.

rate there fell to a low level — from 2.59 per cent in April to 2.09 per cent in June. On the outbreak of the crisis in Germany, however, funds were withdrawn from London, largely to Paris, and the Bank of England was obliged to export a considerable amount of gold. The open-market rate rose to 2.60 per cent in July (monthly average). During the last three weeks of July alone, the gold reserve of the Bank of England was reduced by no less than £32 million, or about 20 per cent. A credit of £50 million was granted to the Bank of England by the Federal Reserve Bank of New York and the Banque de France, but in spite of this the sterling exchange remained low as the outflow of foreign funds continued and the financial situation of the United Kingdom became more and more disquieting.

That the recovery which seemed to be taking place in the spring was interrupted in the summer may be clearly seen from a study of financial statistics.

The discount rates at the end of September were in many countries substantially higher than three months earlier. The most important exceptions were certain capital-exporting countries such as the United States, France and Switzerland.

Table I. — Central Banks' Rates of Discount, 1931. [1]

	End of May	Middle of August	End of September
	per cent	per cent	per cent
Germany	5	10	8
Austria	5	10	10
Hungary	5 ½	9	8
United Kingdom	2 ½	4 ½	6
France	2	2	2
United States (New York)	1 ½	1 ½	1 ½
Switzerland	2	2	2

The open-market rates followed a broadly similar course. They rose rapidly in the debtor countries and continued to fall in some of the lending countries, but rose in others more or less in accordance with discount rates.

The magnitude of the gold exports from certain countries to which the financial difficulties gave rise is shown in the following table. The principal recipients of this gold, as well as the newly-mined gold, were France, the United States and the Netherlands.

[1] Source : *League of Nations Monthly Bulletin of Statistics.*

In June and July, practically the whole amount went to France. Naturally, some countries reduced their foreign exchange reserves instead of their gold stock, but with much the same effect on their financial position.

Table II. — Changes in the Gold Reserves of Certain Central Banks.[1]
(000,000's.)

1931	Germany (RM.)	United Kingdom (£)	France (French francs)	United States ($)	Switzerland (Swiss francs)	Netherlands (Florins)
April .	— 47	+ 2.7	— 500	+ 46	0	+ 4
May .	— 20	+ 4.9	+ 18	+ 89	0	0
June .	— 969	+ 11.9	+ 792	+ 133	+ 92	+ 47
July .	— 58	— 30.7	+ 1981	+ 61	+ 28	+ 89

The financial difficulties are also reflected in the figures for notes in circulation. In many countries where stringent monetary conditions prevailed, the note issue increased substantially from June to July. Average note circulation in July was above that of the previous month by 4 per cent in Germany, 9 per cent in Austria and 30 per cent in Hungary.

The depreciation of certain currencies is illustrated by the following table. In some of the South American countries and in Australia no further depreciation has taken place in recent months ; nevertheless, the downward movement of prices has further weakened their financial position.

Table III. — Depreciation of Certain Currencies. [1]
(Percentage Discount.)

1931	On New York				On London	
	Argentine	Brazil	Uruguay	Venezuela	Australia	New Zealand
January .	— 28	— 24	— 34	— 4	— 17	— 6
April . .	— 21	— 39	— 35	— 12	— 23	— 9
June . .	— 27	— 37	— 43	— 11	— 23	— 9
August .	— 33	— 46	— 48[2]	— 10[2]	— 23	— 9

[1] Source : *League of Nations Monthly Bulletin of Statistics.*
[2] July.

The yield of domestic high-grade bonds rose slighthy in the lending countries, but much less than that of bonds of borrowing countries, as shown in the following tables. In other words, the risk premium on foreign bonds increased considerably, a fact which reflects very clearly the weakening in confidence.

Table IV. — Index Number of Bond Prices.[1]
(1928 = 100.)

1931	New York	London	Paris
May 6	98.2	95.8	110.9
June 3	96.7	94.2	110.6
July 1	98.1	96.5	108.1
August 5	97.1	92.9	110.5
September 16	94.3	89.1	109.6

Table V. — Price of Foreign Government Bonds in London.[2]
(In Shillings)

1931	Argentine 4 % Recess	Austria 7 % Internat.	Brazil 6½ % 1927	Chile 6 % 1929	China 5 % 1912	Hungary 7½ %	India 4½ %	Australia 5 %
May 20	82½	94½	53½	74½	43	102	79½	70
June 3	78½	101½	44	68½	40	100	74½	68
June 10	82	102	55½	72½	41	98	75	69
June 17	82	102	56½	66½	41	93½	74	69
June 24	85½	88½	60	65½	44	96½	75	69
July 22	81	103½	64	56	46	88	76	78½
Aug. 18	75½	80	59½	35	43	78	74	74½
Sept. 16	60	65	45½	30	40½	65	74	68½

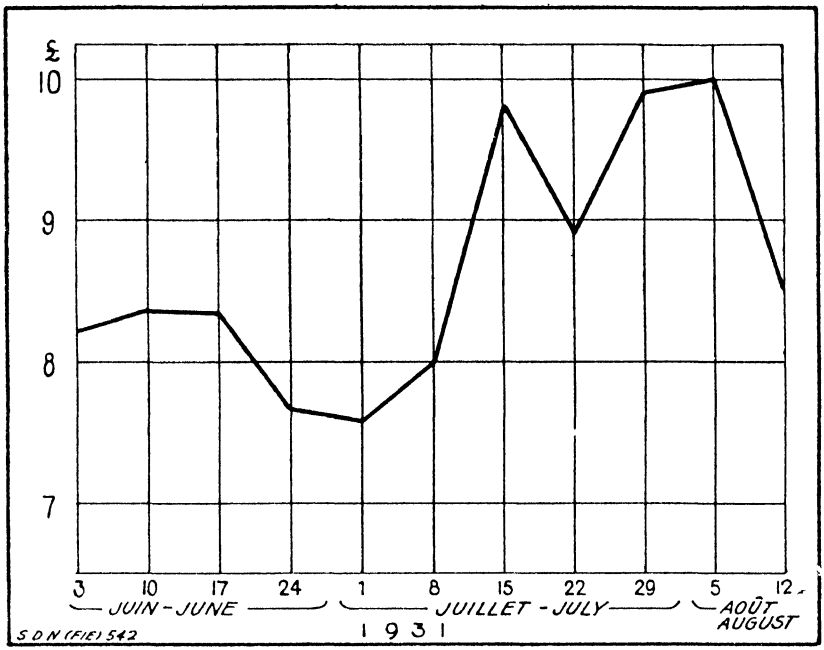
The changes in the quotation of the German Young Loan, as shown in Chart 41, are significant. A comparison with Table V shows that the quotations of other European and South-American foreign bonds followed a broadly similar course, although the fluctuations were less considerable.

The spring revival on the Stock Exchange came to an end in March and was succeeded by a downward movement in most

[1] Source : Index Number Institute, Incorporated.
[2] Source : *Economist.*

Chart 41.

YIELD OF THE YOUNG LOAN ACCORDING TO LONDON QUOTATIONS.



Source : *The Economist.*

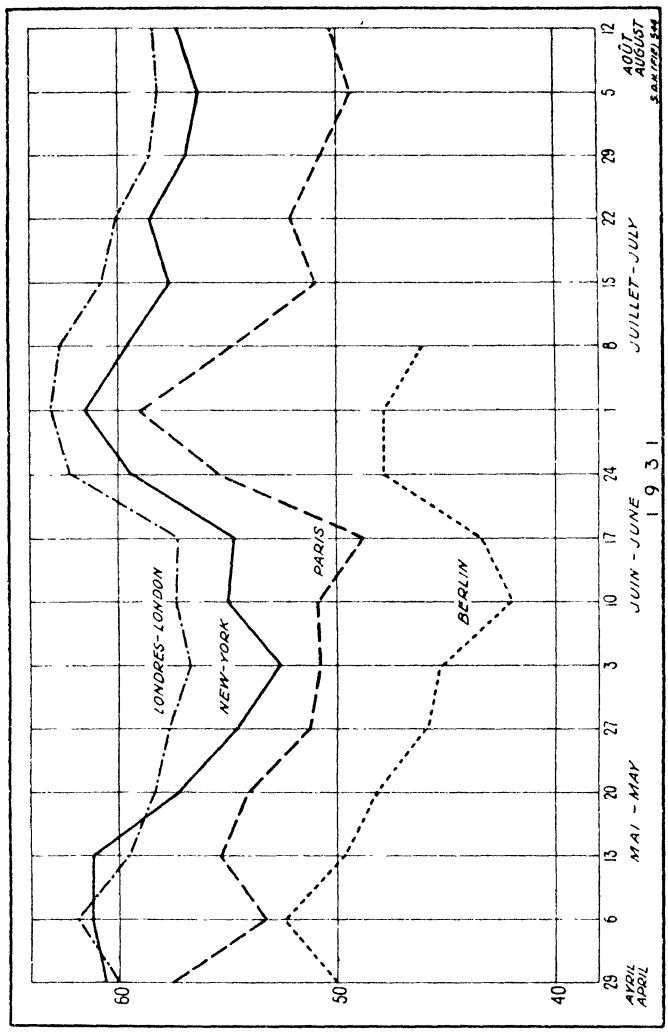
countries as may be seen from the Chart 42. This decline was intensified in May, and very low levels were reached at the beginning of June. On the announcement of the Hoover proposal, the markets rallied sharply, but after a week or two the downward movement was resumed. In the first half of August, conditions on the stock exchanges were relatively quiet and the level of quotations in most countries was a little above the lowest point reached in June. However, in the following weeks the decline was rapid and was consideracly intensified in the month of September. [1]

The available figures for business failures in the leading countries show no increase compared with last year. This would appear to indicate that the banking system has been able to maintain sufficient flexibility to avoid financial break-

[1] At the end of that month, the Index Number Institute's stock market indices (1928=100) stood at 57 in London, 41 in New York and 37 in Paris (compare Chart 42).

Chart 42.

INDEX NUMBERS OF STOCK MARKET PRICES IN 1931.



Source : *Index Numbers Institute Inc.*

down of business firms on a large scale. On the other hand, the number and importance of bank failures has increased, not only in some European borrowing countries, but notably in the United States. Banking difficulties in the last-named

country, indeed, became increasingly acute during the early autumn of 1931. The financial position of farmers has been further weakened, but the number of forced sales of farms has not so far reached serious proportions.

International capital movements have been entirely under the influence of the events which were described at the beginning of this chapter. While the movements of liquid funds have been very large, the lack of confidence has prevented considerable issues of long-term loans for foreign account. In the United Kingdom the amount of new issues for foreign account in the second quarter was only one-half of that in the corresponding period of last year, while in the United States it fell to nearly one-fifteenth. It is noticeable, however, that in the course of the first half of the year France lent large sums to certain South-Eastern European countries. In all transactions of this sort the risk premium has been very considerable. There are signs that towards the end of the summer confidence in the financial stability of Europe had been so shaken that it became increasingly difficult even for first class financial houses and business firms to obtain renewal of short term credits granted by bankers in the financially strongest countries. This was one of the most serious aspects of the financial crisis in August.

The figures for new capital issues, which are given in the table below, indicate that the volume of investment during the second quarter of 1931 has been on a lower level than during the first quarter of the year except, possibly, in Germany. In the United Kingdom and the United States, the total for the second quarter of 1931 is only about one-third of the figure for the corresponding period of last year.

Table VI. — Capital Issues. [1]

(000,000's omitted.)

	France (Francs)	Germany (RM.)	United Kingdom (£)		United States ($)	
	Total	Total	Total	Foreign	Total	Foreign
1930						
1st quarter . . .	6,927	220.5	69.6	33.3	2,145	297
2nd quarter . . .	4,746	93.9	72.3	35.7	2,718	471
1931						
1st quarter . . .	6,024	136.8	45.3	24.0	1,233	147
2nd quarter . . .	4,239	330.9	25.5	18.9	960	33

[1] Source : *League of Nations Monthly Bulletin of Statistics.*

Production.

It is clear from the above account that financial conditions have been much aggravated since the spring. The downward movement in production, on the other hand, has been less pronounced. It is true that the spring revival in industry has not continued ; but the recession in the course of the summer has been relatively small. On the whole, the second quarter of the year has been a period of stagnation in production rather than of intensified decline. (See the production charts in Chapters IV and VI D.)

The figures for unemployment point to much the same conclusion.

Table VII. — Unemployment. [1]

	Germany [2]		France [2]		Italy [2 3]		United Kingdom [2 3]		United States [4]	
	1930	1931	1930	1931	1930	1931	1930	1931	1930	1931
April	2,786	4,358	11	69	372	670	1,309	2,028	89	74
May	2,634	4,053	12	57	367	635	1,339	2,020	88	74
June	2,641	3,954	10	51	322	574	1,342	2,037	86	72
July	2,765	3,990	9	51	342	638	1,406	2,074	82	70
August	2,886	4,195	11	54	376	693	1,501	2,143	80	70

The situation has, however, been very different in various industries. On the whole, those producing consumers' goods other than motor-cars have been able to maintain the level of output reached in the spring. In some countries the production of these industries is even higher than last year, while in the rest only a slight reduction has taken place. For instance, in the United States the output of shoes, silk, rayon, cotton goods and tiles has increased considerably and is much above the level of the same period in 1930. In some cases — for instance, in the boot and shoe industry — the increased demand would seem to be due to the fact that delayed purchases can no longer be put off. In Germany, the index of the output of textile goods (1928 = 100) rose from 80 in the first quarter to 87 as an average for April and May. Poland reports an increase in the production of textiles of nearly 10 per cent. In France, on the other hand, there was a decline of 7 per cent.

[1] Source : *League of Nations Monthly Bulletin of Statistics.*
[2] Number unemployed in thousands.
[3] Wholly unemployed.
[4] Index of employment (1926 = 100).

Industries producing the more expensive consumers' goods, such as motor-cars, and equipment goods — in other words, those the demand for whose products involves the investment of savings — have not fared so well. It would appear that their output has continued to decline rapidly in most countries. For instance, the production of motor-cars in the United States was 21 per cent lower in June than in May, and again 15 per cent lower in July than in June. In the iron and steel industry, a continued decline is everywhere reported, and in the United States the industry is unable to utilise more than 30 per cent of its capacity. The production of non-ferrous metals and machines is similarly affected. In industries producing investment goods, the rate of decline seems to be about the same as in the corresponding period last year.

It has already been mentioned in Chapter V that the volume of construction continues to decline. The figures for new building permits leave no doubt that this movement will continue for some time. It is striking, however, that in some countries building activity has declined only to a very small extent if at all. This seems to be partly due to the fact that capitalists find houses a relatively safe investment.

Table VIII. — Building Activity.

	Germany		Great Britain [3]	United States [4]	
	Building permits. Number of apartments (000's omitted)		Building permits £(000,000's omitted)	Contracts awarded $ (000,000's omitted)	
				Total	Resident.
	[1]	[2]			
1930 : 1st quarter	15.9		18.8	1,097	243
2nd quarter	28.1		20.2	940 [5]	240 [5]
1931 : 1st quarter	14.9	17.3	16.1	831	233
2nd quarter		19.4	16.8	642 [5]	185 [5]

The volume of shipbuilding is also declining, as shown in Chapter V. The situation is, however, very different in different

[1] 85 larger cities.
[2] 96 larger cities.
[3] 144 towns.
[4] 37 States.
[5] April and May only.

countries. In the United States and Italy, a definite increase was registered in the second quarter of 1931.

Table IX. — Vessels commenced [1].
(Gross tons, 000's omitted.)

	World	Great Britain and Ireland	United States	Germany	Italy
1930 : 2nd quarter	580	230	58	64	13
1931 : 1st quarter	241	33	16	3	13
1931 : 2nd quarter	234	23	89	26	29

It would appear that the depression in agriculture continues unabated. Prices of cereals have dropped considerably since the spring, and were in the case of wheat in the first half of August 40 per cent below those ruling in August last year, although supply conditions seem to be very much the same as in 1930. In most European countries, it is estimated that the crop will be a little smaller than last year. In Canada, the crop is not expected to exceed 60 per cent of that obtained last year, chiefly as a result of the severe drought. In the United States, and as far as is known in Russia, the crop is expected to be roughly equal to that of last year, and in Russia big enough to allow for a considerable export surplus. The world supply will probably be somewhat smaller than in 1930.

The conditions of supply of other foodstuffs are also not very different from those of last year. A considerable reduction in most countries in the acreage under sugar-beet is offset by an increase in Russia.

Prices, Wages and Profits.

The movement in the prices of certain important commodities is shown in Chart 43.

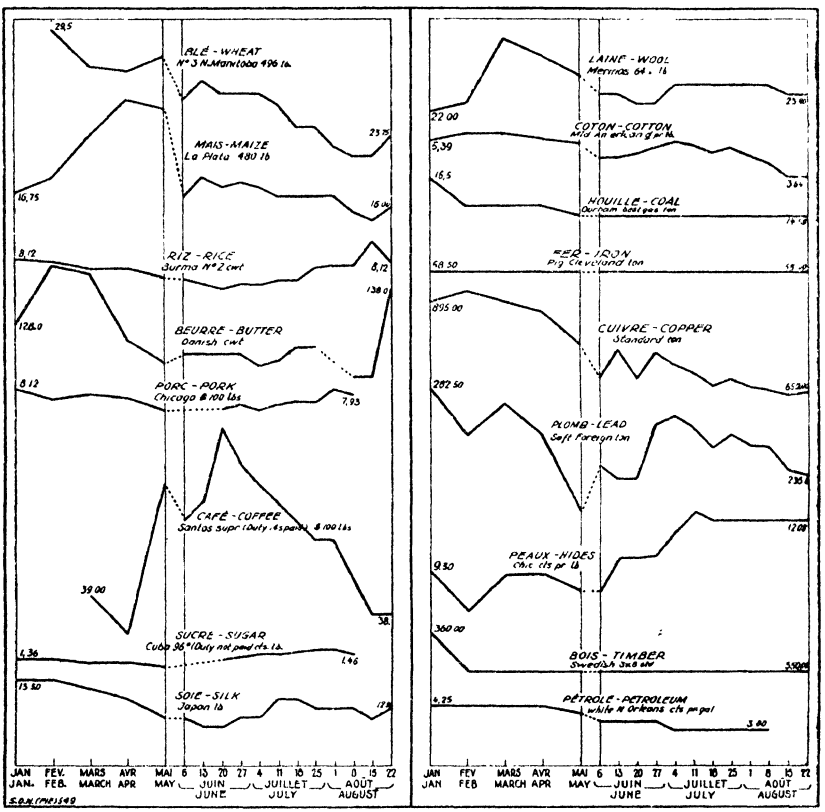
After relative stability during the spring months, prices of all important groups of commodities have on the whole tended downwards, with a marked interruption in June.

As in the case of cereals, other foodstuffs have continued to fall in price. During the summer the decline in the prices of animal

[1] Source : *Lloyds' Register of Shipping.*

Chart 43.

WHOLESALE PRICES OF CERTAIN COMMODITIES [1].



foodstuffs was especially marked, but a considerable recovery took place in August.

The rise in June was very considerable in the case of most commodities, but especially coffee, cotton, copper and lead. For wheat and some other products the decline was only arrested ; in July and August a general decline was resumed. The recent drop has been particularly pronounced in cotton, rubber, copper, lead and petroleum. Prices of foodstuffs have been relatively well maintained.

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[1] Prices in Shillings if not otherwise indicated.
Source : *Economist, Wochenberichte des Instituts für Konjunkturforschung.*

Strong domestic factors in certain countries have greatly influenced the course of the wholesale price level. Its decline has been arrested in certain cases. In some countries the price indices have actually risen : in Austria, from 107 in May to 114 in July 1931 ; in Chile, from 92 in December 1930 to 99 in May 1931 ; in Czechoslovakia, from 109 in May to 112 in June 1931. In others—for example, in India — the decline in prices has been intensified.

Shipping rates rose in May, but during the summer again began to fall. In July the index number of the *Economist* was almost 9 per cent lower than in May. Changes in wage rates have not been much more pronounced than in earlier periods of the depression. It is believed, however, that the manufacturers in many countries now consider substantial wage cuts to be necessary. While hope was still generally entertained that a recovery would come in the course of 1931, manufacturers preferred to leave wage rates unchanged in order to escape the conflicts which usually accompany considerable wage reductions ; in recent months, however, the feeling has been growing that with little prospect of a speedy and rapid recovery the present discrepancy between cost and price levels must be reduced if production is to continue.

The rise in output in the United States during the spring months of 1931 has had a favourable effect on profits, in which there has been something more than a seasonal increase during the second quarter. Here again the situation has been much more favourable in the case of industries producing consumers' goods. Comparable figures for other countries are not available.

Trade.

The figures for world trade in the second quarter are not yet known, but figures which are available for certain important countries show that the tendency is still downwards, although the rate of the decline seems to be smaller than last year. The reduction from the first quarter to the second has been very small in Germany and France, the United States and the United Kingdom, in which it reached 10-20 per cent last year. In the case of India, however, the decline is of the same magnitude as in 1930. The German trade balance has become increasingly active under the influence of the severe credit restrictions. In July the excess of exports over imports amounted to a quarter of a milliard marks. In other debtor countries also, and in some creditor countries — *e.g.*, France — the tendency of the trade balances to adapt themselves to changes in international capital movements has continued.

The figures for retail trade which have been given in Chapter V A reflect the relative stability of consumers' demand for non-durable goods and suggest that delayed purchases of certain semi-durable goods are now being effected. The increased volume of sales of certain commodities and the relatively small reduction aggregate sales is one of the most favourable and hopeful aspects of the present situation.

Public Finance.

The continued depression is of course only beginning to show its full effects on the state of public finances during the present year. The yield of taxes is everywhere declining and the difficulties in balancing the budgets are considerable. One result has been a tendency to curtail expenditure on public works and thus reduce the volume of real investment.

These financial difficulties have made themselves felt not only in some of the financially weaker States but even in certain creditor countries. Among the factors which help to reduce confidence in the financial stability of the world this is one of considerable importance.

Position of Different Countries.

During the summer of 1931, as at other times in the past two years, conditions have differed widely from one country to another. Although the relative position of the different countries does not seem to have changed very greatly in the last few months, in certain countries which have suffered most the rate of the depression has been diminished to some extent since the early spring, and in others which were favourably situated in 1930, such as France and the Scandinavian countries, conditions have grown rapidly worse.

On the whole, economic conditions seem to have altered less during the summer in non-European countries and in the U. S. S. R. than in the rest of Europe. This has probably been largely due to the fact that Europe has suffered from a financial crisis of extreme gravity.

The Financial Crisis in September 1931.

Financial conditions remained generally unstable during September. The short-term loans of Central Europe had been regulated for a few months only and the moratorium with regard to reparation payments and Inter-Allied debts extended only up to the summer of 1932.

The new crisis came sooner than was generally expected. Uncertainty regarding the position of the London money market led to continued withdrawals of foreign funds from that market. From July to September 19th, no less than 200 million pounds sterling were withdrawn. In spite of fresh foreign credits, the reserves of gold and foreign exchange were greatly reduced and on September 21st the pound sterling ceased to be convertible into gold. Some days later, the Scandinavian currencies also left the gold standard and there were signs that some other countries would soon follow.

Up to the end of August, the financial crisis seems to have had relatively little effect on production and trade. There can be no doubt, however, that by the beginning of October it was already exercising a profoundly depressing influence. It has not only reduced confidence in general, but also strengthens the tendencies towards credit restriction and deflation — *e.g.*, in countries in which efforts are being made to maintain the currency on a gold basis by means of higher discount rates, import prohibitions, etc. Further, the violent fall in the stock markets has led to the calling-in, at least to some extent, of credits which were granted with stock exchange securities as collateral.

This financial crisis was the outcome of the pressure exercised on an unstable financial organisation (see p. 221) by the long depression, by the violent price decline and the general lack of confidence due to these and political causes.

For reasons which have been described in some detail above, the economic depression was accompanied by an exceptionally severe drop in the prices of both raw materials and crude foodstuffs. As a consequence, the credit of countries exporting such commodities deteriorated. Many of these countries had adapted their economic life to a considerable net influx of foreign capital and the restriction of that influx during the period when export values were falling heavily created great difficulties.

In consequence of these and other circumstances, there was a reduction in international long-term lending, which the borrowing States made great efforts to replace by increased short-term borrowing. In fact, the countries in Central Europe which were under an obligation to pay reparations had resorted to this policy to a very large extent even before the beginning of the depression. While such short-term capital transactions relieved the immediate difficulties, they created a very vulnerable financial position. To the enormous amount of outstanding short-term obligations in 1931 must largely be attributed the severity of the crisis.

The continued depression and decline in commodity prices,

as well as the widespread feeling of political insecurity in the summer of 1931, led to a further weakening of confidence and to a withdrawal of short-term funds, as described in the beginning of this chapter. Under such conditions, it became impossible for several of the borrowing countries to fulfil their international obligations. While it might have been possible for these countries, or certain of them, to adapt with difficulty their trade balances to a curtailment of their capital imports, it was obviously impossible for them to adjust their trade rapidly enough to meet a sudden withdrawal of capital. Thus, when the crisis came and when withdrawals on a general scale began or were threatened, there remained no alternative to the prolongation of the short-term credits granted to Germany and other countries. Large amounts of the assets of the lending banks became frozen and the position of these banks *pro tanto* illiquid. In view of the fact that Great Britain had advanced a large part of the short-term credits to Germany, doubts arose as to the liquidity of British banks and of the London market in general. Foreign banks and capitalists which held large sums in London began to withdraw them, under the influence of these events and political and budgetary difficulties in Great Britain ; and, as already mentioned, this outflow of foreign funds continued until the pound was forced off the gold standard. What happened was very much the same as when the public loses confidence in a bank and starts a run. The system of the great money markets, just as the banking system within national borders, cannot function unless adequate confidence is maintained.

While the more profound cause of the financial crisis was the prolongation of the depression and the continued decline in commodity prices as a whole, the circumstances more immediately responsible were the relatively great decline in the export prices of some financially weak nations, the reduction in long-term and the shift to short-term lending. But the price movements themselves reflect to a large extent the failure of gold imports in creditor countries to lead to that credit expansion and quick adjustment of trade balances by means of which the pre-war gold standard provided a fairly automatic corrective to tendencies towards disequilibrium. (*Cf.* pages 211 and 230.) The political instability and the general lack of confidence which has resulted therefrom have, of course, also exercised a disturbing influence on international financial relations.

It falls outside the scope of this report to discuss the roads that might lead to recovery from the economic and financial crises. The special importance of the events in September, when a number of countries left the gold standard, lies in the fact that they open up possibilities for action on the part of indi-

vidual nations which may serve to mitigate the depression. So long as the currencies of all the leading countries are linked to gold, those countries all march more or less in step. A rise in wholesale commodity prices, which is the necessary concomitant of a substantial recovery, must, in such circumstance, be dependent on the measures taken in the financially stronger nations. Other countries are prevented by the state of their balance of payments and of their banking reserves from pursuing an independent policy. But once any country has abandoned the monetary standard which links it to the majority of the community of nations, it can — for a time at any rate and subject to ultimate and strict limitations — enter upon a credit policy which may do much to mitigate the immediate severity of the depression in so far as it is itself concerned and in so doing act independently of its neighbours.

APPENDIX

Table I.

NEW CAPITAL ISSUES FOR FOREIGN ACCOUNT IN THE UNITED STATES AND THE UNITED KINGDOM, 1924-1930. [1]
($000,000's.)

Emissions en Issues in	Europe	Asie et Océanie Asia and Oceania	Afrique Africa	Canada et Terre-Neuve Canada and Newfoundland	Amérique latine Latin America	Emissions non spécifiées Issues not specified	Total
Etats-Unis–U.S.A. :							
1924	527	100	—	151	191	—	969
1925	629	147	—	137	163	—	1,076
1926	484	38	—	226	377	—	1,125
1927	577	164	—	237	359	—	1,337
1928	598	137	—	185	331	—	1,251
1929	142	58	—	295	176	—	671
1930	233	62	—	281	199	[2] 130	905
Royaume-Uni–United Kingdom :							
1924	159	314	66	20	31	3	593
1925	53	216	72	10	68	5	424
1926	120	226	32	29	129	10	546
1927	105	238	136	34	126	35	674
1928	164	232	80	98	96	28	698
1929	105	139	51	74	78	12	459
1930	53	195	129	17	101	34	529

[1] Issues for refunding purposes are excluded. The American figures refer to nominal value, the British to prices of issue.
[2] " International issues".

Source : U. S. A. : *Handbook on American Underwriting of Foreign Securities (Trade Promotion Series*, No. 104). United Kingdom : *Monthly Review* of the Midland Bank Ltd.

Table II A.

NEW CAPITAL ISSUES IN THE UNITED STATES, 1920-1930. [1]

(Domestic and Foreign.)

Nominal value ; refunding excluded.

(a) *Issues for Domestic Account.* [2]

	En millions de dollars $ (000,000's)											
	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	
Obligations et bons :												Bonds and notes :
a) emprunts de l'Etat et des municipalités .	687	1.227	1.114	1.051	1.388	1.361	1.354	1.486	1.385	1.423	1.460	*(a)* Government and municipal loans.
b) obligations et bons industr. .	1.561	1.557	1.985	2.314	2.379	2.621	2.758	3.270	2.450	2.078	3.066	*(b)* industrial bonds, notes.
Actions :												Shares :
a) actions privilégiées . . .	462	71	293	335	318	594	509	874	1.149	1.517	412	*(a)* preference shares.
b) actions ordinaires . . .	540	194	277	324	511	558	578	600	1.812	4.407	1.091	*(b)* ordinary shares.
Total	3.250	3.049	3.669	4.024	4.596	5.134	5.199	6.230	6.796	9.425	6.029	Total.

(b) *Issues for Foreign Account.*
$ (000,000's).

Obligations et bons :												Bonds and notes :
a) emprunts de l'Etat et des municipalités.	239	405	510	213	703	590	542	827	586	121	548	*(a)* Government and municipal loans.
b) obligations et bons indust..	113	118	121	67	293	437	509	699	625	473	419	*(b)* industrial bonds & notes
Actions :												Shares :
a) actions privilégiées . . .	7	—	4	—	1	43	52	17	40	114	13	*(a)* preference shares.
b) actions ordinaires . . .	26	4	—	—	—	16	42	18	69	51	29	*(b)* ordinary shares.
Total	385	527	635	280	997	1.086	1.145	1.561	1.320	759	1.009	Total.

[1] Source : *Commercial and Financial Chronicle.*
[2] Including those for account of United States possessions.

Table II B.

NEW CAPITAL ISSUES FOR FOREIGN ACCOUNT IN THE UNITED STATES, 1928-1930.
GEOGRAPHICAL DISTRIBUTION [1]
Refunding excluded ; nominal value.
$ (000,000's.)

Années et trimestres / Years and quarters	Europe				Amérique du Nord North America		Amérique latine / Latin America	Asie et Océanie / Asia and Oceania	Monde / World
	Pays exportateurs de capitaux [2] Capital exporting countries [2]	Allemagne Germany	Autres Other	Total	Canada	Total			
Government guaranteed or controlled issues.									
1928 I	5,3	33,4	65,0	103,7	16,6	16,6	82,4	7,6	210,3
II	17,0	122,3	71,5	210,8	20,0	20,0	56,8	54,6	342,2
III	—	12,5	3,4	15,9	—	—	78,4	—	94,3
IV	10,0	8,1	18,5	36,6	35,4	35,4	21,1	19,9	113,0
1929 I	—	16,0	7,0	23,0	0,5	0,5	20,9	1,2	45,6
II	—	—	—	—	69,4	69,4	24,4	0,5	94,3
III	—	—	—	—	0,4	0,4	20,5	—	20,9
IV	—	3,5	—	3,5	70,9	70,9	0,8	2,3	77,5
1930 I	—	19,8	8,0	27,8	22,2	22,2	38,6	11,5	100,1
II	—	113,5	4,5	118,0	64,7	64,7	126,4	50,3	359,4
III	—	10,0	25,0	35,0	11,8	13,9	16,1	—	65,0
IV	—	—	—	—	82,4	82,4	0,6	—	83,0

Corporate issues (other than Government guaranteed or controlled).

1928	I	7,9	13,3	44,5	65,7	23,9	23,9	4,0	8,0	101,6
	II	15,0	31,5	22,7	69,2	54,8	54,8	17,5	46,0	187,5
	III	16,1	1,7	16,1	33,9	6,8	6,8	3,5	0,4	44,6
	IV	1,7	54,3	6,1	62,1	22,4	28,0	67,3	—	157,4
1929	I	42,9	5,1	9,4	57,4	52,4	56,3	52,5	52,5	218,7
	II	3,9	—	3,3	7,2	43,5	44,7	45,9	1,5	99,3
	III	13,0	—	8,7	21,7	27,4	27,4	9,3	0,4	58,8
	IV	24,2	5,0	—	29,2	25,2	25,2	1,7	—	56,1
1930	I	—	23,5	18,6	42,1	20,7	20,7	0,7	—	169,2 [3]
	II	—	—	10,0	10,0	19,0	19,0	16,6	—	70,2 [3]
	III	—	—	—	—	35,1	35,1	—	—	35,1
	IV	—	—	—	—	23,3	23,3	—	—	23,3

[1] Source : *Handbook on American Underwriting of Foreign Securities (Trade Promotion Series*, No. 104) and *American Underwriting of Foreign Securities in 1930 (Trade Information Bulletin*, No. 668).

[2] Belgium, Czechoslovakia, France, Netherlands, Sweden, Switzerland and United Kingdom.

[3] Including "international issues" not specified in the preceding columns to an amount of $105.7 million and $24.6 million respectively during the first and second quarters.

Table III.

NEW CAPITAL ISSUES FOR FOREIGN ACCOUNT IN THE UNITED KINGDOM, 1928-1930.
GEOGRAPHICAL DISTRIBUTION [1]
Calculated at price of issue. Refunding issues excluded.
£ (000,000's.)

Années et trimestres Years and quarters	Europe				Amérique du Nord North America		Amérique latine Latin America	Asie et Océanie Asia and Oceania	Afrique Africa	Divers Unenumerated	Monde World
	Pays exportateurs de capitaux [2] Capital exporting countries. [2]	Allemagne Germany	Autres Other	Total	Canada	Total					
1928 I . . .	2,1	1,2	5,7	9,0	0,1	0,9	7,7	22,6	4,4	1,4	46,0
II . .	2,1	0,8	4,7	7,6	0,6	1,9	2,8	13,7	7,6	1,8	35,4
III . .	2,1	1,1	3,6	6,8	1,3	2,0	6,9	9,7	4,8	3,2	34,2
IV . .	0,8	4,8	10,1	15,7	3,4	3,7	7,1	3,2	7,0	6,4	42,3
1929 I . . .	0,3	0,5	4,5	5,3	2,5	2,5	6,6	25,5	0,8	10,8	51,5
II . .	0,2	2,6	6,3	9,1	10,1	10,2	2,9	1,8	5,7	2,3	32,0
III . .	1,1	—	2,1	3,2	—	1,2	2,3	1,7	0,9	0,4	9,7
IV . .	—	—	0,6	0,6	—	—	5,7	2,0	4,0	6,0	18,3
1930 I . . .	0,1	—	1,7	1,8	0,8	0,8	6,4	8,7	10,5	6,4	34,6
II . .	2,0	—	2,2	4,2	0,2	0,2	10,2	19,4	7,0	0,4	41,4
III . .	—	—	2,9	2,9	0,4	0,4	0,9	2,5	0,1	0,3	7,0
IV . .	—	—	1,6	1,6	1,0	1,0	5,5	13,2	10,3	—	31,7
1931 I . . .	—	—	1,7	1,7	0,8	1,0	2,3	12,3	5,2	0,3	22,8
II . .	—	—	—	—	—	—	3,7	15,6	1,2	—	20,5

[1] Source : *The Statist.*
[2] Except Czechoslovakia and Switzerland. (The countries considered are therefore Belgium, France, Netherlands and Sweden.)

Table IV.

WORLD CONSUMPTION OF WHEAT.
(Not including quantities for sowing.)

	Consommation totale[1] Total consump.[1]		Population		Consomm. par tête Consump. per head of pop.	
	Moy. Aver. 1909-1913	Moy. Aver. 1925-1929	Moy. Aver. 1909-1913	Moy. Aver. 1925-1929	Moy. Aver. 1909-1913	Moy. Aver. 1925-1929
	En milliers de quintaux Quintals (000,000's)		En millions 000,000's		En kilogrammes Kilograms	
Monde entier[2] — World total[2]	761,1	828,4	1.159	1.321	66	63
Europe	448,8	473.5	345	365	130	130
Canada	22,8	20,5	7,2	9,6	314	214
Etats-Unis — U. S. A. .	139,0	148,6	94	119	147	125
Argentine	12,0	16,1	7,1	10,8	171	149
Australie — Australia .	7,5	9,2	4,7	6,3	160	146
Autres pays — Other countries	134,0	160,5	700	810		

[1] Source : *International Institute of Agriculture.*
[2] Not including U. S. S. R., China and Turkey (for post-war period, Palestine, Syria and Lebanon. Iraq also excluded).

Table V.

IMPORT DUTIES ON WHEAT IN CERTAIN COUNTRIES.

(Gold francs per metric quintal.)

(Import duties on wheat from countries enjoying from most-favoured-nation treatment.)

	1 - I - 1913	1 - I - 1928	I - VII - 1929	I - VII - 1930	8 - XI - 1930	1 - VII - 1931	
Europe :							Europe :
Allemagne . . .	6,79	6,18	7,92	18,50	30,85	30,85	Germany.
Autriche	6,50	2,00	2,00	2,00	2,00	6,00	Austria.
Espagne	8,00	10,00	10,00	[2]	[2]	[2]	Spain.
France.	7,00	7,11	7,11	16,24	16,24	16,24	France.
Grèce	6,00	6,00	4,30	10,50	10,50	10,50	Greece.
Italie	7,50	7,50	14,00	16,50	16,50	16,50	Italy.
Norvège	0,83	2,20	[1]	[1]	[1]	[1]	Norway.
Pologne		—	5,13	6,40 +0,64	10,17	14,56	Poland.
Suède	5,14	5,14	5,14	5,14	5,14	[1]	Sweden.
Suisse	[3]	[3]	[3]	[3]	[3]	[3]	Switzerland.
Tchécoslovaquie	6,50	4,51	4,51	4,51	4,51	8,45	Czechoslovak.

Autres continents							Other Continents
Union de l'Afrique du Sud [4]	1,47 1,26	1,47 1,26	1,47 1,26	2,73 1,98	2,73 1,98	2,73 1,98	Union of S. Africa. [4]
Japon	3,92	6,07	6,38	6,45	6,45	6,45	Japan.
Brésil	2%	2%	2%	2%	2%	2%	Brazil.
Prix :							Prices :
Manitoba N° 1 Winnipeg . .	15,52	26,80	27,30	18,37	12,38	11,81	Manitoba No.1 Winnipeg.
Winter N° 2 Chicago . . .	17,14	24,75	23,57	17,27	*14,14	*12,57	Winter No. 2 Chicago.

Source : *International Customs Journal*, Brussels.

* Nominal.

[1] Importation of wheat a State monopoly.

[2] Spain : Importation of wheat prohibited.

[3] Switzerland : Importation of wheat subject to State control.

[4] South Africa : Figures in brackets are Empire preference tariffs.

Among the more important countries in which no import duties on wheat are levied, should be mentioned the following : Belgium, Denmark, Irish Free State, the Netherlands, the United Kingdom, India and China.

Table VI. — CONSTRUCTIONS COMPLETED, 1922-1930. *

	Allemagne Germany	Angleterre et Pays de Galles England and Wales	Autriche [1] Austria [1]	Danemark [1 2] Denmark [1 2]	Finlande [1] Finland [1]	France [1] France [1]	Hongrie [1] Hungary [1]	Italie [3] Italy [3]	Pologne [1] Poland [1]	Suisse [1] Switzerland [1]	Tchécoslovaquie Czechoslovakia
	Appartements en milliers Apartments 000's	Maisons en milliers Houses 000's	Appartements en milliers Apartments 000's	Appartements en milliers Apartments 000's	Mètres cubes Cubic metres	Appartements en milliers Apartments 000's	Chambres en milliers Rooms 000's	Chambres en milliers Rooms 000's	Chambres en milliers Rooms 000's	Appartements en milliers Apartments 000's	Appartements en milliers Apartments 000's
1922	155		0,9	3,0		0,6					7,7
1923	126	82	1,2	4,8		1,7			2,1		11,1
1924	115	123	2,2	3,7		2,7	3,1	71 [4]	4,3		15,5
1925	191	166	2,4	3,6		2,6	2,2	98 [4]	6,1		13,0
1926	220	207	3,5	4,7		3,2	4,9	67 [4]	8,1	9,5	15,1
1927	306	256	2,7	4,8	1536	2,4	14,8	58 [4]	16,1	10,5	22,1
1928	330	168	4,7	4,3	2108	4,1	17,3	100 [4]	14,3	12,0	34,8
1929	339	203	7,0	5,8	1980	6,0	16,4	187	20,3	12,9	26,1
1930	330	162	.	6,3	889	5,4	12,5	149		14,5	22,8

[1] Capital only.
[2] May 1st to April 30th of the following year.
[3] Principal towns.
[4] Genoa, Milan, Rome and Turin only.

Source : Austria and Poland : *La Politique du Logement en Europe*, International Labour Office.
Czechoslovakia : *Bulletin of the National Bank*
Denmark : *Finanstidende.*
England : *London and Cambridge Economic Service.*
Finland : *Supplement to the Bank of Finland Monthly Bulletin.* No. 1, 1931.
France : *Revue d'Economie Politique*, May–June 1931.
Germany : *Wirtschaft und Statistik*, Juliheft 1931.
Italy : *Bollettino Mensile di Statistica.*
Hungary : *Memorandum of the Hungarian Institute of Economic Research.*
Switzerland : *Bulletin mensuel du Bureau Fédéral de Statistique.*

* See also the chart on building activity in Chapter V A showing changes in contracts awarded and permits in seven countries.

Table VII.

Quantum of Imports and Exports of Fifteen Countries in 1930 as Percentage of 1929.

	Importations Imports	Exportations Exports
Algérie — Algeria	99	118
Allemagne — Germany	90	96
Chine — China	89	82
Danemark — Denmark	113	112
Estonie — Estonia	89	97
Etats-Unis d'Amérique — U. S. A.	85	82
Finlande — Finland	91	89
France	108	89
Indes néerlandaises — Dutch East Indies	84	117
Italie — Italy	92	95
Lettonie — Latvia	96	106
Nouvelle-Zélande — New Zealand	89	104
Royaume-Uni — United Kingdom	97	83
Tchécoslovaquie — Czechoslovakia	92	96
Union Sud-Africaine — Union of S. Africa	81	86

Table VIII.

QUANTUM OF TRADE OF THREE COUNTRIES IN 1929 AND 1930 AS PERCENTAGE OF 1928, BY CLASSES OF COMMODITIES.

	Importations Imports		Exportations Exports	
	1929	1930	1929	1930
Royaume-Uni — United Kingdom :				
1. Denrées alimentaires, boissons et tabacs — Food, drink and tobacco	103,5	104,9	112,9	105,8
2. Matières premières et articles en majeure partie non manufacturés — Raw materials and articles mainly unmanufactured	111,4	99,8	112,9	95,2
3. Articles entièrement ou en majeure partie manufacturés — Articles, wholly or mainly manufactured .	104,4	104,5	101,3	81,1
a) Total (importations demeurées dans le pays) — Total (Retained imports)	105,9	103,4	103,5	84,6
b) Total (importations y compris les réexportations) — Total (Imports including re-exports)	105,0	102,4	103,6	84,7
Réexportations — Re-exports . .	96,7	92,7		

Table VIII (*continued*).

QUANTUM OF TRADE OF THREE COUNTRIES IN 1929 AND 1930 AS PERCENTAGE OF 1928, BY CLASSES OF COMMODITIES (*continued*).

	Importations Imports		Exportations Exports	
	1929	1930	1929	193 0
France				
1. Objets d'alimentation — Foodstuffs	110,1	115,2	95,7	98,2
2. Matières nécessaires à l'industrie — Industrial materials	109,2	112,6	96,7	90,0
3. Objets fabriqués — Manufactured products	136,2	170,5	100,6	86,3
Total	114,6	123,3	99,3	88,5
Allemagne [1] *— Germany* [1] *:*				
1. Animaux sur pied — Live animals	103,7	85,4	104,3	438,3
2. Produits alimentaires et boissons — Food and drink	93,5	85,5	124,3	105,5
3. Matières premières et articles semi-manufacturés — Raw and semi-manufactured goods	99,6	90,2	109,1	101,5
4. Articles manufacturés — Manufactured articles	91,6	77,4	111,1	106,8
Total des marchandises — Total merchandise	96,4	86,5	111,3	106,3

[1] Exports include reparations in kind.

Table IX.

VALUE OF TRADE OF FOUR COUNTRIES IN 1929 AND 1930 AS PERCENTAGE OF 1928, BY CLASSES OF COMMODITIES.

	Importations Imports		Exportations Exports	
	1929	1930	1929	1930
Etats-Unis d'Amérique — U. S. A. :				
1. Matières premières — Crude materials	106,3	68,3	88,3	64,1
2. Produits alimentaires bruts — Crude foodstuffs	98,0	72,9	91,5	60,7
3. Produits alimentaires manufacturés — Manufactured foodstuffs	104,4	72,2	103,9	77,9
4. Produits semi-manufacturés — Semi-manufactured goods	116,0	79,7	101,8	71,6
5. Produits finis — Finished manufactures	109,7	83.6	112,0	84,0
Total	107,5	74.8	102,5	75,2
Royaume-Uni — United Kingdom :				
1. Produits alimentaires, boissons et tabac — Food, drink and tobacco . .	101,2	89,7	102,6	88,9
2. Matières premières et articles en majeure partie non manufacturés — Raw materials and articles mainly unmanufactured	106,4	79,2	112,6	91,0
3. Articles entièrement ou en majeure partie manufacturés — Articles, wholly or mainly manufactured . .	104,7	97,1	99,1	76,0
a) Total (importations demeurées dans le pays) — (retained imports) . . .	103,5	89,1	100,7	78,5
b) Total (exportations y compris les réexportations) — (exports including re-exports).	102,1	87,4	100,7	78,9
Réexportations — Re-exports . . .	91,7	72,5		

Table IX *(continued)*.

VALUE OF TRADE OF FOUR COUNTRIES IN 1929 AND 1930 AS PERCENTAGE OF 1928, BY CLASSES OF COMMODITIES (*continued*).

	Importations Imports		Exportations Exports	
	1929	1930	1929	1930
France :				
1. Objets d'alimentation — Foodstuffs	105,0	94,2	97,4	94,2
2. Matières nécessaires à l'industrie — Industrial materials.	106,5	88,8	96,2	76,4
3. Objets fabriqués — Manufactured products.	125,5	141,9	98,2	84,1
Total	109,0	98,0	97,6	83,4
Allemagne[1] — *Germany*[1] *:*				
1. Animaux sur pied — Live animals.	103,4	81,8	117,0	365,4
2. Produits alimentaires et boissons — Food and drink	91,3	70,9	112,6	77,0
3. Matières premières et produits semi-manufacturés — Raw and semi-manufactured goods	99,8	76,3	106,4	89,1
4. Articles manufacturés — Manufactured articles	92,6	73,4	110,7	101,7
Total des marchandises — Total Merchandise	96,0	74,2	109,8	98,0

[1] Exports include reparations in kind.

Table X.

VALUE OF TRADE OF FORTY-FIVE COUNTRIES : 1928-1931.

Value in $ (000,000's.)

	1928		1929		1930		1er trimestre de 1st quarter of			
	1er sem. 1st half	2e sem. 2nd half	1er sem. 1st half	2e sem. 2nd half	1er sem. 1st half	2e sem. 2nd half	1928	1929	1931	
Europe, 25 pays (99 % du commerce de l'Europe).										Europe, twenty-five countries (99 % of European trade).
Importations .	9.589	9.661	9.719	9.787	8.710	8.034	4.860	4.682	3.316	Imports.
Exportations .	7.215	7.922	7.475	8.217	6.930	6.591	3.625	3.527	2.554	Exports.
Balance . .	-2.374	-1.739	-2.244	-1.570	-1.780	-1.443	-1.235	-1.155	-.762	Balance.
Amér. du Nord (Etats - Unis d'Amér. et Canada, 99 % du Commerce de l'Am. du Nord).										North America (U.S.A. and Canada, 99 % of North America trade).
Importations .	2.636	2.664	2.887	2.743	2.358	1.774	1.341	1.423	744	Imports.
Exportations .	2.888	3.492	3.156	3.185	2.478	2.192	1.454	1.689	842	Exports.
Balance . .	+ 252	+ 828	+ 269	+ 442	+ 120	+ 418	+ 113	+ 266	+ 98	Balance.

Reste du monde: 18 pays (61 % du commerce des continents ne figurant pas ci-dessus)										Rest of World : eighteen countries (61 % of trade of the continents not shown above).
Importations .	2.920	2.950	3.088	2.974	2.540	1.954	1.523	1.577	874	Imports.
Exportations .	3.392	3.162	3.399	3.055	2.584	2.051	1.844	1.823	969	Exports.
Balance . .	+ 472	+ 212	+ 311	+ 81	+ 44	+ 97	+ 321	+ 246	+ 95	Balance.
Total des 45 pays (88 % du commerce mondial).										Total for forty-five countries (88 % of world trade).
Importations .	15.145	15.275	15.694	15.504	13.608	11.762	7.724	7.682	4.934	Imports.
Exportations .	13.495	14.576	14.030	14.457	11.992	10.833	6.923	7.039	4.365	Exports.
Balance . .	— 1.650	— 699	— 1.664	— 1.047	— 1.616	— 929	— 801	— 643	— 569	Balance.

Table XI.

VALUE OF TRADE OF TWENTY-FOUR COUNTRIES IN 1928-1931 (BY GROUPS OF COUNTRIES EXPORTING MANUFACTURES, RAW MATERIALS AND VEGETABLE AND ANIMAL FOODSTUFFS).

$(000,000's)

	1928		1929		1930		1er trimestre de 1st quarter of			
	1er semestre 1st half	2e semestre 2nd half	1er semestre 1st half	2e semestre 2nd half	1er semestre 1st half	2e semestre 2nd half	1928	1929	1931	
I. Pays exportant principalement des articles manufacturés . . .										I. Countries mainly exporting manufactured goods, total :
Import. totales.	9.347	9.374	9.688	9.692	8.504	7.445	4.799	4.749	3.139	Imports.
Export. totales.	7.948	8.802	8.408	8.710	7.293	6.605	4.017	4.171	2.636	Exports.
Balance . .	—1.399	—572	—1.280	—982	—1.211	—840	—782	—578	—503	Balance.
II. Pays exportant des produits alimentaires d'origine végétale et des matières premières :										II. Countries exporting vegetable food and raw materials :
Total Europe :										Total Europe :
Importations . .	672	662	597	623	578	543	331	274	225	Imports.
Exportations . .	440	555	487	702	554	601	232	226	213	Exports.
Balance . .	—232	—107	—110	+ 79	— 24	+ 58	— 99	— 48	— 12	Balance.

Total pour les autres continents :										Total other continents
Importations . .	2.016	2.159	2.190	2.147	1.771	1.415	1.028	1.109	677	Imports.
Exportations . .	2.445	2.485	2.430	2.302	1.753	1.449	1.302	1.295	626	Exports.
Balance . .	+429	+326	+240	+155	— 18	+ 34	+274	+186	— 51	Balance.
Total pour tous les continents :										Total all continents
Importations . .	2.688	2.821	2.787	2.770	2.349	1.958	1.359	1.383	902	Imports.
Exportations . .	2.885	3.040	2.917	3.004	2.307	2.050	1.534	1.521	839	Exports.
Balance . .	+197	+219	+130	+234	— 42	+ 92	+175	+138	— 63	Balance.
III. Pays exportant des produits alimentaires d'origine animale :										III. Countries exporting animal food :
Europe :										Europe
Importations . .	359	367	363	399	360	348	183	157	152	Imports.
Exportations . .	298	340	310	356	310	317	144	138	129	Exports.
Balance . .	— 61	— 27	— 53	— 43	— 50	— 31	— 39	— 19	— 23	Balance.
Import. totales.	458	482	471	523	464	442	238	213	185	Total Imports
Export. totales.	473	426	439	441	447	385	254	253	183	Total Exports
Balance . .	+ 15	— 56	+ 18	— 82	— 17	— 57	+ 16	+ 40	— 2	Balance.

The following countries are included under :

I. Austria, Belgium, Czechoslovakia, France, Germany, Netherlands, Sweden, Switzerland, United Kingdom, United States of America.

II. Argentine, Australia, Brazil, Canada, Chile, Hungary, India, Poland, Roumania, U. S. S. R., Yugoslavia.

III. Denmark, Irish Free State and New Zealand.

Table XII.

INDEX-NUMBERS OF PRODUCTION (Quarterly averages).
1929 = 100.

	1928				1929				1930				1931		
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	
Allemagne.															*Germany.*
Biens de production (total)	94	98	99	85	92	109	104	105	87	80	74	68	62	61	Producers'goods (total).
Biens de consommation (total) .	115	109	101	101	105	101	96	103	97	97	88	85	81	95	Consumers' goods (total).
Fonte	104	93	90	64	95	103	103	99	93	75	64	57	51	48	Pig-iron.
Acier	101	94	92	67	101	106	97	94	90	74	62	59	58	58	Steel.
Machines.	96	102	109	98	84	107	110	101	85	88	88	72	60	.	Engineering.
Automobiles . . .	104	141	103	87	108	139	98	59	90	121	62	41	64	109	Motor-cars.
Fil de coton . . .	124	112	102	102	103	97	90	107	109	102	92	93	89	100	Cotton yarn.
Chaussures	102	100	84	90	94	98	98	110	100	107	88	91	94	104	Shoes.
Papier	97	100	99	100	99	102	99	101	100	96	89	90	86	91	Paper.
Briques	76	138	146	78	32	155	133	79	53	79	.	.	.	.	Bricks.
Canada.															*Canada.*
Industries (total) .	85	93	97	97	102	106	101	93	83	92	82	75	79	78	Manufactures (tot.)
Fonte	77	95	102	107	98	92	114	95	84	81	63	46	51	55	Pig-iron.
Acier	88	101	79	93	107	107	101	85	98	84	53	56	66	59	Steel.
Automobiles . . .	59	103	129	71	144	128	76	53	71	86	46	27	44	49	Motor-cars.

Coton	97	83	88	129	107	110	67	116	64	64	62	112	59	73	Cotton.
Minoterie	93	94	116	96	99	114	121	68	69	84	122	76	66	[1] 74	Flour-milling.
Papier	84	86	84	95	91	101	101	107	89	99	91	87	117	88	Newsprint.
Bâtiments	81	89	72	67	110	86	96	99	112	75	74	80	102	43	Building.
Etats-Unis.															*United States.*
Industries (total) .	92	93	96	97	99	106	104	71	88	87	77	70	71	76	Manufact. (total).
Fer et acier . . .	86	91	96	95	96	112	109	81	85	86	70	51	55	58	Iron and steel.
Automobiles . . .	76	81	96	77	113	114	103	64	73	73	49	51	49	57	Motor-cars.
Cuir et produits .	.	.	.	.	94	101	104	101	94	93	90	80	82	98	Leather and prod.
Textiles (total) . .	93	91	91	97	100	105	103	93	87	78	73	78	80	85	Textiles (total).
Coton	91	91	92	97	102	106	103	90	84	80	70	70	74	83	Cotton.
Alimentation . . .	108	98	93	103	103	101	101	99	96	99	97	95	94	99	Foodstuffs.
Papier et imprimés	94	96	94	96	98	101	101	99	96	99	97	95	94	.	Paper and printing.
France.															*France.*
Industries mécaniques (total) . .	80	88	92	93	98	100	100	101	103	103	101	95	92	[1] 91	Engineering (total).
Travail du fer . .	.	.	.	.	97	99	100	104	105	104	101	96	92	.	Iron working.
Automobiles . . .	77	100	98	92	105	108	96	91	101	103	95	90	91	[1] 88	Motor vehicles.
Métallurgie . . .	93	98	95	99	100	102	99	101	100	101	95	92	90	[1] 86	Metallurgy.
Textiles (total) . .	109	111	104	107	104	103	97	99	94	94	98	92	90	[1] 87	Textiles (total).
Coton	.	.	.	.	100	101	96	101	99	96	89	99	89	.	Cotton.
Cuir	101	108	113	116	115	108	91	87	93	97	92	88	92	[1] 93	Leather.
Papier	.	.	.	.	93	92	104	109	128	137	122	106	104	[1] 103	Paper.
Bâtiment	72	78	81	84	89	95	100	111	114	115	112	107	106	[1] 103	Building.

[1] April and May.

Table XII (*continued*).

INDEX-NUMBERS OF PRODUCTION (Quarterly averages) (*continued*).

1929 = 100.

	1928				1929				1930				1931		
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	
Pologne.															*Poland.*
Biens de production	95	101	103	106	100	105	99	97	87	79	78	74	63	63	Producers' goods.
Biens de consommation	107	103	104	109	110	97	95	98	82	81	86	88	78	81	Consumers' goods.
Fer et acier . . .	98	106	108	114	106	109	97	89	92	90	90	84	81	86	Iron and steel.
Métaux et industries mécaniques	94	101	101	101	104	108	94	93	84	76	73	69	59	58	Metals and engineering.
Textiles	116	106	109	118	117	95	92	96	72	74	82	84	74	79	Textiles.
Cuir	109	111	116	119	103	91	97	107	94	89	92	103	85 [1]	78	Leather.
Alimentation . . .	94	96	97	95	102	100	99	101	96	92	88	93	83 [1]	81	Foodstuffs.
Papier	97	98	101	106	98	100	98	102	96	96	97	99	86 [1]	86	Paper.
Bois	102	103	105	105	96	102	103	99	89	86	83	77	64	65	Timber.
Construction . . .	83	104	110	110	89	106	104	101	81	63	66	61	35	43	Building.
Royaume-Uni.															*United Kingdom.*
Fer, acier et leurs produits	93	89	85	92	98	104	100	98	100	84	70	58	60	55	Iron and steel and their products.
Industries mécaniques et constructions navales .	97	96	89	92	99	103	98	99	104	102	93	88	85	82	Engineering and ship-building.

Textiles	108	101	93	102	103	101	92	102	93	79	73	76	73	76	Textiles.
Cuirs, chaussures .	112	110	107	116	101	102	96	99	110	105	99	96	85	82	Leather and boots and shoes.
Alimentation, boisson, tabac . . .	93	93	99	99	102	100	99	101	96	92	88	93	95	95	Food, drink and tobacco.
Industries	98	94	91	98	98	102	100	102	98	93	90	88	85	83	Engineering.
Suède.															*Sweden.*
Biens de production	51	84	85	95	106	101	98	99	112	99	92	89	88	79	Producers' goods.
Biens de consommation	100	101	91	101	96	100	99	105	103	106	103	108	100	103	Consumers' goods.
Fer et acier . . .	79	78	80	93	93	99	106	101	92	85	88	83	76	79	Iron and steel.
Bois	57	123	88	106	116	100	91	103	118	120	97	96	90	87	Timber.
Papier	63	84	90	91	108	103	96	95	114	77	90	85	98	96	Paper.

[1] April and May.

Source : Canada : *Monthly Review of Business Statistics.*
France : *Statistique générale.*
Germany : *Institut für Konjunktur Forschung.*
Poland : *Institut de recherches sur le mouvement des affaires et des prix.*
Sweden : *Svensk Finanstidning.*
United Kingdom : *Board of Trade.*
United States : *Federal Reserve Board.*