UNIVERSAL
LIBRARY

OU_154232

UNIVERSAL
LIBRARY

INTERNATIONAL LABOUR OFFICE

STUDIES AND REPORTS
Series C (Employment and Unemployment) No. 21

THE SOCIAL CONSEQUENCES OF THE ECONOMIC DEPRESSION

BY

WLADIMIR WOYTINSKY

GENEVA
1936

Published in the United Kingdom
For the INTERNATIONAL LABOUR OFFICE (LEAGUE OF NATIONS)
By P. S. KING & SON, Ltd.
Orchard House, 14 Great Smith Street, Westminster, London, S.W. 1

No. 9174. — Printer : Imprimerie de l'OFFICE DE PUBLICITÉ
(Anc. Établ. J. LEBÈGUE & C^ie^, soc. coop., 16, rue Marcq, Brussels (Belgium).

PREFACE

The International Labour Office has frequently had occasion to deal, in its periodical publications and in special studies, with certain repercussions of the world depression on the situation of the workers—in other words, to consider some of the social consequences of the depression. The Director of the Office, in his *Report* to the International Labour Conference, gives year by year a summing up of the world economic situation. A full chapter of the *I.L.O. Year-Book* is devoted to a review of the principal events of the year in the economic field. So far, however, there has been no comprehensive work that covered the whole period of the depression and gave a general picture of its effects in the various countries and on the different classes of the population.

It is this study that Professor Wladimir Woytinsky has undertaken in the present volume.

He begins by considering the national income of the various countries, dealing in detail with its composition and its fluctuations in relation to the depression, and showing by a few striking examples the consequences of the depression in a number of countries selected as typical. This leads him to study the incidence of the depression on different classes of the population. Dealing in turn with the employed population, farmers, the middle classes, savings depositors, persons of independent means, and " capitalists ", he calculates their losses and studies their reactions—their attempts to escape from the grip of the depression. Then, looking beyond figures, statistical tables and diagrams—many of which he asks the reader to interpret with prudence—he considers the distressing conditions under which millions of human beings have been obliged to struggle for their daily existence during this unprecedented state of economic disorder.

The great merit of this work is that it takes to pieces before the reader's eyes the complex mechanism of our modern economic world, demonstrating the interdependence of all economic phenomena, removing many preconceived notions as to the real incidence of the losses caused by the depression and showing, among other things, that while certain social classes have been reduced to extreme poverty, others have been able to maintain, if not to increase, their means. Of particular note is Professor Woytinsky's conclusion that too much effort has been wasted in attempting to deal with isolated symptoms of the depression, and that a comprehensive view of the problem is essential if a recurrence of this cataclysm is to be prevented.

CONTENTS

Page

PREFACE III
INTRODUCTION 1

FIRST PART

The Depression and National Income

CHAPTER I : *Theory* 5

A. Composition of the National Income 5
B. Variations in the National Income 20

CHAPTER II : *The Depression in Figures* 44

A. Industrial Production 44
B. Agricultural Production 54
C. Commerce and Transport 56
D. The Movement of Prices 58
E. World Trade 65
F. Unemployment 68
G. Capital 69

CHAPTER III : *The National Income of Various Countries during the Depression* 73

A. Great Britain 73
B. Germany 83
C. France 96
D. United States of America 105
E. Japan 119
F. Bulgaria 126

SECOND PART

The Various Social Classes during the Depression

CHAPTER I : *The Employed Population* 133

A. Composition of the Employed Population and of Labour Income 133
B. Employment and Unemployment 140
C. Hours of Work (Short Time) 153
D. Nominal and Real Wages 164
E. Unemployment Relief and Other Supplementary Income 172
F. Workers' Organisations and Labour Disputes 183
G. Summary 192

CHAPTER II : *Farmers* 194

A. The Agricultural Depression in the Midst of the Industrial Depression 194
B. Agricultural Income during the Depression 199
C. Yield and Consumption of Agricultural Undertakings 209

Page

D. The Labour Problem in Agriculture 214
E. Indebtedness in Agriculture 221
F. Summary 227

CHAPTER III : *The Middle Classes* 231

A. Composition of the Middle Classes 231
B. Craftsmen and Small Industrial Entrepreneurs 236
C. Traders 244
D. Public Officials 251
E. Summary 264

CHAPTER IV : *Savings Depositors and Capitalists* 265

A. Savings Depositors 265
B. Persons of Independent Means 282
C. Entrepreneurs and Shareholders 289
D. Summary 296

CONCLUSIONS 298

APPENDICES

1. Survey of National Income in Various Countries before the Depression :
   A. Development of National Income per Head of the Population in Reichsmarks at Pre-War Purchasing Power 308
   B. National Output, Income and Consumption 309
2. Classification of Countries according to Degree of Industrialisation :
   A. Absolute Number of Members of the Occupied Population engaged in Various Branches of the National Economic System 310
   B. Percentage of the Occupied Population in Various Branches of the Economic System and Proportion of Foodstuffs exchanged with Foreign Countries 311
3. Fluctuations in Industrial Production :
   A. Industrial Production of Various Countries 312
   B. Production of Investment Goods and Consumers' Goods 312
   C. Industries particularly Affected by the Depression 313
4. Index Numbers of Agricultural Production 314
5. Variations in Goods Traffic on the Railways of Various Countries. 315
6. Variations in the Volume of Imports and Exports of Various Countries 316
7. Fluctuations in Prices :
   A. Index Numbers of Wholesale Prices and Cost of Living 317
   B. Index Numbers of Quotations of Industrial Shares 317
8. National Income of Great Britain :
   A. National Income of Great Britain in 1911 and 1924 as calculated by Mr. A. L. Bowley and Sir Josiah Stamp 318
   B. National Income of Great Britain from 1926 to 1931, as calculated by Mr. Colin Clark 319
   C. Composition of the National Income of Great Britain from 1927 to 1931, according to Mr. Colin Clark 320
   D. Consumption of Food in Great Britain 321
   E. British Imports of Foodstuffs 322

Page

9. National Income of Germany :
   A. National Income of Germany before the War 323
   B. National Income of Germany from 1925 to 1933 324

10. National Income of France :
   A. Private Income in France from 1920 to 1928..... 326
   B. Private Income in France from 1926 to 1932..... 327

11. National Income of the United States..... 328

12. Labour Income during the Depression :
   A. Development of Labour Income in the United States during the Depression 329
   B. Development of Labour Income in Germany during the Depression..... 330
   C. Distribution of Labour Income in Germany during the Depression..... 331

13. Employment and Unemployment :
   A. Index Numbers of Employment in Various Countries during the Depression 332
   B. Absolute Number of Unemployed Persons in Various Countries 333
   C. Percentage of Unemployed Persons in Various Countries... 334
   D. Index Numbers of Unemployment in Various Countries... 335
   E. Unemployment among Men and Women in Great Britain and Germany 336

14. Hours of Work (Short Time) :
   A. Hours of Work in Industrial Undertakings in France during the Depression 337
   B. Variations in Hours of Work in Great Britain..... 338
   C. Average Hours of Work in Industrial Undertakings in the United States 338

15. Wages :
   A. Movement of Average Rates of Normal Wages in Germany and Great Britain during the Depression..... 339
   B. Index Numbers of Wages in Various Countries during the Depression..... 340

16. Composition of the Income of Working Class Families..... 341

17. Trade Union Membership in Various Countries..... 342

18. Industrial Disputes in Various Countries..... 344

19. Income of Farmers during the Depression :
   A. Percentage Distribution of Gross Yield (Intended for Sale) of Agricultural Holdings in Various Countries in 1930-1931 346
   B. Receipts and Working Expenses of German Agriculture ... 347
   C. Variations in the Prices Received by and Paid by Farmers in the United States..... 348
   D. Income of Agricultural Holdings in Various Countries according to their Final Accounts..... 349
   E. Income of Agricultural Holdings in the United States..... 350

20. The Agricultural Depression :
   A. Consumption of Fertilisers in Various Countries..... 351
   B. Labour Costs in Peasant Holdings in Various Countries... 352
   C. Area Sown in Crops in Various Countries in which Agriculture was Protected during the Depression..... 353
   D. World Exports of Foodstuffs during the Depression 353

Page

21. Number of Employers, Workers on their Own Account and Other Workers :
    A. Distribution of the Gainfully-Employed Population in Great Britain according to the 1931 Census 354
    B. Distribution of the Gainfully-Employed Population in Germany according to the 1933 Census 355
22. Large and Medium Industrial Undertakings in Germany in 1926, 1929 and 1932 356
23. Index Numbers of Turnover of Retail Trade in Germany during the Depression 356
24. Public Finances of Various Countries during the Depression 357
25. Savings in Various Countries 359
26. Public Indebtedness during the Depression .
    A. Public Debt 360
    B. Interest on the Public Debt 361
27. Fluctuations in the Volume of Note Circulation in Certain Countries 362
28. Distribution of Gains and Losses of Joint Stock Companies in Germany by Branches of Economic Activity 363
29. Number of Bankruptcies in Various Countries 364

LIST OF TABLES

TABLE Page

1. Index Number of World Industrial Production from 1927 to 1934, according to the " Institut für Konjunkturforschung ", Berlin 44
2. Index Numbers of World Agricultural Production, 1925-1933, weighted by the 1930 Values 55
3. Imports and Exports of Industrial Countries during the Depression 67
4. National Income of the United Kingdom in 1911, 1924 and 1928, estimated by Mr. Colin Clark 75
5. Estimates of the National Income of Great Britain during the Depression, made by Mr. Colin Clark 76
6. Foreign Trade of Great Britain, 1929-1933 80
7. Germany's Balance of Payments during the Depression 91
8. Germanys' Foreign Trade during the Depression 91
9. Investments in Germany during the Depression 93
10. French Imports and Exports during the Depression 102
11. Consumption in France, 1928-1933 104
12. Changes in the National Income of the United States from 1913 to 1927 107
13. Distribution of National Income in the United States over Various Forms of Income, 1929-1933 113
14. Distribution of Private Incomes in Japan in 1925 and 1931 124
15. Agricultural Production in Bulgaria in 1929 and 1932 128
16. Income of Employed Population in Germany in 1928 134
17. Distribution of Employed Population in Germany in 1933 136

TABLE		Page
18.	Unemployment among Men and Women in Germany in 1933..	151
19.	Variations in Employment and Hours of Work in Certain Industries in France from February 1931 to February 1932.....	158
20.	Movement of Wages in Industrial Undertakings in the United States during the Depression.....	167
21.	Distribution of the Unemployed in Germany according to the Form of Relief granted, 1929-1932.....	175
22.	Deductions from Labour Income and Allowances to Unemployed, Sick and Disabled Workers in Germany, 1928-1933.....	175
23.	Distribution of the Members of British Trade Unions affiliated to the Trades Union Congress, 1929-1934.....	187
24.	Variations in the Prices of Wheat and Unprotected Agricultural Commodities in Various Countries, 1929-1934.....	197
25.	Population of Farms in the United States, 1926-1935.....	216
26.	Persons Employed on Farms in the United States, 1924-1936...	217
27.	Supply and Demand on the Agricultural Labour Market in the United States, 1922-1936.....	218
28.	Bankruptcies among Farmers in the United States, 1923-1934..	226
29.	Forced Sales of Agricultural Holdings in Germany, 1930-1933..	226
30.	Industrial Establishments in Germany in 1925 and 1933 (Distribution by Branches of Industry).....	237
31.	Industrial Establishments in Germany in 1925 and 1933 (Distribution by Number of Persons Employed).....	238
32.	Number of Entrepreneurs in the United States, 1929-1932....	240
33.	Index Numbers of the Turnover of Craft Supply-Co-operative Societies in Germany, 1928-1934.....	243
34.	Employment in Industry and Commerce in Great Britain and Northern Ireland, 1929-1934.....	249
35.	Number of Persons Employed in the Public Services in Various Countries	252
36.	Distribution of Savings in France at 31 December 1929.....	268
37.	Movement of Deposits in German Savings Banks, 1928-1933....	274
38.	Movement of Deposits in the Savings Banks of the Netherlands, 1927-1932	277
39.	Movement of Savings Deposits in the United States, 1924-1934.	277
40.	Movement of Savings in the United States, 1927-1934.....	279
41.	Variations in the Reserves of Undertakings in the United States, 1929-1932	291
42.	Profits and Losses of Joint Stock Companies in Germany from 1927-28 to 1933-34.....	293
43.	Failures in the United States, 1927-1934.....	295
44.	Foundation and Dissolution of Undertakings in Germany, 1927-1933	295

LIST OF DIAGRAMS

DIAGRAM		Page
I.	Working of an Isolated Economic System	6
II.	Exchanges between Two Economic Systems working on a Basis of Equivalent Exchange	7
III.	Non-Equivalent Exchanges between Two Economic Systems	8
IV.	Working of a Modern Economic System	9
V.	Index Numbers of World Agricultural and Industrial Production, 1925-1933	21
VI.	Decline of National Output as a Result of the Depression.	25
VII.	Variations in the Distribution of National Income as a Result of Changes in the Level of Prices (according to Strakosch)	34
VIII.	Index of World Industrial Production, 1927-1934	45
IX.	Industrial Production during the Depression	48
X.	Index of Industrial Production in Germany, 1860-1930.	50
XI.	World Output of Cast Iron, 1881-1913	52
XII.	Index of Wholesale Prices in Great Britain, 1850-1930	60
XIII.	Value of International Exchanges (Imports and Exports), 1881-1934	66
XIV.	National Income and Industrial Production in Great Britain during the Depression	77
XV.	Development of National Income in Germany before the War	84
XVI.	Development of National Income and Industrial Production in Germany before the War	85
XVII.	Development of National Income in Germany, 1925-1933	87
XVIII.	Private (Real) Income and Industrial Production in France before the Depression	97
XIX.	Private (Real) Income and Industrial Production in France during the Depression	99
XX.	National Income and Industrial Production in the United States, 1913-1927	108
XXI.	National Income of the United States during the Depression	111
XXII.	Development of Industrial Production in Japan, 1925-1933	121
XXIII.	National Income of Bulgaria in 1929 and 1932	127
XXIV.	Distribution of Wage and Salary Earners in Germany in 1933	136
XXV.	Development of Labour Income in Germany during the Depression	139
XXVI.	International Index Number of Unemployment, 1929-1934	143
XXVII.	Index Numbers of World Unemployment and Industrial Production, 1929-1934	144
XXVIII.	Distribution of Index Numbers of Unemployment in the Various Countries according to their Increase as compared with 1929	148

DIAGRAM		Page
XXIX.	Unemployment among Men and Women in Great Britain and Germany, 1929-1933	151
XXX.	Hours of Work and Unemployment in Industrial Undertakings in France, 1930-1934	158
XXXI.	Employment and Hours of Work in Industrial Undertakings in the United States, 1928-1934	162
XXXII.	Amount of Work done, Employment and Hours of Work in Industrial Undertakings in the United States, 1928-1934	164
XXXIII.	Index Numbers of Average Wage Rates in Germany and Great Britain, 1928-1934	167
XXXIV.	Index Numbers of Wages in Industry in the United States, 1928-1934	168
XXXV.	Fluctuations in Trade Union Membership in Great Britain and Germany, 1920-1933	186
XXXVI.	Index Numbers of Employment in the United States, 1928-1935	190
XXXVII.	Receipts and Working Expenses in German Agriculture during the Depression	201
XXXVIII.	Fluctuations in the Share of National Production and of Income Paid Out obtained by Agriculture in the United States, 1929-1933	206
XXXIX.	Receipts of Farmers and Earnings of Industrial Workers in the United States, 1929-1933	206
XL.	Movement of Agricultural Prices in the United States, 1925-1933	207
XLI.	Receipts and Working Expenses of Agriculture in the United States per 100 Acres, 1928-1932	211
XLII.	Quantity of Labour in Agriculture and Industry in the United States, 1923-1934	219
XLIII.	Employment in Industry and Agriculture in the United States, 1922-1935	220
XLIV.	Distribution of the Working Population in the United States in 1929 (Proletariat, Middle Classes and Capitalists)	234
XLV.	Index Numbers of Production and Employment in Industrial Undertakings in Germany, 1926-1932	239
XLVI.	Fluctuations in Employment in Great Britain, 1929-1934.	249
XLVII.	Fluctuations in Salaries of Public Officials in Germany during the Depression	256
XLVIII.	Distribution of Savings in France in 1929	269
XLIX.	Distribution of Accounts and Deposits in the National Savings Banks of France in 1929 and 1932	273
L.	Movement of Savings Deposits in Germany, 1928-1934	274
LI.	Fluctuations in Industrial Production and in the Increase of Savings Deposits in Italy, 1928-1934	275
LII.	Annual Fluctuations in the Gains and Losses of Joint Stock Companies in Germany from 1926-27 to 1933-34.	293

INTRODUCTION

The fundamental manifestation of the social consequences of any change in the economic situation of a country or of the world in general is to be found in the variations that take place within the different income groups. Generally speaking, an improvement in the economic situation is accompanied by an increase in individual incomes, whereas a slump involves a decrease. But this unduly simplified formula is far from exhausting the possible social effects of an economic revival or a depression. A general improvement in economic conditions does not exclude the possibility of a decline in the wealth or income of individuals, for certain social groups are sometimes destined to be the victims of economic progress. Similarly, during a depression the income of certain individuals or of certain groups may rise, for there are persons who profit from a depression just as there are war profiteers.

Leaving aside these special cases, however, the fluctuations in income as a result of an improvement or decline in economic conditions do not follow a uniform rhythm; the variations that occur do not affect the various sections of society simultaneously or to the same extent.

Moreover, the influence of economic factors on any given group of the population depends on a variety of circumstances : a rise in the price of corn is of no benefit to the farmer if it takes place after he has sold his harvest; a rise in wages does not improve the workers' position if the cost of living rises to the same extent.

The influence of an economic revival or a depression on the position of any given social group is always the resultant of a number of forces set in motion by the changes that take place in the degree of business activity. This last, in turn, is affected by social conditions.

The recent depression caused changes of unprecedented magni-

tude in economic and social conditions and it has been possible to study these changes concurrently in some three dozen countries of different structure.

History has thus afforded economists and statisticians an exceptional opportunity of studying the contradictions and weaknesses of our social system, just as an epidemic enables doctors to study the origins, symptoms and spread of a disease.

More than once doctors have been granted the satisfaction of triumphing over some deadly microbe. Is there any reason why economists should be less fortunate?

In recent years the economists have witnessed the attempts made by various Governments to overcome their difficulties either by purely economic measures or by intervention in the field of social relations. Methods which only yesterday were considered wise and effective have already been abandoned as being false and harmful.

In the light of this experience it should surely be possible for us to distinguish the sequence of economic and social phenomena more clearly than was possible before the depression. This possibility should encourage economists and statisticians to concentrate their efforts, as do doctors, biologists and bacteriologists at the conclusion of a serious epidemic. They may then be lucky enough to discover the germ of our economic troubles and find some means of localising it and preventing it from spreading.

The question at issue is really that of economic and social progress; and progress would be fictitious if it could be interrupted at any time by a depression such as that of recent years. And surely the one hope of finding effective measures of dealing with the depression lies in the development of economic science on the one hand and of economic and social policy on the other. This is a task which calls for the united efforts of the whole generation of contemporary economists who have lived through the depression. The present study is but a modest contribution to this collective task and its object will now be defined more closely.

The social manifestations of the depression which take the form of changes—relative or absolute—in the income of various social groups have a dual origin: the shrinkage of the total income of society and its redistribution. The decline in economic activity reduces the sum total of commodities and services at the

disposal of the country or of humanity in general for the satisfaction of its various needs. The question is which of these needs are to be sacrificed first, and the answer to that question is to be seen in the distribution of the material losses caused by the depression. The social aspect of the depression—the poverty of the unemployed, the return of farmers to subsistence farming, the cut-throat competition within the ranks of the middle classes, the destruction of circulating capital and the increase in the dead-weight of indebtedness—derives from this dual movement in the national income : its decline and its redistribution. These variations, although born of the depression, may at the same time become factors in intensifying it : a certain distribution of the losses may facilitate the return to a position of economic equilibrium, whereas another distribution may aggravate and prolong the depression. These are complex problems, so far comparatively unexplored, which may be studied by either of two methods : the one starts from national income as a whole, whereas the other starts from the incomes of various social groups taken separately. The two methods are not contradictory but complementary.

The present investigation will begin with a study of the composition of the *national income* and its variations as a result of the depression. This study, which will be both theoretical and empirical, will provide a basis for more detailed research into the situation of *wage-earners*, *farmers*, *the middle classes*, *persons living on their savings* and *capitalists* during the economic depression.

FIRST PART

THE DEPRESSION AND NATIONAL INCOME

CHAPTER I

THEORY

A.—Composition of the National Income

The problem of the national income is one of the most complicated in the whole of political economy. For more than half a century statisticians have been looking for the best method of assessing the national income and following its variations. During recent years the discussion of this problem, more especially by the International Statistical Institute, has been particularly fruitful in results. [1] But we are still far from having achieved international uniformity either in methods or in theory. No attempt will be made here to settle the debatable points that still remain in this field, but some definition must be given of the concepts required for the empirical studies that follow.

Let us imagine a primitive economic system (holding or parish) which is able to meet all its needs by its own products, and let us try to realise how it works.

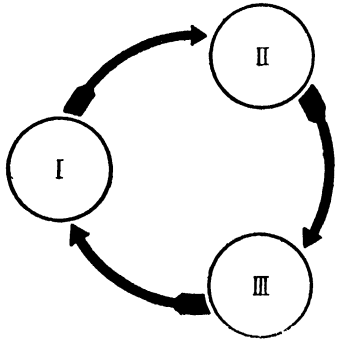
---

[1] The reader may be referred to the reports submitted to the International Statistical Institute during its sessions in Tokio (1930) and London (1934). The problem of assessing the national income in various countries was also dealt with by Sir Josiah Stamp in his address to the Centenary Meeting of the Royal Statistical Society on 17 April 1934. His report contains a carefully compiled bibliography covering all the important works on this subject published from the middle of the nineteenth century to the beginning of 1934 (*Journal of the Royal Statistical Society*, 1934, Part III, pp. 423 et seq; Bibliographical Survey, pp. 452-455; Discussion of the Report, pp. 455-466).

The first task would be to find what means of production were available in the system : so much arable land of a given quality; so many head of cattle, draught animals, machines, tools, conveyances, etc.; so much human labour. In making an inventory of the human labour a distinction would naturally have to be made between the labour of able-bodied skilled workers and that of persons of lesser capacity.

After surveying the producing power at the disposal of the economic system in question one would turn to production, including not only material goods (cereals, meat, dairy produce, skins and furs materials, tools, fuel, etc.) but also services requiring human labour (the defence of the community, justice,

DIAGRAM I.—WORKING OF AN ISOLATED ECONOMIC SYSTEM



I. Labour. II. Output (goods and services). III. Consumption.

religion, etc.). The total volume of goods and services produced annually by the economic system would then be set over against the consumption which it had to meet (food, clothing, housing, renewal of equipment, reserves for a bad harvest, etc.).

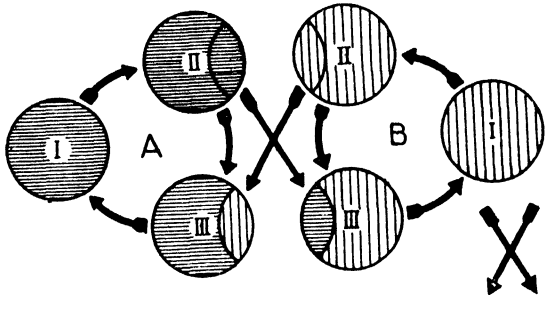
As the satisfaction of needs is a necessary condition for the continuance of production, the working of this system could be represented by a circular movement, as shown in diagram I.

Suppose now that there are two economic systems (holdings or parishes) exchanging their products. So long as there is exact equivalence between the objects exchanged this will simply mean that part of the goods and services produced in each system will be replaced by a like quantity of the products of the other system. The following diagram represents this substitution (diagram II).

In this case the consumption of each economic system remains equal to its output.[1]

As soon as any ratio is accepted as being equivalent, however, the actual exchange will inevitably be found to depart to a greater or less degree from that ratio, so that, from the point of view of the presumed equivalence of the goods exchanged, there will be a gain on the one side and a loss on the other. This disequilibrium in the exchanges will become greater if one imagines that other

DIAGRAM II.—EXCHANGES BETWEEN TWO ECONOMIC SYSTEMS WORKING ON A BASIS OF EQUIVALENT EXCHANGE



I. Labour. II Output. III. Consumption Exchanges

relations exist between the two systems in addition to that of direct exchange—for example, if system A has to transfer to system B a fraction of its produce without receiving anything in exchange (as tribute, repayment of a loan, interest on a debt, etc.). In this case one of the two systems increases its consumption at the expense of the other (diagram III, p. 8).

Thus the quantity of goods and services consumed during a given period by any economic system may differ quite appreciably from the quantity of goods and services it produces, and the difference is not always counterbalanced by an increase or decrease in reserves or in the movement of indebtedness.

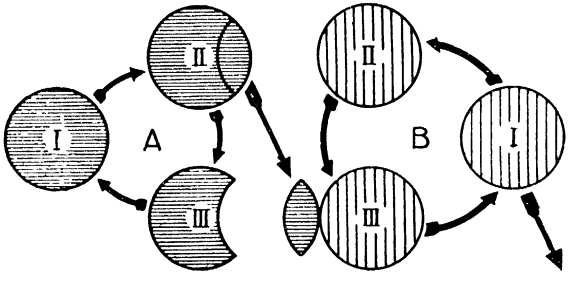
If we pass now to modern national economic systems, which are based on a very far-reaching division of labour, it will be found that, with the exception of agricultural holdings which cover a fraction of their needs out of their products, modern

[1] The advantages of the exchange in this case consist on the one hand in an increase in the variety of the goods consumed by the two systems and on the other in the possibility of concentrating the production of certain goods where they can be produced with the least expenditure and effort.

undertakings work for the market. A worker, a commercial employee, a Government official, a manufacturer and a banker are all in exactly the same position with regard to the product of their work : they cannot consume it. Their money income takes the form of a quantity of tokens that can be exchanged for the goods and services that constitute the total output of the community.

In these circumstances the economic movement presents a new aspect, but its starting point is still the same as in the primitive

DIAGRAM III.—NON-EQUIVALENT EXCHANGES BETWEEN TWO ECONOMIC SYSTEMS



I. Labour. II. Output. III. Consumption. Payments of A to B.

economic system : the total producing power utilised, the labour actually performed. This labour (including capital services) produces on the one hand the goods and services that constitute the *national output* and on the other hand the individual incomes (wages, salaries, income from capital and mixed income) which together make up the *national income.*

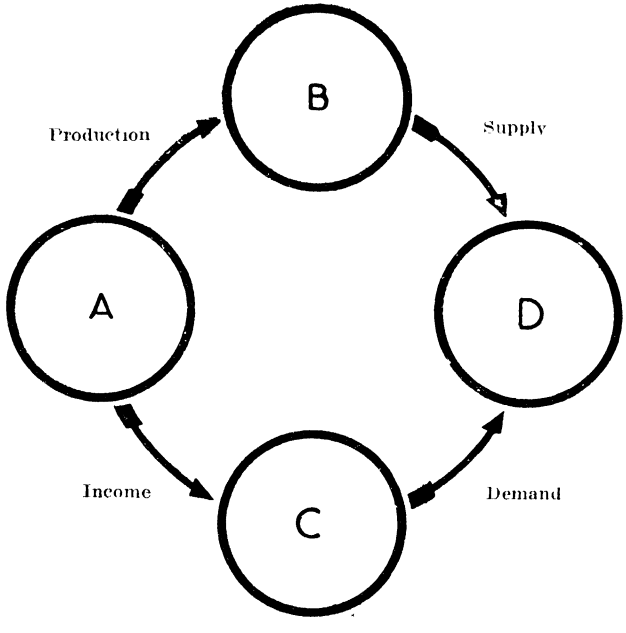
The national output plus (or minus) the balance of foreign trade (including invisible imports and exports) constitutes supply on the national market. There it meets demand, supported by the national income, and the movement is rounded off by the process of consumption (including investments and saving).

In the economic process, therefore, the national income appears simultaneously under four aspects : labour, output (goods and services), income and consumption [1] (diagram IV).

[1] This distinction is made deliberately with a view to avoiding any discussion of the rival definitions of national income, which are quite as numerous as the assessments made of that income (Cf. Sir Josiah STAMP : " Methods used in Different Countries for Estimating the National Income ". *Journal of the Royal Statistical Society,* London, 1934, Part III, p. 424).

In these circumstances the economic movement is no longer represented by a circular current as in diagram I; it takes the form rather of two converging currents both starting from the

DIAGRAM IV.—WORKING OF A MODERN ECONOMIC SYSTEM



A. *Productive forces*
Labour.
Capital services

B. Output :
Agricultural produce.
Industrial products
Services.

C *Income :*
Wages.
Mixed income.
Income from capital
Pensions, etc

D. *Consumption :*
Individual needs.
Collective needs.
Investments.
Savings

same source (labour and capital services) and meeting again on the market. In order to study this movement from every point of view it is necessary to draw up four inventories corresponding to the four circles in diagram IV. These inventories are to be found in different forms in the estimates of national income.

Most economists who deal with the question of national income agree with Professor Marshall in defining national income as " the net sum-total of things and services produced " within a certain period, for example, one year (corresponding to circle B in diagram IV), but Marshall himself in his extensive research into this problem was not able to adhere to his own definition because the necessary statistics were not available. The same

difficulty has hampered the work of many other economists who have found that it is much easier to estimate approximately the incomes of all the inhabitants of a country (circle C in the diagram) than to estimate its output.

Sir Josiah Stamp, while accepting Marshall's definition, adds three reservations.[1]

(a) He points out that the definition may have two different meanings. It may refer to the goods produced within the geographical boundaries of a country for use by persons living anywhere or it may apply to the goods and services produced anywhere for use by the inhabitants of the country in question. In the latter case, which Sir Josiah favours, it is necessary to deduct from the goods produced in the country that fraction that is sent abroad and also to add the income which the inhabitants of the country receive from abroad.

(b) Only goods and services that are habitually exchanged can be taken into account. Services that are normally supplied free of charge (for example, the household services of wives, etc.) must be left out of account.

(c) One must exclude from the national income the payment of interest on the public debt and the payment of pensions, both of which are covered by taxation and do not represent remuneration for the current services of those to whom the payments are made.

The first of these reservations is of great importance for the United Kingdom and any other country that draws a considerable amount of income from investments in colonies or foreign countries. In the case of certain other countries it may be possible to leave it out of account. The distinction in question gained a new significance, however, during the depression. As was pointed out, the income of a country that is in close touch with the world market is rarely the same as the amount of its output—and this for additional reasons not mentioned by Sir Josiah Stamp. For instance, when a country repays its foreign debts the income that remains available for consumption falls below the level of its output, whereas a country that uses foreign credits may temporarily raise its consumption above the level of

[1] *Op cit.*, pp. 424-425.

its national output. Another factor that comes into play during a depression is the difference in prices, which enables certain countries to make considerable profits at the expense of others. This is one reason for the marked differences that may be found between the different aspects of the national income.

Take, for example, a country which during a given year has an output of 100,000 million francs and a balance of imports over exports of 10,000 millions. The value of the goods at its disposal for its consumption (including investments and reserves) will be 110,000 millions, but it is found that of the 10,000 trade balance only 3,000 millions are covered by payments due to the country from abroad, the rest being counterbalanced by movements of capital. In so far as the statistics are correct, it should be possible to trace regular payments from abroad in the income of industrial companies or the income of holders of foreign securities. On the other hand loans or credits granted by foreign countries do not constitute part of income. The national output of the country should therefore be assessed at 100,000 millions, the national income at 103,000 and consumption at 110,000 millions.

These remarks by no means conflict with Sir Josiah Stamp's ideas, for he also has made a distinction between the various aspects of national income in his studies on the income of Great Britain.

The other two reservations cannot give rise to any misunderstanding.

The agricultural produce consumed by the farmer and the normal rent of dwellings occupied by their owners will be reckoned both as output and as income.[1] When estimating the national income as the total of the various individual incomes one must deduct income transferred by the State (service of the national debt, pensions, old-age pensions, unemployment benefit, etc.).

It is true that the limits of this transferred income are not always clearly defined. The nature of the retiring allowances of civil servants is a debatable question. The sums which these persons receive monthly do not correspond to any current services rendered by them and they are met out of taxation. From this

---

[1] The rent of houses occupied by farmers and in general by their owners has been excluded from the recent estimates of the national income of the United States (cf. p. 109). This is done not on account of any new conception of the national income but solely for practical reasons; the American economists hoped in this way to reduce the sources of error in their estimates.

point of view they are certainly transferred income, but these pensions may also be considered as part of the civil servants' emoluments and as arrears of remuneration for their services.[1] If this view is taken, the services rendered to the State by civil servants would have to be assessed in accordance with the amount of their salaries plus the pensions drawn by those who have retired. In that case the aggregate national output (services) would be increased by the same amount as consumption (collective needs) and the national income (there being a decrease in the amount deducted from the total income in respect of transferred income).

This view, however, is contrary to that taken by the majority of economists, and it has been thought preferable in this study to accept the general view expressed in Sir Josiah Stamp's formula.

Returning to the four inventories that were mentioned, let us first draw up the inventory of productive power. It may be divided into two sections: *(a)* human power and *(b)* natural power and technical equipment. It is only the first of these sections that is actually dealt with in studies on the national income. The natural starting point in this section is the distribution of the working population by branches of the economic system or by occupations: agriculture, forestry, fishing and hunting; mines and quarries, manufacturing industries, building; transport; commerce, credit and insurance; public services, education, the Church and the Army; liberal professions; domestic services; capitalists and persons of independent means.

This is the classification usually employed for census purposes and it has also been adopted for international demographic statistics. It therefore seems well to retain it here, as far as may be possible, for the classification on the one hand of the goods and services that constitute the national output and of income on the other hand.

The method has the advantage of bringing out the most important characteristic of the economic structure of a country; the proportion of persons engaged in agriculture and in industry, which is recognised as being the best index of the degree of industrialisation of a country. It will be shown later how very different

[1] At the meeting of the Royal Statistical Society to which reference was made above this view was put forward by Professor Verrijn Stuart in opposition to Sir Josiah Stamp's view (*Journal of the Royal Statistical Society*, 1934, Part III, p. 457).

the social consequences of the depression are in industrial and in agricultural countries. There is no difficulty in adapting the inventory of goods and services to this classification of occupations. In order to arrive at an estimate of the national output in terms of money, all that is required is to determine the pecuniary value of the goods and services produced in each branch of the economic system or by each occupational group, care being taken not to count any item twice.

Agricultural produce should be assessed at the sale price charged by the producers, after deducting seed corn, fodder, fertilisers, depreciation, valuation, etc. In the case of mines the gross value of the output will be taken. Industrial output on the other hand cannot be assessed by the gross value of the goods manufactured, because that value is far in excess of the real output of industry and may even exceed the total income of the country.[1] The net value of industrial output will be taken as being the value added by production to the materials used in the processes. The amount written off in respect of machinery and premises must be deducted, because it does not represent any new value added to that of the raw materials but must be considered as a value transferred to the manufactured product by the use of the means of production. The net value of industrial production, which rarely exceeds 40 per cent. of its gross value, contains such items as staff wages and salaries, interest on invested capital, profits, taxation on production, etc.

Transport services should be entered in the inventory of national output in terms of the actual takings of the companies after deducting the cost of fuel, the materials necessary for renewing equipment, etc. The net amount will contain wages, salaries, interest on capital, profits, mixed income, etc.

Commercial services in the widest sense of the term (trade, credit and insurance) will be represented by the increase in the price of goods in circulation—that is to say, by the difference

---

[1] The gross value of industrial production contains among other things:
(a) the value of imported materials;
(b) the value of materials produced within the country, which is already shown under agricultural or mining output;
(c) the value of semi-manufactured goods and of certain manufactured articles, which may be counted several times (materials may be shown as the output of the textile industry and then again as raw materials in the value of the goods produced by the clothing industry);
(d) the value of commercial transport and other services, which enters into the price of raw materials and semi-manufactured articles.

between the cost of manufacture plus the cost of transport and the selling price to the consumer.[1]

For public services, the liberal professions and domestic service the actual remuneration for these services will be shown.

The value of capital services in the strict sense will be shown in the various items of the inventory for national output under agricultural, mining and industrial production, commercial and transport services, etc. It would be a mistake, however, to assess the income of capitalists simply in terms of the interest paid to the banks by their debtors : this amount comprises both the earnings of capitalists and their expenses, which are sometimes very heavy (the staffs of banks and insurance companies, buildings, etc.). In order to avoid counting any of these items twice, care must be taken to include under capital services only those services not already included in other items of the inventory. The most important item here is house rent.

If the assessment is correct and nothing important has been left out, the total will represent the sum of the goods and services produced in the country irrespective of the nationality of the persons by whom they are to be used.

The method of assessing the national output that has been outlined above may be called the objective or inventory method. The method used for determining the national income in the strict sense of the term is the subjective method, which deals not with the objects that constitute the national output but with the persons whose individual incomes cumulatively constitute the national income. This method is generally based on the statistics of income tax on the one hand and the estimates of tax-free income on the other. The great difficulty is that the economist may be led astray by the false declarations of taxpayers, who do not always find it in their interest to report their entire income to the authorities. All that the economists can do is to include in their calculations an " honesty co-efficient " to counterbalance the income not reported by taxpayers. It would appear that it is the income of capitalists on a large scale that most easily evades the control of the authorities, whereas wages and

---

[1] It is not claimed that this definition is absolutely exact. A fraction of the services rendered by credit and insurance institutions is contained in the net value of agricultural, mining and industrial output, another fraction of insurance services is unconnected with the circulation of commodities and should be shown as capital services.

salaries can be assessed with considerable accuracy. On the other hand the assessment of the incomes of farmers, craftsmen and small traders (mixed income) offers difficulties that are sometimes insurmountable. A defect of this method therefore is that it exaggerates the comparative importance of wages and salaries. Moreover, the item salaries in surveys of national income nearly always contains a fraction of the income from capital, more particularly the remuneration of heads of undertakings and the managers of limited liability companies, directors' fees, etc.

The enumeration of the various types of incomes can follow the usual classification by occupations and branches of the economic system (agriculture, manufactures, etc.), which can be used for mixed income and the income from capital as well as for wages and salaries. In making the assessment, care must be taken not to count any sum twice (deducting transferred income).[1]

The statistics of countries that pay special attention to transferred income (e.g. Germany) show that during a boom period the national income exceeds the sum of individual incomes, whereas a depression, which increases the importance of income transferred through public relief measures, tends to reverse this position.[2]

The inventory method involves less risk of underestimating the national income than does the subjective method,[3] but it presupposes the existence of highly developed statistics of output, and these are not always available. Moreover, it involves too frequent recourse to approximate estimates, and this gives rise to doubts and objections.

Very satisfactory results can be obtained by combining the two methods. Sir Josiah Stamp gives a very instructive picture of the results obtained by the two methods in various countries.[4]

Country	Objective method (in millions)	Subjective method
United States, average 1910-1918	$40,200	$39,500
Great Britain, 1911	£2,000-2,250	£2,050-2,150
Great Britain, 1924	£3,750-4,200	£3,700-3,900
Switzerland	5,300 francs	5,700 francs

[1] The French statistics of national income merely assess private incomes. Elements that are counted twice as a result of the transfer of income are not eliminated.

[2] Cf. below, Appendix 9 B.

[3] But this does not mean that the objective method *always* gives a higher assessment than the subjective method (cf. the figures given below for Switzerland).

[4] *Op. cit.*, pp. 450-451.

The first step in assessing national consumption (circle D in diagram IV) is to add up the main items in the consumption of individuals, which is here taken as being synonymous with the expenditure of income, including therefore the consumption of commodities of all kinds, house rent, taxes, savings and investments. It is true that the taxes paid by taxpayers do not constitute an item in the consumption of the nation, but they go to form a fund that covers the collective requirements of the country : public administration, defence, security, etc.

A great variety of statistical sources must be used in compiling an inventory of national consumption : the sale of commodities in retail trade, standard family budgets for various sections of the population, statistics of investments, social insurance, etc. As there is a risk of counting some items twice, the assessment of national consumption cannot be a substitute for the assessment of output or of national income in the narrower sense. But it supplements these other estimates and sometimes serves to check them. This is a method that has given remarkable results in Great Britain and has also, in the author's opinion, had a certain measure of success in Germany.[1]

A distinction can be made between the different aspects of national income (output, income in the strict sense and consumption) without separate assessments by the three methods described above : it is possible to start with any one of these figures and calculate the other two in the light of the balance of payments of the country in question. This method has the great advantage of simplicity and may be recommended more especially for purposes of international comparison. In any case, the differences in the methods of direct taxation, the variations in the methods of assessing individual income and the divergences between the fundamental conceptions of how statistics of output should be compiled are so great from one country to another that the international comparison of national income totals must always be subject to very extensive reservations.

In addition to the works of Mr. Corrado Gini and Sir Josiah Stamp, comparing the national incomes of various countries,[2]

---

[1] Cf. below, pp. 85-86.

[2] Corrado GINI : *L'ammontare e la composizione della ricchezza delle nazioni*, Turin, 1914; Sir Josiah STAMP : " The Wealth and Income of the Chief Powers ", *Journal of the Royal Statistical Society*, July 1919. Cf. Wl. WOYTINSKY : *Die Welt in Zahlen*, Vol. I, Berlin, 1925, pp. 153-236.

mention must be made of the international survey compiled by the Dresdener Bank, Berlin,[1] which is the most complete of its kind (cf. Appendix 1 A). The figures calculated by the bank as representing the national income per head of the population were intended to be used primarily for international comparisons, but they cannot be accepted without some criticism. It is improbable, for example, that in 1928 the income per head of the population in France was 716 marks (at the pre-war purchasing power), while the corresponding figure for Germany was 771, for Sweden 793, for Norway 957 marks, etc.

Apart from certain inexactitudes, the general order of income levels given by the survey would seem to be in accordance with the facts. At the head of the list come young capitalist countries in the full tide of development (United States, Canada, Australia), which are, comparatively speaking, the richest countries in the world. The colonial powers of Europe (Great Britain and the Netherlands) form the second group, but it is surprising not to find France along with them. Next come the countries that are rich in capital (Switzerland, Norway, Belgium) or in industrial equipment (Germany, Denmark). Industrial countries that have no adequate market (Austria, Czechoslovakia) have a lower level of income per head, but they are nevertheless higher on the list than the agricultural countries, which form the third group. Within this group there is remarkable uniformity in one respect: the income per head is relatively high in agricultural countries with a considerable degree of industrial development; it falls very low in countries in which the predominance of agriculture is more marked, such as Lithuania, Poland and Bulgaria.

But the value of the compilation made by the Dresdener Bank, in so far as the present study is concerned, lies not so much in the figures given for the income per head as in the attempt made to establish a systematic distinction between the output, income and consumption of various countries. The calculations refer to the pre-depression period and are based on a combination of statistics of national income in the strict sense and data concerning the balance of payments. It is regrettable, however, that the method, instead of being explained to the reader, is disguised

[1] *The Economic Forces of the World*, published by the Dresdener Bank, Berlin, 1930.

by the method of presenting the results. The following sets of data are given for some thirty countries :

I. *Income from the national economic system.*

Value of the national output (goods and services).
Including :
Sales within the country.
Sales to foreign countries.
Net income from foreign interest and dividends (after deducting similar payments to foreign countries).
Net income from reparations and other war claims.

Total : National income.

II. *Expenditure of national economic system.*

Value of national consumption (goods and services).
Including :
Home produce.
Foreign produce.
Net expenditure on interest and dividends to foreign countries.
Net expenditure on reparations and war debts.

Total : National expenditure.

III. *Balance of transfers of capital.*

This is an ingenious classification, but it is open to one serious objection. It is true that income from abroad can be added to national output and payments made abroad added to other national expenditure, thus summing up the credit and debit sides of the national balance sheet. But if, in the case of creditor countries, the net income from foreign sources is added to the national income, it would obviously be logical to deduct the net payments made abroad from the national income of debtor countries. The method used by the bank therefore involves counting twice the income that is transferred from one country to another.

The appendices contain extracts, in a modified form, from the data compiled by the Dresdener Bank, corrected in the light of the above criticisms of the method employed (cf. Appendix I B).

Mention may be made here of the most striking features of the composition of the national income in the various countries, as revealed by this study.

1. The way in which the national output is divided between home consumption and sales abroad varies with the economic structure of the country. As a general rule, the proportion of

exports is higher for small countries (Netherlands, Belgium, Switzerland, Norway, Denmark, Finland, Austria, etc.) than for the large powers. But it cannot be said that the proportion of exports is appreciably higher for industrial countries than it is for agricultural ones. The following are typical figures for the proportion of exports before the depression :

Above 40 per cent, ...	Union of South Africa (59 per cent), Belgium (51 per cent.), Denmark (51 per cent.), Finland (46 per cent.).
From 31 to 40 per cent. ...	Switzerland (39 per cent.), Norway (38 per cent.), Estonia and Austria (36 per cent.), Netherlands (34 per cent.), Brazil (32 per cent.).
From 21 to 30 per cent. ...	Czechoslovakia (30 per cent.), Sweden (29 per cent.), Canada (29 per cent.), Latvia (26 per cent.), Australia and Great Britain (25 per cent.), France (24 per cent.), Italy (21 per cent.), Japan (21 per cent.).
From 11 to 20 per cent. ...	Germany (20 per cent.), Hungary (17 per cent.), Yugoslavia (16 per cent.), Lithuania (16 per cent.), Poland (14 per cent.), Bulgaria (13 per cent.), India (12 per cent.).
Below 10 per cent.	United States (7 per cent.).

2. The countries which had extensive investments abroad before the depression, from which they drew a considerable income (United States, Great Britain, France, Netherlands, Switzerland, Belgium), all showed a tendency to leave part of that income abroad in the form of new investments or loans :

Country	Net income from abroad (millions of Reichsmarks)	New loans abroad (millions of Reichsmarks)
United States of America, 1928 ...	3,190	6,074
Great Britain, 1928	7,317	2,945
France, 1928	1,249	1,288
Netherlands, 1927	786	315
Switzerland, 1927.....	344	241
Belgium, 1927	183	206
Sweden, 1928	28	37

3. On the other hand, the debtor countries were inclined to incur further indebtedness :

Country	Net payments abroad (millions of Reichsmarks)	New credits from abroad (millions of Reichsmarks)
Germany, 1928	2,673	4,378
Australia, 1926	807	830
Hungary, 1927.....	88	369
Rumania, 1927.....	343	216
Poland, 1927	184	493
Bulgaria, 1926	36	38
Japan, 1925	15	298

In other words, just before the depression the transfer of interest had ceased to operate, political payments especially being at a standstill, but the state of affairs was obscured by one fact —the steady growth of international indebtedness.

As a result of this system of postponing international payments, the consumption of the creditor countries was less than their income and sometimes even less than their national output, whereas the debtor countries consumed more than their current income and, in some cases, more than their output. It is obvious that the divergence between the income and the consumption of the various countries was bound to become of special importance during the depression, when the free movement of international credits and payments was interrupted. The creditor countries had difficulty in balancing their accounts, and this impeded the normal circulation of capital; for the debtor countries, the fact that the normal source of credit had dried up meant a decrease in imports, some of which had formerly been received without any payment in return, and consequently a decline in consumption.

In any case, the peculiar effects of the depression in countries of different economic structure are by no means restricted to the settlement of international accounts; the changes in the economic movement within each country are even more important and more varied.

B.—Variations in the National Income

The fluctuations in national income during the depression can be more easily followed if a distinction is made between the two groups of phenomena in which every change in business activity finds its expression : (1) phenomena connected with the volume of output; (2) phenomena connected with the ratio in which goods are exchanged.

The decrease in output which is the most important outward sign of the depression does not occur simultaneously or to the same extent in every branch of economic activity. The depression is a disease that seems to begin in a number of foci, from which the infection spreads gradually to other parts of the system.

In this connection a distinction must be made first of all between agriculture and industry, each of which has its own special rhythm of development and change. The experience of recent years clearly shows that the total volume of agricultural

production is very little affected by sudden changes in business activity. Farmers adapt themselves to variations in the prices of different products by changing the distribution of labour and capital over the various branches of agriculture, but this redistribution makes no appreciable difference to the total volume of agricultural production. This can easily be seen from the world index numbers of agricultural and industrial output (average for 1925-1929 = 100) (see also diagram V) :

Production	1925	1926	1927	1928	1929	1930	1931	1932	1933
Agricultural [1]	98	97	99	103	103	104	102	103	102
Industrial [2]	91	94	99	105	112	98	87	77	86

[1] Index weighted by the 1930 values.
[2] Index of the " Institut für Konjunkturforschung ", Berlin

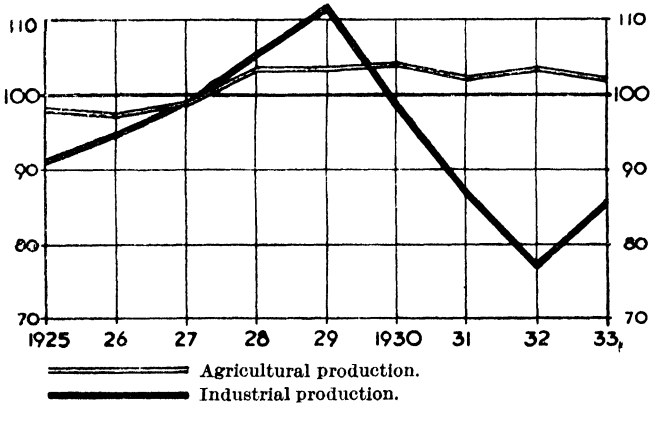
Source : LEAGUE OF NATIONS : *World Production and Prices 1925-1933.* Geneva, 1924 pp. 14 and 51.

But the two main branches of agricultural production—the production of foodstuffs and that of raw materials—are not equally insensitive to market fluctuations.

It must be remembered that foodstuffs constitute the more important branch of agricultural production. The Economic

DIAGRAM V.—INDEX NUMBERS OF WORLD AGRICULTURAL AND INDUSTRIAL PRODUCTION

(Average 1925-1929 = 100)



Intelligence Service of the League of Nations estimated the whole agricultural production of the world in 1930 at 38,700 million dollars, of which 31,700 millions represented foodstuffs and only 7,000 millions raw materials of agricultural origin. Now, it is the production of foodstuffs that offers the strongest resistance to the

influence of market fluctuations.[1] Consequently, more than 80 per cent. (in the European countries, almost 90 per cent.) of agriculture was immune from any absolute contraction during the depression. It was only the output of certain special crops that showed a tendency to adapt itself to the situation on the world market. With the exception of these crops, the contraction in the production of commodities during the depression was restricted to mines and industry.

This fact is extremely important: the shrinkage in the production of material goods, which is the fundamental phenomenon of the depression, is restricted to a single sector of the economic system. The relative importance of this sector in each country can be measured—from the social point of view—by considering the number of persons engaged in industry and the number in agriculture. In the light of this information the countries can be classified in four groups:

(1) Industrial countries with agriculture relatively weak;
(2) Industrial countries with highly developed agriculture;
(3) Agricultural countries with highly developed industry;
(4) Agricultural countries with industry relatively weak (cf. Appendix 2).

The basis of this classification—and herein lies its weakness as well as its merit—is a single factor: the numerical ratio of the section of the population engaged in agriculture (including forestry, fishing and hunting) to that engaged in industry (including mining, handicrafts and building).

The first group includes countries in which this ratio is less than 50 per cent. Leaving out of account such States as Luxemburg or the Free City of Danzig, there are only two countries that can be placed in this group: Great Britain and Belgium. Even then, the economic structure of the two countries is very different, agriculture being much more important in Belgium than in Britain, and Belgium might easily be classified in the second group.[2]

---

[1] Cf. pp. 54-55 and table 2.

[2] Every classification contains a certain number of doubtful cases, in which the question cannot be settled satisfactorily without the help of supplementary data. Belgium is one such case, since the agricultural population in that country is almost half the industrial population. In this classification, Belgium has been placed with Great Britain not merely because

The second group comprises countries in which the ratio of the agricultural to the industrial population lies between 50 and 100 per cent., or just over this latter figure in one or two cases. It includes Germany, Switzerland, the Netherlands, Austria, France, Czechoslovakia, the United States, Australia and some other countries. They all have a mixed economic system in which industry predominates to a more or less marked degree.

In the third group the ratio of the one section to the other lies more or less between 100 and 200 per cent. This is the position in Sweden, Norway, Denmark, Italy, Canada and Japan. Some of these countries would come into the second group but for the fact that their agricultural population is augmented by the numbers engaged in forestry and fishing.

The fourth group is made up of the countries in which agriculture provides occupation for more than twice as many persons as does industry.

It is not claimed that this classification defines exactly the economic structure of all these countries. But it does permit of certain conclusions being drawn. In the first place, it will be seen that neither two centuries of industrial progress nor the concentrated efforts of so many countries to hasten on this progress has been able to destroy the predominance of agriculture in the world as a whole. On the map of the world the industrial countries (including those in which the two fractions of the population are approximately equal) are scattered islands, and their total population does not exceed 340 millions, as against 1,700 millions in the agricultural countries.

Table 2 B in the Appendix shows not only the proportion of the working population of each country engaged in the different branches of the economic system but also the percentage of agricultural produce in the imports and exports. This reveals even more clearly than table 2 A the different types of economic structure.

As a general rule, in the industrial countries the percentage of foodstuffs is higher among the imports than it is among the

---

of the slight gap that separates it, from this point of view, from, say, Germany, but also for other less formal reasons : during the depression, all the industrial countries with highly developed agriculture engaged in an out-and-out protectionist policy for agriculture, whereas Belgium in this respect tended towards a free-trade policy.

exports, whereas in agricultural countries the reverse is the case.

It is obvious that the fall in production brought about by the depression will be distributed very unevenly over the different groups of countries : the industrial sector of the world economic system, which alone was directly affected by the shrinkage in production, consists essentially of a dozen countries, the rest of the world suffering mainly from the secondary consequences of the depression only.

But the influence of the depression on the industrial countries was also very uneven (cf. Appendix 3). One of the reasons for this is that the commodities produced by certain industries are peculiarly sensitive to cyclical fluctuations, whereas other industries are affected by them much later and much less intensely. The most important difference of this kind is that between consumers' goods and producers' goods.

Statistical data are reserved for the following chapter, but a few figures may be given here to show the fluctuations in the ratio of the volume of producers' goods to the volume of consumers' goods produced over a period of years (average for 1925-1929 = 100) :

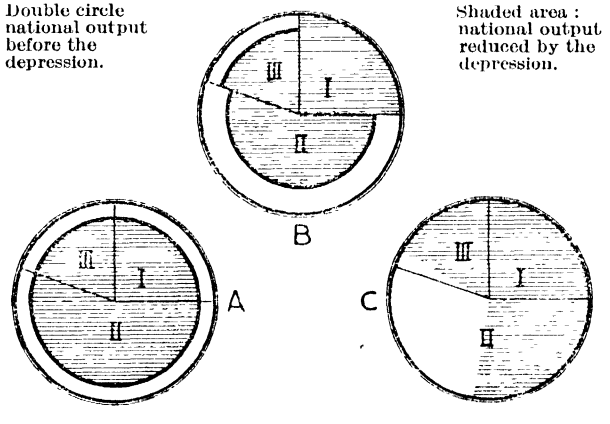
Country	Annual average 1930	1931	1932	1933
United States	89	58	34	49
Germany	90	64	47	55
Great Britain	107	89	83	89
France	118	112	85	87
Netherlands	95	67	58	68
Sweden	105	91	79	86
Poland	105	89	74	81

These index numbers cannot be entirely exact, for it is impossible to establish a precise line of demarcation between the two branches of industrial production, but they at least reveal in very striking fashion the successive phases of the depression in the countries in question : the variations in the relationship between the index of the production of producers' goods and the corresponding index for consumers' goods would seem to reflect the upward or downward trend of business.

In economic literature the decrease in production caused by a depression is sometimes represented as a shrinkage in national output, as if the cake that has to be divided up between the various groups had become smaller and each of these groups

therefore got a smaller slice. In the writer's view, this image is not quite correct: the word "shrinkage" suggests a proportionate decrease throughout the whole of national production (diagram VI A), whereas in reality the different sectors contract to a different extent (diagram VI B). If the contraction in output as a result of the depression is to be represented diagrammatically, it could, in the writer's opinion, be done more accurately by a circle, the radius of which remained unchanged but the area of which was decreased by the removal of one sector (diagram VI C). This sector representing the drop in output can

DIAGRAM VI.—DECLINE OF NATIONAL OUTPUT AS A RESULT OF THE DEPRESSION



I. Agriculture. II. Industry. III. Services.

A. False picture: Shrinkage (proportionate in all three sectors).
B. True picture: uneven decrease in each sector.
C. Adjusted diagram showing losses of sectors II and III.

be further subdivided into fractions representing the contraction in various branches of production. In diagram VI C it is shown divided between industry and services, but it would be easy to show its distribution in more detail over different branches of industry.

The other part of the national output consists of services, the most important of which, from the economic point of view, are commerce and transport. So long as the economic structure of the country does not change, the volume of commercial services must vary directly with the volume of goods in circulation. Simple as it is, this formula may give rise to misunderstanding, and it may therefore be well to take a numerical example.

Assume the agricultural output of a country before the depression to have been worth 100,000 million francs, the industrial output 150,000 millions and the value of the commercial services 40,000 millions. Suppose that the depression reduces industrial output to 100,000 millions (at pre-depression prices). What will the consequences be for the internal trade of the country? As the national output has fallen from 250,000 to 200,000 million francs, one might expect the value of commercial services to have decreased in a like proportion—that is, by 20 per cent. or 8,000 million francs. But that would be a mistake, for a part of the produce of agriculture is consumed by the farmers themselves and does not come on the market, and a further fraction is delivered directly by the producers to consumers living in rural areas; only the remainder enters into the general process of the circulation of commodities. Before the depression, the total value of the goods in circulation in the country in question was probably not more than 200,000 million francs. The depression was presumed to have reduced it by 50,000, or 25 per cent. According to the proposed formula, therefore, the loss in commercial services must also be 25 per cent.—which makes 10,000 million francs.

It must be made clear, however, that this is an estimate, based on the assumption of unchanging prices, of the services rendered by commerce and not of the income earned by commercial firms.

With regard to transport services, a distinction must be made between internal transport and international transport. The volume of internal transport can be measured by the statistics of goods traffic on the railways, given in ton-kilometres. For international transport, the statistics of shipping must be used. This method is not beyond criticism, but it should suffice to give a general picture of the harm done by the economic depression in this field.

Railway goods traffic is very sensitive to market fluctuations. In Great Britain, Belgium, Germany, Austria and Czechoslovakia the decline in the volume of railway transport was relatively greater than the fall in industrial output. The reason is that some industries which employ bulky and heavy materials (e.g., building) suffered particularly acutely from the depression. Generally speaking, railway traffic was less adversely affected in agricultural countries than in industrial ones; but there are exceptions to this rule (Poland, Hungary), and the volume

transported in agricultural countries depends partly on the harvest (cf. Appendix 4).[1]

Railway traffic is only one part of internal transport, to which must be added transport by motor, by river and in the case of some countries (such as Japan or Norway) by coastal vessels. But the various types of transport would appear to have been affected to approximately the same extent by the depression, and the index of railway traffic may therefore be considered sufficiently typical of the contraction that took place in the volume of internal transport services as a whole.

As maritime transport is linked up with the international exchange of commodities, the fluctuations in the volumes of the two follow a parallel course. But the decline in maritime transport during the depression is far from being adequately reflected by the statistics of the tonnage of vessels entering and leaving ports, unless the load carried is also specified.

Take for example Spain, most of whose foreign trade is by sea :

Year	Net tonnage of vessels with cargo or in ballast (in thousands of registered tons)		Foreign trade (in thousands of metric tons)		Load in metric tons per 100 tons burden
	entering	leaving	Imports	Exports	
1929	33,627	32,752	7,131	11,533	28
1930	33,926	33,480	5,862	9,955	23
1931	31,431	28,725	4,809	6,693	19
1932	30,522	28,464	5,133	5,810	19
1933	31,892	29,508	4,194	6,159	17

Source : Statistical Year-Book of the League of Nations, 1934-35, Geneva, 1935, pp 105 and 201

It is clear that the share of maritime transport services in the national output of a country, assessed on the basis of unchanging prices, must vary directly, not with the tonnage of the vessels, but with the weight of the goods transported (provided that no important changes take place in the composition of the latter).

Generally speaking, it may be stated that internal transport services are proportionate to the volume of goods in circulation in the country, whereas maritime transport services vary directly with the volume of international exchanges.

Statistics of national income do not always differentiate between

[1] The countries enumerated in the table in Appendix 4 are substantially the same as in Appendix 3 A; they appear here in the same order : the most highly industrialised countries at the top of the list and the purely agricultural ones at the end. The degree of industrialisation is here measured, as in Appendix 2, by a single criterion : the relative number of persons engaged in agriculture and in industry.

goods transport services and communications. The latter also decline during a depression, but they do not shrink so abruptly as do goods transport services.

International trade may naturally be expected to progress or decrease along with economic activity, as revealed by the volume of industrial production. And the index of the volume of world trade calculated by the Economic Intelligence Service of the League of Nations does in fact remain astonishingly parallel in its fluctuations to the index of world industrial output. The movements of the two indices (the average for 1925-1929 = 100) were as follows :

	1925	1926	1927	1928	1929	1930	1931	1932	1933
Volume of world trade [1]	91.5	93	101	105	110	102.5	94.5	81.5	82.5
World industrial output [2]	91	94	99	105	112	98	87	77	86

[1] League of Nations index.

[2] Index of the " Institut fur Konjunkturforschung ", Berlin. As this index is universally accepted, the Economic Section of the League of Nations uses it in its publications. The German " Statistisches Reichsamt " recently published a new index of the volume of world trade which shows the decline during the depression as being more marked than the League of Nations index would indicate (*Statistisches Jahrbuch fur das Deutsche Reich*, 1934, p. 121) :

1925	1926	1927	1928	1929	1930	1931	1932	1933
92	93	102	105	109	99	85.5	70	70

It would seem that the numbers in this series for the years 1931, 1932 and 1933 are too low as a result of inexactitudes in the method adopted by the German Statistical Office for eliminating price variations.

The agreement between the two series is most striking. The insignificant divergence during the last phase of the depression can readily be explained. Commerce in general declined more slowly than production (just as during the period before the depression it lagged 2 or 3 per cent. behind production in the upward movement). In 1932, when the depression reached its culminating point, international trade was less seriously affected than industrial production. The reason why international trade in 1933 revived more slowly than industrial production lay partly in the peculiar situation of agriculture (a better harvest in the importing than in the exporting countries) and partly in the increased tendencies of several countries towards autarky. As the economic revival of 1933 was produced by artificial means (public works, tariff protection for national industries, etc.), the recovery of international trade was bound to lag behind the improvement in production. Apart from this divergence, it will be seen that the contraction in international trade during the depression was more or less on the same scale as the contraction in industrial activity. But this formula does not apply to every

country. The relationship varies from country to country : in one case foreign trade may decrease to a greater degree than industrial production; in another, the volume of imports and exports may remain more or less unchanged although there is an appreciable fall in output.

The volume of services other than those of commerce and transport is generally but little affected by cyclical changes. Government services (public administration, education, social welfare, defence, etc.) cannot be cut down just because business is slack. It is only at an advanced stage of the depression that the State is obliged by circumstances to restrict certain of its activities. But it is forced to this step largely because the depression leads to a very great increase in its tasks in other directions, from which there is no escape.

Personal services do not decline in the same proportion as industrial output during a depression. The services of the liberal professions do not follow a uniform trend : some of them are governed by the general economic movement (e.g., barristers' services), others are scarcely affected by business trends (the clergy, the medical and teaching professions, etc.), while yet others, which are necessarily exercised under artificial conditions (the services of theatrical artistes, for instance) begin to suffer as the distress caused by the depression becomes more intense.

Summing up, it may be said that the inventory of the goods and services constituting the national output contains certain items (such as the majority of agricultural production, the services of public institutions, the leasing of houses) that are more or less unaffected by the depression. Other items fluctuate only to a slight extent—the production of agricultural raw materials, domestic service and most of the liberal professions. The contraction in output is limited in the main to industry (more especially the manufacture of producers' goods) and to commercial and transport services.

The variations so far considered have been those in the national output of goods and services. The other aspects of the national income must now be studied—the productive forces utilised, income in the strict sense and consumption.

The influence of the depression on the productive forces utilised (circle A in diagram IV, p. 9) takes the form of unemployment—both of man-power and of capital.

If the technique of production remains unchanged, a decline of

10 or 20 per cent. in national output means that 10 or 20 per cent. of the available means of production will be unemployed. If allowance is made for technical progress, which tends to increase the output of labour from year to year, the formula will have to be altered to the following form : a decrease in national output during a depression, assessed at 10 or 20 per cent. as compared with an earlier date, means that 10 or 20 per cent. of the means of production, plus an allowance for the cessation of the normal increase, which is interrupted by the depression, will be unemployed.

A similar formula would be arrived at by taking into account the natural increase in the population : if employment remains unchanged, the number of unemployed persons will increase as the working population increases.

But the unemployment here referred to does not always appear in the records of the employment exchanges. It is not merely a question of the unemployment of workers and salaried employees, but of all kinds of involuntary inactivity on the part of human labour or of technical equipment : workers on short time, industrial or commercial equipment not working to capacity, vessels sailing with half their normal cargo, etc.

In addition, therefore, to the unemployment of workers who are dismissed and of young persons leaving school, there is the invisible unemployment of those who retain their jobs but whose powers are not utilised to the full. The growth of this type of unemployment, unless counterbalanced by contrary trends, may make itself felt during the depression in the form of a decrease in the output per head of the persons in employment.

The extent of this phenomenon varies considerably in different sections of the economic system. A large factory can adapt itself to market conditions by increasing or decreasing the number of its employees at will. But banks, commercial undertakings, State railways, etc., cannot keep on engaging and dismissing staff every week. Changes in the numbers employed take place slowly in such undertakings. Again, the number of independent workers (peasants, craftsmen, small traders) cannot be reduced in accordance with market fluctuations. If there are 100,000 traders in a country, and if this number proved sufficient for handling and distributing the national output during a period of flourishing business, the number will not decrease when the depression causes a decline of 20 per cent. in the volume of goods in

circulation. It may even be expected to increase, because of the influx of persons who cannot find employment elsewhere. The result may be that 110,000 traders are engaged during the depression in a task that requires only 80,000 persons, in which case the 30,000 who are not really required for trading purposes may be classified under invisible unemployment.

But if eleven traders are struggling for their share of work that could be performed by eight, it means that all eleven of them will have to work harder than before. Objectively, three of the competitors are useless to society and are merely hampering the circulation of goods. Subjectively they are working harder than ever, and some of them may even be obliged to engage additional help.

Take for example the British statistics of employment.[1] The number of workers and salaried employees in industrial undertakings (including mines and the building industry) in Great Britain varied as follows :

July 1929	6,881,000
July 1932	5,701,000

This decrease of 1,180,000, or 17 per cent., corresponds exactly to the decline in industrial output, the official index of which also fell by 17 per cent. But the number of persons employed in commercial undertakings (including banks) at these dates was :

July 1929	1,747,000
July 1932	1,887,000

There was therefore an increase of 8 per cent. in the staffs of commercial undertakings!

Take another example. The German industrial undertakings covered by the factory inspectorate reduced their staffs from 8,926,000 in 1928 to 5,062,000 in 1932—a reduction of 43 per cent. But the number of persons employed in the commercial firms covered by the inspectorate fell only from 1,054,000 to 933,000, or by 11 per cent., during the same period.[2]

It is thus clear that the visible unemployment in certain occupations is only a slight indication of the real decline in the

---

[1] Cf. Wl. Woytinsky : *Three Sources of Unemployment*, published by the International Labour Office (Studies and Reports, Series 6, No. 20), Geneva, 1935, p. 73.

[2] *Statistisches Jahrbuch für das Deutsche Reich*, 1934, p. 113.

volume of their services. A study of the utilisation of manpower during the depression, in the light of the inventory drawn up by the methods explained above,[1] reveals the following variations :

(a) *Agriculture.*—No unemployment of human labour; no appreciable decline in output.

(b) *Industry.*—Widespread unemployment, corresponding to the contraction in output.

(c) *Transport and commerce.*—Invisible unemployment, corresponding to the decrease in services rendered. Marked discrepancy between the volume of services rendered and employment.

(d) *Services of all kinds.*—Employment falls only slightly, the volume of services rendered not being very sensitive to market fluctuations. But this means a disturbance in the balance of the economic system : in the United States, Germany and Great Britain, for example, the services that required about 10 or 12 per cent. of the employed population when business was flourishing utilised between 15 and 20 per cent. of the employed population during the depression.

It should be made clear that the disturbances in economic balance mentioned above are not phenomena unconnected with the depression, nor are they complications superimposed on the decline in production. They are rather the logical consequences of the decrease in the national output, the movement of which was described above.

The fluctuations in the distribution of income in the strict sense (circle C in diagram IV, p. 9) and of national consumption (circle D) during the depression depend not only on the volume of employment and of output, but also on the variations in the ratio in which goods are exchanged. A distinction must here be made between two—not necessarily connected—kinds of variations : (1) the fall in the general level of prices, and (2) the divergence between the price movements of various groups of commodities and services.

The influence of variations in the level of prices on the distri-

[1] Cf. pp. 12-14.

bution of the national income have been studied and clearly explained by Sir Henry Strakosch, and the following pages are based on his report to the Gold Delegation of the League of Nations.[1]

A fall in the general level of prices, Sir Henry points out, increases immediately and automatically the share of the national income which falls to the section of the community that has fixed money claims. But the greater purchasing power of the money in the hands of those social groups can only be satisfied by a corresponding increase of production or, failing that, by a curtailment of the income of the remaining sections of the community, and in particular of the " entrepreneur " and the wage-earning classes. As the wage earner resists having his money wage reduced, the whole of the burden of the fall, it is concluded, has thus at first to be borne by the " entrepreneur " class.

To aid the reader in visualising the changes in the distribution of the national income consequent on changes in the general level of prices, Sir Henry Strakosch prepared an ingenious diagram, built up from the figures of the National Income and Distribution Account of Great Britain. It is reproduced here in a slightly modified form (diagram VII*(a)*, p. 34).

The vertical line in the middle of the diagram represents the national income as distributed when the level of prices is normal (100). To the left of this line can be read off the effect which any given fall (of 10, 20, 30 or 40 per cent.), and to the right any given rise (of the same percentage), of the general level of commodity prices has on the distribution, on the supposition that the national income remains stationary, that its money value varies proportionately with the level of prices and that its distribution over the various groups of society is governed by a rigid formula corresponding to the conditions in Great Britain in 1924 as determined by the investigations of Professor Bowley and Sir Josiah Stamp :

(a) A certain sum (equal to 26.4 per cent. of the national income at the normal level of prices) is reserved for fixed money obligations (" fixed income ") such as the public debt service, interest and rent;

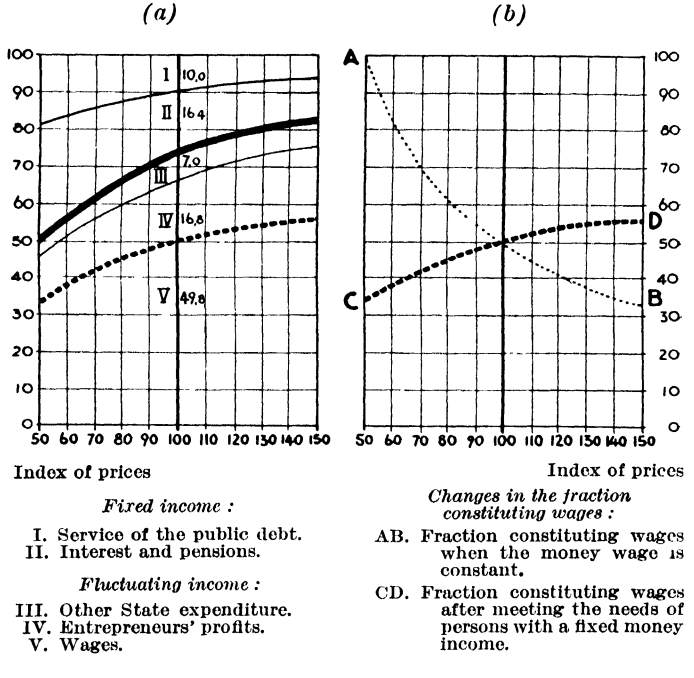
---

[1] Sir Henry STRAKOSCH : " The Economic Consequences of Changes in the Value of Gold." *Selected Documents submitted to the Gold Delegation of the Financial Committee.* League of Nations, Document C.374.M.160.1930.II. Geneva, 1930, pp. 25 et seq.

(b) The " residue " of the national income is distributed over wages and salaries, profits of enterprise (" entrepreneur ") and Government expenditure other than debt charges, the distribution being in the same proportion as at the period of normal prices. This fraction of the national income therefore falls when prices fall and increases when they rise.

It is interesting to compare the curve of real wages, marked by the dotted line [1] in diagram VII*(a)* with the course they would follow if money wages remain constant, irrespective of price

DIAGRAM VII.—VARIATIONS IN THE DISTRIBUTION OF NATIONAL INCOME AS A RESULT OF CHANGES IN THE LEVEL OF PRICES (ACCORDING TO STRAKOSCH)



Fixed income :

I. Service of the public debt.
II. Interest and pensions.

Fluctuating income :

III. Other State expenditure.
IV. Entrepreneurs' profits.
V. Wages.

Changes in the fraction constituting wages :

AB. Fraction constituting wages when the money wage is constant.
CD. Fraction constituting wages after meeting the needs of persons with a fixed money income.

variations (the line A-B in the diagram VII*(b)*). According to Sir Henry Strakosch, the divergence between the two curves gives some idea of the social friction that must necessarily be produced by any violent change in the general level of prices.

Sir Henry's main idea therefore is that a fall in the general level of prices tends to increase fixed incomes at the expense of variable incomes. This theory is confirmed by the statistics of national

[1] The line C-D in diagram VII*(b)*.

income in various countries during the depression. But the conditions to which these empirical observations apply differ in certain fundamental points from the example taken by Sir Henry Strakosch. He tried, for instance, to isolate the influence of the fall in prices on the distribution of the national income by assuming that this phenomenon occurred without any change in the actual volume of output and of the national income. In reality, the volume of national production falls during the depression at the same time as prices fall, so that its money value decreases doubly. Consequently fixed incomes must also decline, suffering as they do in various directions : the interest on capital fails to come in because of the bankruptcy of debtors, dwelling houses remain untenanted and bring in no rent, etc. If the depression continues with growing intensity, more general measures may aggravate this state of affairs : moratoria, conversion of public loans, cuts in the salaries and pensions of public officials and the revision of all kinds of acquired rights.

Nevertheless the trend to which Sir Henry Strakosch draws attention does not disappear. Although the systematic study of the facts is reserved for later, the development of the national income of Germany may be referred to here by way of example. It was :

Year	Millions of marks	Millions of marks at the purchasing power of 1928
1929	76,100	74,900
1930	70,200	72,300
1931	57,100	64,100
1932	45,300	56,800
1933	46,400	59,400

In the German national income three items may be considered as " fixed income " (" fixed money obligations ", as Sir Henry Strakosch calls them) : the income on capital in the strict sense, house rent and pensions (excluding social pensions). These three items together amounted to the following figures :

Year	Millions of marks	Millions of marks at the purchasing power of 1928
1929	6,200	6,200
1930	6,400	6,600
1931	6,100	6,800
1932	4,900	6,200
1933	4,900	6,300

Thus fixed incomes, which represented only 8 per cent. of the German national income in 1929, amounted to 11 per cent. of it in 1933.

This phenomenon is specially worthy of attention because the difference between the various groups of incomes is not restricted to this juxtaposition of " fixed " and " variable " incomes. All incomes are more or less variable, but they differ in their degree of elasticity—that is, in their resistance to the factors that make up the depression. As will be seen later, workers' wages—contrary to the general opinion, which Sir Henry Strakosch shares—are among the most elastic forms of income and very soon give way under pressure of the depression.

If the differences in the flexibility of various income groups be left out of account a general rise or fall in prices to an equal extent would mean that the volume of goods exchanged would remain invariable, and that the national output would merely be redistributed according to the degree of elasticity of the various income groups. In practice either debtors would be relieved of part of their indebtedness to the detriment of their creditors (if prices rose) or creditors would find their assets increased to the detriment of their debtors (if prices fell). But it is unlikely that all prices would vary proportionately during a depression of several years' duration which causes the different sections of production to contract to varying degrees and, more especially, causes industrial production and agricultural production to develop along quite different lines.

The agricultural sector of the world economic system serves as a market for industrial output just as the industrial sector is a market for agriculture. Economic balance depends on a regular exchange between the two sectors.

It certainly cannot be asserted that the ratio of the volume of agricultural produce to the volume of manufactured goods exchanged for each other before the depression in 1929 was just or reasonable. It did, however, maintain a position of unstable equilibrium between the production and sale of products. But how could the ratio of these volumes remain the same during the depression when industrial output fell by more than 30 per cent. and agriculture continued to place the same quantity of produce on the market as formerly?

The terms of the problem must be made quite clear. Before the depression agricultural production throughout the world amounted in round figures to 40,000 million dollars, of which 32,000 represented foodstuffs and 8,000 raw materials. A fraction of the foodstuffs went to satisfy the needs of the farmers and their

families, whereas the remainder—particularly the better class produce—was intended for the market as an exchange for the manufactured goods or services provided by the urban population. The value of the agricultural produce placed on the world market in exchange for industrial goods before the depression was about 20,000 million dollars a year (producers' selling price). The net value of industrial production in 1929 was 77,000 million dollars (at 1928 prices). A fraction of this amount was consumed by the industrial sector itself or exchanged for services, while another fraction, equal to the 20,000 millions mentioned above, was destined to cover the supplies purchased by the towns from the country.

But industrial output fell by 32 per cent. : its net value expressed in 1928 prices was only 53,000 million dollars in 1932. If the exchanges between the two sectors had remained invariable the country would have obtained goods of the same value for its produce as in 1929, namely, manufactured articles to a value of 20,000 million dollars (always at 1928 prices). In that case the towns would have retained for their own requirements industrial products valued at 33,000 millions (as against 57,000 millions before the depression). In other words, the towns would have had to reduce their consumption of manufactured goods by 42 per cent. while the country districts would have kept their former standard of living. It is obvious that such a revolution would presuppose a sudden and far-reaching change in the relative strength of the rural and urban sections of the country, markedly in the former's favour. But how could such a change take place at a time when the agricultural section was the more severely affected by over-production?

If all the conditions that go to determine the distribution of the national output had remained unchanged one might expect the decline in production to be distributed more or less evenly over the various sections of the economic system. In 1929 industry delivered to agriculture 26 per cent. of its production, which amounted to 20,000 million dollars net; in 1932 it would have delivered a net value of 14,000 millions (at 1928 prices). It would follow that agricultural produce representing a value of 20,000 million dollars would then have been exchanged for industrial products worth only 14,000 millions, which would mean a fall of 30 per cent. in agricultural prices as compared with industrial prices. An even greater drop might be expected in view of the fact that

the ratio of supply and demand had changed so greatly to the disadvantage of agriculture and the fact that industry could not possibly consume all the raw materials offered to it by agriculture.

It is unnecessary to emphasise the approximate character of the above calculations; in real life there are no strictly defined economic sectors, no direct exchange between them, and no general level of agricultural or industrial prices. Moreover, the conditions of the problem have been deliberately simplified. This reasoning, however, was merely a rough example intended to illustrate the general trend of price movements during the depression, and it should serve to show that the unequal extent to which production falls necessarily leads to a divergence between agricultural prices and industrial prices. That is why the industrial depression and the agricultural depression of recent years are not two concomitant phenomena, the one superimposed on the other. The sudden aggravation in the situation of the agricultural population since 1930 is rather a consequence—and an inevitable consequence—of the contraction in industrial production. It is true that the difficulties existing in agriculture are due to certain additional causes which are not the same in the United States as they are in France or in the Danube Basin or in Brazil. But even if none of these special factors had existed the divergence between prices would still have occurred, and the period from 1930 to 1934 would still have been marked by an acute agricultural depression which complicated and supplemented the industrial depression.

It may also be pointed out that, quite apart from the divergence between industrial and agricultural prices, the general fall in prices, which is also produced by the depression, is particularly serious for farmers because their expenditure (taxes, interest on mortgages, etc.) is less elastic than their income.[1]

The transformation of a slump in industrial production into a slump in agricultural prices is a typical example of the interdependence of economic and social phenomena.

The fall in the purchasing power of the urban population due to unemployment, lower wages, etc., prevents agricultural produce from being sold in the towns, and almost inevitably produces a fall in the prices of these products. The quantity of necessary commodities produced by home agriculture that is consumed within any country diminishes by very little, but as wages fall

[1] See Second Part, Chapter II.

lower and lower and unemployment increases the prices of foodstuffs also continue to fall, remaining constantly below industrial prices.

The above considerations apply to the relationship between two sections of the economic system of any country, and also to the relationship between agricultural countries and industrial countries. In the latter case a fraction of the losses caused by the depression in an industrial country has to be borne by the agricultural countries. The persistence with which agricultural countries continue to produce the same quantity of goods may mean much greater losses for them than they would suffer if they were able to adapt their output to the new conditions of the world market.

The material losses of a country that does not reduce its output are bound to compel it to reduce its imports : in exchange for the same quantity of its produce an agricultural country receives less in the way of goods and services during a depression. An industrial country, on the other hand, by transferring a fraction of its losses to foreign countries ought to gain more than formerly on its exchanges—in other words, the ratio of its imports to its exports calculated at stable prices should rise.

The following chapter contains statistics of international trade that confirm this theoretical argument (cf. Appendix 5) : in the industrial countries the volume of exports fell to a greater extent than the volume of imports during the depression although the balance of payments of these countries shows that the ratio of exports to imports increased.[1] In the agricultural countries, on the other hand, the decrease in imports was more marked than that in exports, but nevertheless their balance of payments was not thereby improved. The foreign trade of Great Britain and Yugoslavia may be taken as typical examples of this development.

In 1932 the value of Great Britain's exports was 1,279 million gold dollars and of its imports 2,276 millions as against 3,549 millions and 5,407 millions respectively in 1929. The excess of imports was therefore 1,858 millions in 1929 and only 997 millions in 1932. Even making allowance for the increase in the purchasing power of gold it will be seen that there was a considerable improvement in the trade balance of Great Britain. But if the 1929 prices are taken as a basis the surplus imports of Britain in

[1] Cf. pp. 67-68 and table 3.

1932 amounted to 2,542 million gold dollars. The difference of almost 1,500 millions was net gain for Great Britain.

What occurred in Yugoslavia was exactly the opposite. In 1932 that country exported goods to a value of 50 million gold dollars (as against 139 millions in 1929) and imported goods to a value of 46 millions (as against 134 millions). Its balance of trade in 1932 thus showed an excess of exports of four million dollars as compared with five millions in 1929. If the 1929 prices are taken as a basis, however, the excess of exports in 1932 should have been 44 million dollars. Of that amount 40 millions simply disappeared, representing Yugoslavia's fraction of the sacrifice involved for the agricultural countries by the divergence between industrial and agricultural prices.

There is still another aspect of this phenomenon. The decline in the exports of a country, even if it does not affect its commercial balance, means a contraction in the country's foreign markets and therefore a decrease in the volume of employment in undertakings working for export. An industrial country exports less in exchange for the same quantity of goods imported for national consumption—that represents so much gain. But as it thereby loses certain markets abroad the industrial country is obliged to cut down production and distribute to its unemployed workers' allowances which come out of the national income.

There is therefore a close connection between the distress that exists in each of the two main branches of the world economic system. The effects of the depression would seem to be very different and even entirely contrary, the losses of one section constituting the gains of the other. But in reality the phenomenon is one and the same : the economic system is out of balance and therefore cannot work smoothly.

It has been shown theoretically that the divergence between agricultural prices and industrial prices is due to the unequal degrees to which production contracted in these two fields. But there is another line of argument : just as the difference between the decline in production in the two sectors of the economic system produces a divergence in prices, so this divergence is bound to lead to differences in output. The two phenomena are so closely connected with each other that each may be both the cause and the consequence of the other one.

The variations in the output of the different branches of the economic system and in the incomes of different countries and

different social groups are also reflected both in the volume and in the composition of consumption.

The items that make up national consumption react with varying degrees of sensitiveness to the changes that occur in business activity. Investments are the first item to decline. Their decrease to some extent counterbalances the reduction in national output, so that the remainder, representing direct consumption, may remain unchanged even when there is a considerable drop in the total national income.

The movement in the stocks of manufactured articles (which increase during a boom and decrease during a depression) has a similar effect : the sale of accumulated stocks at reduced prices may for a time help to balance the reduction in the production of consumers' goods.[1] It may therefore happen that the only influence of the depression on consumption is a decline in investments, direct consumption remaining unaffected.

An attempt will now be made to assess the fluctuations in income, output and consumption in different countries during the depression on the basis of the plan used above for studying the structure of the national income.

Take two countries, one of which is industrial and the other agricultural, each having the same amount of labour power—say an occupied population of 10 millions each. The difference in the economic structure of the country will be revealed by the distribution of human labour, of output and of income over the three sections of the system : industry, agriculture and services. Suppose that before the depression the occupied population (all in employment) of the two countries was distributed as follows :

	Occupied population in employment	
	Industrial country	Agricultural country
Agriculture, fishing, hunting, etc...	2,500,000	7,500,000
Industry	5,000,000	1,500,000
Services of all kinds.....	2,500,000	1,000,000
Total...	10,000,000	10,000,000

Suppose further that the annual output of each employed person in both countries is equal to a thousand of the national

[1] The accumulation of stocks of raw materials, which is characteristic of a period of depression, can be explained by the fact that the manufacturing industries adapt themselves more quickly to new market conditions than does the production of raw materials, particularly those of agricultural origin.

currency units, so that the national income in both cases can be expressed by the same figure : 10,000 millions.

Assume next that an extensive depression causes production and employment in industry in both countries to decrease by 30 per cent., while agricultural production remains constant, the volume of services declines by 20 per cent. and employment in the occupations concerned falls by 10 per cent. In that case the movement of employment in the two countries would be as follows :

	Occupied population			
	Industrial country		Agricultural country	
	In employment	Unemployed	In employment	Unemployed
Agriculture	2,500,000	—	7,500,000	—
Industry	3,500,000	1,500,000	1,050,000	450,000
Services	2,250,000	250,000	900,000	100,000
Total ..	8,250,000	1,750,000	9,450,000	550,000

The national output in the industrial country would have decreased by 1,500 million currency units in industry and 500 million in services of all kinds, whereas in the agricultural country the decrease would be 450 millions in industry and 200 millions in services.

The percentage of unemployed would be 17.5 in the industrial country and 5.5 in the agricultural country, and the national output would have decreased by 20 per cent. in the first case and 6.5 per cent. in the second.

In both countries therefore the fall in output would exceed the decline in the volume of employment; both would be greater in the industrial country than in the agricultural one. But the divergence in prices would enable the industrial country to make a profit on its international exchanges whereas the agricultural country would suffer further losses from the same cause. In order to measure these gains and losses let it be assumed that in both countries the proportion of exports was the same, say 25 per cent. of the national output (2,500 million currency units). In this case a divergence of 30 per cent. in prices would mean a real gain of 750 millions for the industrial country (prices remaining unchanged), whereas the agricultural country would suffer a supplementary loss of 750 millions.[1]

[1] It is assumed that the volume of imports of the industrial country and the volume of exports of the agricultural country remain the same. The gains of the industrial country are then measured by the decrease in its exports and the losses of the agricultural country are shown by the decrease in its imports. The currency units are not the same in the two cases.

The amount of national income available for consumption would then decline in the first case by 2,000 — 750 = 1,250 millions or 12.5 per cent., and in the second case by 650 + 750 = 1,400 millions or 14 per cent. How would these losses be distributed over investments and direct consumption?

It is obvious that the fraction reserved for investments in the industrial country is higher than in the agricultural one. For the sake of having a numerical example it may be put at 24 per cent. in the first case and 12 per cent. in the second.

Let us assume that in both countries the volume of investments decreased by 50 per cent. on account of the depression. The national income would then be distributed in the two countries as follows (in millions of the national currency unit):

	Industrial country		Agricultural country	
	Before the depression	During the depression	Before the depression	During the depression
Income available for consumption	10,000	8,750	10,000	8,600
Investments	2,400	1,200	1,200	600
Direct consumption .	7,600	7,550	8,800	8,000

Direct consumption in the industrial country would thus fall from 7,600 to 7,550 millions (a negligible decrease), and in the agricultural country from 8,800 to 8,000 millions or by 9 per cent.

One reservation must however be made. The economic system is not a piece of mechanism composed of a limited number of invariable parts all the movements of which can be foreseen and calculated in advance. It is instead an organism which may react to the same events in quite a different manner according to circumstances.

The theoretical considerations contained in the present chapter, in so far as they are not confirmed by observation, are merely hypotheses. Their sole purpose is to facilitate the systematic study of the facts which will be undertaken in the following pages. A general survey will first be given of the recent depression as reflected in figures, followed by a more detailed study of the changes in national income to which it gave rise in the different countries.

CHAPTER II

THE DEPRESSION IN FIGURES

A.—Industrial Production

The most striking evidence of the last depression is undoubtedly the violent contraction of industrial production. (See table 1 and diagram VIII.)

TABLE 1.—INDEX NUMBER OF WORLD INDUSTRIAL PRODUCTION, ACCORDING TO THE "INSTITUT FÜR KONJUNKTURFORSCHUNG", BERLIN[1]

(Average 1928 = 100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1927	93	93	95	94	96	95	95	95	94	94	93	94
1928	97	99	99	98	99	99	99	99	101	103	102	104
1929	106	105	106	108	109	110	109	108	108	108	104	100
1930	101	101	99	98	97	94	91	89	89	89	88	86
1931	84	85	86	87	86	85	84	82	81	79	79	78
1932	77	76	75	72	71	70	68	69	72	74	75	75
1933	75	74	74	76	82	90	92	89	88	87	84	86
1934	89	91	94	95	94	93	88	87	85	87	88	90

[1] *Die Industriewirtschaft:* "Entwicklungstendenzen der deutschen und internationalen Industrieproduktion, 1860 bis 1932", supplement 31 of the *Vierteljahrshefte zur Konjunkturforschung*, Berlin, 1933, p. 68; *Wochenbericht des Instituts für Konjunkturforschung*, 11 July 1934, pp. 129 and 132. Seasonal fluctuations are eliminated.

The economic revival that had begun in 1923-1924 seems to have reached its climax by the middle of 1929. From that date onwards to the summer of 1932, world industrial production declined from month to month. In July 1932 it reached its lowest point: 32 per cent. below the average for 1928, 38 per cent. below production in June 1929. In the autumn of 1932 a slight revival set in, which gradually gained in strength, and in spite of

the fluctuations inherent in the still unsound conditions, this rise became more and more evident during 1934.

Eliminating the monthly fluctuations, the index number of world industrial production varied as follows (1928 = 100):

1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
87	90	94	100	107	93	82	73	82	90

The difference between the index numbers for the years of depression and that for 1929 indicates the decline suffered by

DIAGRAM VIII.—INDEX OF WORLD INDUSTRIAL PRODUCTION
(Average 1928 = 100)



industrial production owing to the depression (as a percentage of 1928 production, which serves as the basis of comparison):

1930	1931	1932	1933	1934
14	25	34	25	17

For the five years 1930 to 1934 the total is thus 115, and therefore exceeds the aggregate value of world industrial production in 1928 or 1929.

Yet this estimate, quite apart from the inaccuracies inevitable in such summary calculations, does not reveal to the full the contraction of industrial production during the depression. It suffers from two errors in particular:

1. Production during the depression is compared with production in 1929, which is considered as normal, although in that year too, and especially during the second half, it was affected by

the depression. Otherwise it would have been higher and its index number would probably have been 109 or even 110.

2. If the depression had not set in in the autumn of 1929, industrial production would have continued to rise. There would probably have been some slowing down compared with the abrupt increase from 1925 to 1929, but it may still be assumed that the index number would have risen by at least one to two points each year. It would thus have been from 110 to 112 in 1930, from 111 to 114 in 1931, from 112 to 116 in 1932, from 113 to 118 in 1933, and from 114 to 120 in 1934. It would therefore be correct to compare the actual production of these years with the value that might theoretically have been expected, and not with the actual index number for 1929. The decline due to the depression would in that case be (expressed as a percentage of 1928 production):

1929	1930	1931	1932	1933	1934
2 to 3	17 to 19	29 to 32	39 to 43	31 to 36	24 to 30

The total decline for the five years would be between 142 and 163 per cent. of production in 1928.

If the net value of world industrial production in 1928 is assessed at 72,000 million gold dollars,[1] the decline caused by the contraction of industrial activity would be, in round figures:

	Thousand million dollars, according to 1928 prices
1929	1.4 to 2.2
1930	12.2 „ 13.7
1931	20.9 „ 23.0
1932	28.1 „ 31.0
1933	22.3 „ 25.9
1934 (provisional estimate)	17.3 „ 21.6
Total...	102.2 to 117.4

The contraction was not equally violent, however, in every country and every branch of industry (cf. Appendices, tables 3 and 4). As a general rule the decline of industrial production was relatively less abrupt in agricultural than in industrial countries, an assertion that is confirmed by the results of calculations made by the " Institut für Konjunkturforschung ", Berlin, for the years 1930 and 1931.[2] The Institute distinguishes

[1] Estimate of the " Institut für Konjunkturforschung ", Berlin (*Die Industriewirtschaft*, p. 38).

[2] *Die Industriewirtschaft*, pp. 64-67.

between four groups of countries (leaving the U.S.S.R. out of account) :

(a) industrialised Europe (including some countries which, in the present report, are shown in table 2 of the Appendices as agricultural countries with highly developed industry);
(b) agricultural Europe;
(c) United States and Japan;
(d) semi-capitalised and newly capitalised countries (in particular, the British Dominions and some of the South American republics).

The placing of the United States and Japan in the same group is not in accordance with the distinction made here between the different countries according to the relative importance of agriculture and industry. But if the United States is classed with industrialised Europe and Japan with the countries where agriculture predominates, the following results are obtained :

	Index number of industrial production according to the " Institut für Konjunkturforschung ". 1929 = 100	
	1930	1931
Industrialised regions :		
United States	81	68
Industrialised Europe	92	81
Agricultural regions :		
Agricultural Europe	94	88
Japan	94	93
Semi-capitalised and newly capitalised countries	99	87

For industrialised Europe (Germany, United Kingdom, France, Czechoslovakia, Belgium, Netherlands, Austria, Sweden, and Denmark) and agricultural Europe (Poland, Italy, Hungary, Rumania, and Greece) the following general index numbers have been calculated for 1932 and 1933 in continuation of the German series :

	1929 = 100		
	1931	1932	1933
Industrialised Europe	81	70	76
Agricultural Europe	88	78	84

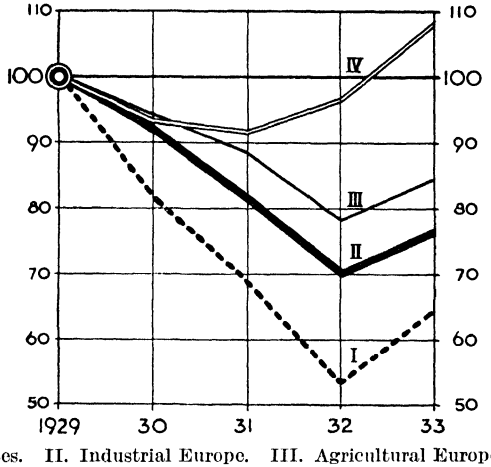
(See diagram IX, p. 48).

Thus the heaviest decline in factory and workshop activity took place in the countries which are responsible for the greater

part of world industrial production. The result is that the bulk of the decline in world production is concentrated in a relatively small region. The degree of this concentration may be estimated in the following manner :

According to the index number of world production prepared by the " Institut für Konjunkturforschung ", Berlin, and accepted by the League of Nations Economic Intelligence Service, nearly three-quarters of world industrial production was concentrated

DIAGRAM IX.—INDUSTRIAL PRODUCTION DURING THE DEPRESSION



I. United States. II. Industrial Europe. III. Agricultural Europe. IV. Japan.

before the depression in four great industrial States : the United States (44.80 per cent.), Germany (11.55 per cent.), the United Kingdom (9.26 per cent.), and France (7 per cent.). If to these are added Czechoslovakia (1.60 per cent.), Belgium (1.10 per cent.), Netherlands (1.00 per cent.), Switzerland (0.80 per cent.), Austria (0.60 per cent.), and Canada (2.22 per cent.), it will be seen that the industrial countries taken together were responsible in 1928 for nearly 80 per cent. of world industrial production (so far as this is recorded in statistics). The remainder was divided among the U.S.S.R. (4.65 per cent.), Italy (3.15 per cent.), Japan (2.35 per cent.), India (1.30 per cent.), Spain (1.20 per cent.), Sweden (0.85 per cent.), Poland (0.75 per cent.), Argentina (0.65 per cent.), etc. The countries in this latter group differ widely among themselves in their economic structure, but in all of them agriculture predominates.

The above figures give a rough division of the world into two economic sectors : on the one hand, about ten countries, responsible for about 80 per cent. of world industrial production, form the industrial sectors; and on the other, the remainder, with only 20 per cent. of world industrial production, form the agricultural sector.

Calculated in thousand million gold dollars according to 1928 prices, the net value of world industrial production was approximately as follows :

1928	1929	1930	1931	1932	1933	1934
72	77	67	59	53	59	65

To simplify the calculations, the method applied above may be rejected here, so that no account is taken of the contraction of production at the end of 1929 or of the rising tendency that was interrupted by the depression. In that case, the decline in world industrial production during the depression compared with the " normal " state in 1929, measured in thousand million gold dollars according to 1928 prices, may be estimated as follows :

1930	1931	1932	1933	1934
10	18	24	18	12

The distribution of this decline between the different countries may be estimated by means of the index numbers of industrial production for each of them (cf. Appendix 3 A), which should be considered in relation to the co-efficients of the distribution of world industry by countries.

The results of these calculations, however condensed and approximate they may be, are impressive. Over half the decline in world industrial production was borne by the United States, and nearly 90 per cent. by the ten industrialised countries. The total decline for the rest of the world was appreciable only during the first stage of the depression. In 1932, out of a total fall of 24,000 million " 1928 " dollars, 15,800 millions were borne by the United States, 3,300 millions by Germany, 1,600 millions by France, and 1,100 millions by Great Britain, leaving only 2,200 millions for the rest of the world.

So unequal a distribution of the decline is easy to explain. In the agricultural sector of the world only some countries (for instance, Italy, Poland, and Hungary) suffered a violent con-

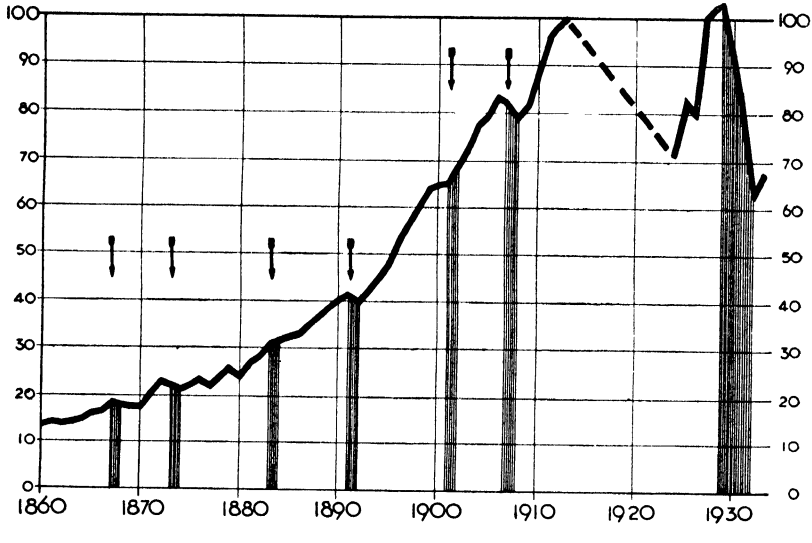
traction of industrial activity during the depression, while on the contrary the decline in most of the countries in this sector (Japan, Sweden, Norway, Finland, etc.) was not great and was counterbalanced by the growth in the industrial production of the U.S.S.R. and certain other countries (Rumania, Greece, Denmark, New Zealand).

To return to the consideration of world production as a whole, attention must also be drawn to the fact that the violence of the

DIAGRAM X.—INDEX OF INDUSTRIAL PRODUCTION IN GERMANY

(1913 = 100)

The arrows indicate the years of the depression



contraction of industrial activity during the last few years far exceeds the experience of all previous periods of depression.

As statistics of world industrial production are not available for a long enough period, the figures for the last depression can be compared with those for previous periods only by indirect methods. The evolution of industrial production in any one country, for instance, may be taken as representative, or else the activity of certain typical branches of world production may be chosen.

We may select first the industrial production of Germany since 1860.

From 1860 to 1913, the rise in German industry was interrupted six times (in 1867, 1872, 1883, 1891, 1900, and 1907) by economic depressions. But twice (in 1883 and 1900) the effect of the depression was only to slow down the expansion of industrial production. On the four other occasions there was an absolute shrinkage of production, of 6 per cent. from 1867 to 1870, 6 per cent. from 1872 to 1874, 3 per cent. from 1891 to 1892, and 6 per cent. from 1906 to 1908.

A decline of industrial activity of about 6 per cent. may thus be regarded as typical of pre-war periods of depression in Germany. The last depression, on the contrary, led to a diminution of production by over 39 per cent. (cf. diagram X, p. 50).

For a branch of world production the evolution of which can be studied over a fairly long period, we may take iron works (cf. diagram XI, p. 52).

The curve in diagram XI shows that pig-iron production is very sensitive to fluctuations in the economic situation. The 1907 depression, for instance, led to a decline of 20 per cent.; the setback was of similar dimensions in 1914, while the 1921 depression reduced the activity of iron works by 39 per cent. The decline due to the depression after 1929, however, far exceeds the previous figures. From 1929 to 1932 the world production of pig-iron fell by 58 per cent.

The fluctuations in the production of pig-iron are not typical, however, of the whole of world industry or of industry in the different countries, but reflect rather the changes in the volume of the production of durable goods and in particular of investment goods. Now these branches of production are generally more sensitive to fluctuations in the volume of business than are the branches producing consumers' goods (cf. Appendix 3 B).

This divergence in the degree to which the two sectors of industrial production have declined has been of capital importance as regards the social effects of the depression. Since the income available for direct consumption did not diminish to the same extent as production and employment, a reserve was formed which could be used for the maintenance of the unemployed. We shall return to this point later.[1]

As examples of the industries that have suffered most from the

---

[1] See Chapter III, p. 73 et seq.

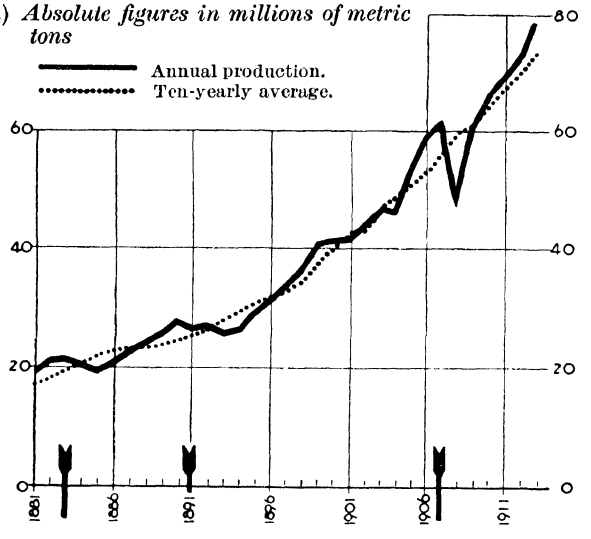
depression, the motor-vehicle industry and shipbuilding may be cited (cf. Appendix 3 C).

At all events, these branches of production are extreme cases

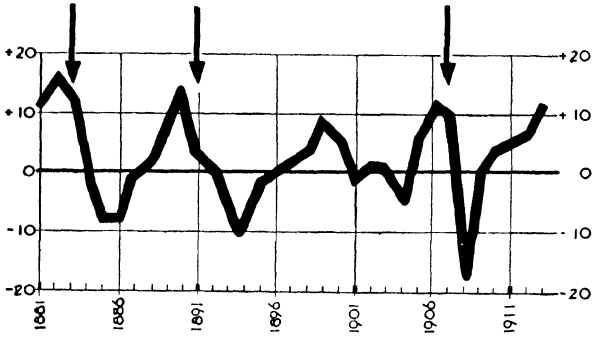
DIAGRAM XI.—WORLD OUTPUT OF CAST IRON FROM 1881 TO 1913

The arrows indicate the years of the depression

(a) *Absolute figures in millions of metric tons*



(b) *Divergence—as a percentage—between annual production and ten-yearly average.*



of the contraction of production, even allowing for the fact that they produce capital goods, as mentioned above.

The general movement of the industries producing capital goods is reflected in the evolution of the production of iron and

steel. For the world as a whole, the production of steel during the period 1925 to 1934 was as follows : [1]

	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934 [1]
In million metric tons	90.6	93.5	101.8	110.0	120.7	95.0	69.6	50.7	68.2	81.9
Index (1929 = 100)	75.1	77.4	84.3	91.1	100.0	78.7	57.6	42.0	56.5	67.8

[1] Provisional figures.

However, certain industries for investment goods resisted the depression better, the building industry in several countries being an instance. Its index number in 1932 showed a decrease (—), or an increase (+) on 1929 as follows in the different countries :

Country [1]	Per cent.
United Kingdom	0
Belgium	+ 4
Switzerland	+ 35
Netherlands	— 13
Sweden	+ 17
France	— 18
Greece	+ 4

[1] For the United Kingdom, number of houses completed; for Belgium, building permits; for Switzerland and the Netherlands, dwellings completed; for France, building permits; for Sweden, rooms completed; for Greece, official index number of building activity.

Source : Calculated according to statistics compiled by the Economic Intelligence Service of the League of Nations (*World Production and Prices, 1925-1933*, Geneva, 1934, p 132).

In mining, the petroleum and salt industries did not suffer much from the depression, and the production of gold even showed an enormous rise, due to its increased purchasing power.

	1929	1930	1931	1932	1933
Production of petroleum :					
In million metric tons	206	196	189	180	198
Index (1929 = 100).....	100	95	92	88	96
Production of salt :					
In million metric tons ...	26.7	25.9	24.2	23.0	24.8
Index (1929 = 100).....	100	97	91	87	93
Production of gold [1] :					
In metric tons	579	603	642	696	706
Index (1929 = 100).....	100	104	111	120	122

[1] The totals given here are incomplete owing to the lack of data for China and the U.S.S.R. and to the vagueness of the data for several South American countries. According to American estimates, the growth of the world production of gold during the depression was as follows :

	1929	1930	1931	1932	1933
In metric tons	609	618	695	751	789
Index (1929 = 100)	100	106	114	123	130

Source : Statistical Year-Book of the League of Nations, 1934-35, pp. 126, 136, 153.

As regards consumers' goods industries, some were almost untouched by the depression. Grain milling, food preserving,

[1] *Statistical Year-Book of the League of Nations*, 1934-35, p. 142.

margarine production, sugar factories, and several other branches of the food industry suffered little decline in their activity.

The textile industry also showed great powers of resistance as regards the volume of production. The cotton industry may be given as an example. According to the calculations of the *International Cotton Bulletin*, Manchester, the amount of cotton consumed by all the spinning mills of the world was as follows :

During the year ending 31 July	Thousand bales of cotton	Index number (1928-29 = 100)
1929	25,882	100
1930	25,209	97
1931	22,488	88
1932	22,322	86
1933	24,352	94

The woollen industry and the production of artificial silk withstood the depression even better. The world production of wool was as follows :

	1929	1930	1931 [1]	1932 [1]	1933 [1]
In thousand metric tons.	1,752	1,698	1,705	1,695	1,659
Index number (1929 = 100)	100	97	97	97	95

[1] Provisional data.

It is true that some of the wool produced during the depression was not consumed by the mills, but the growth of stocks from 1929 to 1932 was under 100,000 metric tons, which shows that the decline in the activity of the spinning mills was not more than 8 to 10 per cent.

The production of artificial silk even increased during the depression, the figures being as follows :

	1929	1930	1931	1932	1933	1934
In thousand metric tons .	198.9	192.9	224.6	240.2	349.7	413.8
Index number (1929 = 100)	100	97	113	121	176	208

Source : Statistical Year-Book of the League of Nations, 1934-35, p. 122.

B.—Agricultural Production

It has already been mentioned that the fluctuations in agricultural production during the depression were not very great and were limited mainly to certain raw materials. This is further illustrated by table 2.

TABLE 2.—INDEX NUMBERS OF WORLD AGRICULTURAL PRODUCTION, WEIGHTED BY THE 1930 VALUES

(Average 1925-1929 = 100)

	1925	1926	1927	1928	1929	1930	1931	1932	1933
Crude foodstuffs :									
Cereals, rice, potatoes, sugar	99	98	99	103	101	104	100[1]	104	101
Meat [1]	95	97	101	104	105	106	105	105	—
Wine and hops	109	79	96	109	107	92	101	104	96
Coffee, tea, cocoa	89	89	111	90	120	95	110	102	116
Total...	98	97	100	103	103	104	102	104	103
Raw materials :									
Tobacco	99	97	96	100	107	111	111	101	—
Oils and fats	95	94	104	101	106	102	103	98	100
Textiles	97	101	94	103	105	103	105[1]	98	104
Rubber	79	95	93	100	132	125	122	108	130
Woodpulp	85	94	99	104	117	114	104	98	—
Total...	97	99	97	101	105	103	103	96	100

[1] Partly based on estimates.

Source : LEAGUE OF NATIONS : *World Production and Prices, 1925-1933*, Geneva, 1934, p. 113.

Estimated according to 1930 prices the fluctuations in world agricultural production were as follows during the last few years :

	World production in million dollars according to 1930 prices				
	1929	1930	1931	1932	1933
Foodstuffs	31,390	31,721	31,084	31,799	31,220
Raw materials :					
Tobacco	888	926	922	845	—
Oils and fats	1,744	1,621	1,694	1,618	1,650
Textiles	3,746	3,686	3,739	3,495	3,700
Rubber	212	202	196	174	209
Woodpulp	616	599	544	512	—
Total ..	7,206	7,034	7,095	6,644	—

Source : Ibid., p. 113.

The aggregate decline for the four years 1930 to 1933 was under 1,000 million " 1930 dollars ", it would be larger by 20-25 per cent. if estimated according to 1928 prices. In any case the decline of production in the agricultural sector of world economy is of little importance compared with the setback to industrial production (cf. Appendix 4).

UNIVERSITY LIBRARY

C.—Commerce and Transport

As stated above, home trade must diminish in the same proportion as the quantity of goods in circulation. In fact, however, the statistics of national income (which will be reviewed later) do not always confirm this rule. They give the impression rather that the depression increased the importance of distribution as compared with production. But this impression is correct only in regard to the distribution of the national income, and is found on the contrary to be erroneous if commercial and transport services are measured in relation to national production.

In 1928 the whole of world commerce distributed to consumers a quantity of goods the net value of which, according to the producers' prices, was roughly 100,000 million dollars (the net value of industrial production plus half that of agricultural production). As commercial services were estimated at that date at 30,000 million dollars, they may be assessed during the years of the depression at 30 per cent. of industrial and agricultural production (after deducting rural products consumed by agricultural producers). On this basis the decline in the commercial services of all countries was about 3,000 million dollars in 1930, 5,400 million dollars in 1931, 7,200 million dollars in 1932, 5,400 millions in 1933, and 3,600 millions in 1934, or a total of 25,000 million dollars according to 1928 prices. The total would have been 31-35,000 million dollars if account were taken of the setback to world economic progress resulting from the depression.

The distribution of the decline in commerce and transport by countries does not correspond exactly to that of the decline in production. The United Kingdom, for example, kept its imports of foodstuffs more or less untouched during the depression, and the commercial branches responsible for their distribution had as much business in 1932 as in 1928.

Similarly, transport, while reflecting the general course of the economic activity of the country, did not contract in direct proportion to the fall in production. The fluctuations in railway traffic are particularly characteristic (cf. Appendix 5).

In 1932 the index numbers of railway traffic, like those of industrial production, reached their lowest point in nearly every country. As a general rule the decline in traffic (expressed in ton-kilometres) was more violent than that in production. The

decrease (—) or increase (+) from 1929 to 1932 is as follows for the two index numbers :

	Net industrial production Per cent.	Railway goods traffic Per cent.
I. Industrial countries :		
United Kingdom	— 16	— 21
Belgium	— 30	— 46
Germany	— 40	— 43
Austria	— 35	— 42
France	— 31	— 25
Czechoslovakia	— 37	— 43
United States	— 47	— 49
Canada	— 42	— 33
II. Agricultural countries :		
Sweden	— 10	— 45
Norway	— 8	— 30
Denmark	— 9	— 25
Italy	— 33	— 18
Japan	— 4	— 16
Finland	— 14	— 18
Poland	— 46	— 36
Rumania	— 6	— 1
Hungary	— 26	— 28
Greece	+ 1	— 23
Chile	— 13	— 50
New Zealand	+ 14	— 29

This survey shows that the comparatively favourable position of industrial production in agricultural countries did not prevent the contraction of their economic activity as illustrated by the circulation of goods, and in particular by railway traffic. [1]

On the assumption that for world transport as a whole the decline is equivalent to 15-20 per cent. of the decline in production, the following figures show approximately the total losses due to the depression in the period 1930-1934 :

	Decline in thousand million gold dollars at 1928 prices
Industrial production	102 - 117
Agricultural production	1
Trade	31 - 35
Transport	15 - 23
Total...	149 - 176

The total is roughly equivalent to the cost of the Great War. Before world trade, fluctuations in prices may first be considered.

[1] The decline of railway traffic in different countries shows less diversity than the fall in industrial production. For the twenty countries enumerated above (excluding the U.S.S.R.) the average unweighted decline of industrial production from 1929 to 1932 was 21.6 per cent. and that of railway traffic 31.2 per cent. The deviations of the percentage decline for each country from the average may be calculated for each of the two series, and thence the standard deviation (the square root of the arithmetic mean of the squares of the deviations) as a measure of the dispersion of the series; for production the value of is ± 16.9 and for railway traffic ± 12.3.

D.—The Movement of Prices

At the beginning of the depression there was a temptation to explain the fall in prices by the absolute over-production of goods of all kinds, and especially of raw materials, caused by excessive technical progress and aggravated by the effects of the World War. Quite apart from the theoretical problem, i.e. whether general over-production is at all possible, it should be noted that this hypothesis does not explain the movement of prices during the later stage of the depression. It may be admitted that technical progress from 1925 to 1929 was excessive, and that production in 1929 (47 per cent. above the 1913 level) was exaggerated and must therefore lead to a collapse of prices. But up to 1931 world industry went on diminishing, so that no more was being produced at that date than in 1925. The progress of four years of prosperity was completely held up, yet prices continued to tumble. They fell, among other things, because the purchasing power of the nations diminished more rapidly than production. If there are no objections to this explanation for the latest stage of the depression, might it not reasonably be applied also to the period preceding the depression? This would lead to the conclusion that the collapse of prices was prepared by the fact that purchasing power did not grow at the same rate as production and was not sufficiently stable to resist temporary fluctuations in the volume of business.

This view seems to be confirmed by the movement of prices during the last ten years : (1) the uncertain and on the whole falling tendency of prices during the period 1925-1929; (2) the progressive fall of prices from 1929 to 1932 in spite of the reduction of production; (3) the simultaneous change-over in the movements of prices and production in 1932 or after.

The fall in the general level of prices in a country depends on many and various conditions : the economic structure of the country (which determines the composition of its price index number), its tariff and monetary policy, etc. In some countries which, like Great Britain, had recourse in the autumn of 1931 to depreciation of their currency, prices have since then shown a rising tendency; in some other countries the change-over took place at the beginning of 1933, but in countries which remained faithful to the gold standard the fall continued up to 1935.

At the date of lowest prices the index number of wholesale prices for several countries fell below the average for 1929 by the following figures (see Appendix 7 A) :

	Per cent.
United Kingdom (June 1932)	36
Japan (June 1932)	33
United States (February 1933)	37
Canada (February 1933)	33
Sweden (March 1933)	30
Germany (April 1933)	34
Netherlands (April 1933)	50
Czechoslovakia (January 1934)	24
Switzerland (March 1935)	39
Italy (July 1934)	34
France (July 1935)	49

The general effects of a fall in prices (increased purchasing power of money, appreciated value of debts and acquired rights of all kinds) have been described in the previous chapter. The special effects typical of certain countries or confined to certain social classes are discussed later. Here it will be sufficient to note that the fall in prices during the last few years is unprecedented in the economic history of the world. There has been more than one example of a dizzy rise in consequence of inflation and the debasement of the currency, but it would be vain to search the annals of past depressions for a fall at all approaching in violence that of the last few years. This is sufficiently illustrated by the movement of the index number of wholesale prices in Great Britain from the middle of the nineteenth century to the present day (cf. diagram XII, p. 60).[1]

The relative diversity of the prices of the different groups of goods was not excessive during the last depression. Compared with the fluctuations in the price level, the deviations of the prices of the various groups from the general index number was not much greater from 1930 to 1933 than before the depression. But the relative divergence in the movement of the prices of different goods has less effect than the absolute divergence on economic and social conditions. If the price of an article *N* falls by 10 or 15 per cent., while the general index number declines by 2 or 3 per cent., the variability of the price of *N* is five times as great as that of the general index number. The relation would remain

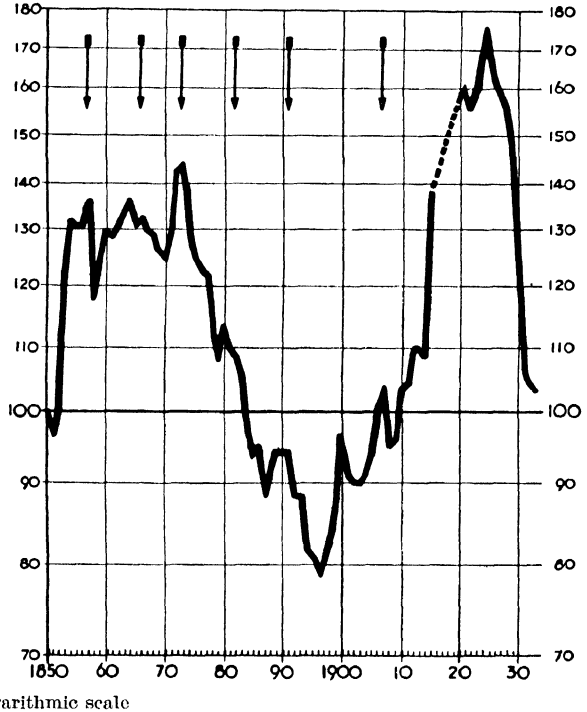
[1] Cf. Wladimir Woytinsky : " Die Preisbewegung der Jahre 1901-1912 und 1925-1930 " in *Weltwirtschaftsliches Archiv*, Kiel, Vol. 34, No. 2, October 1931, and " Preisdispersion und wirtschaftliche Gleichgewichtsstörungen " *ibid.*, Vol. 37, No. 2, April 1933.

the same if the general index number fell by 15 per cent. and the price of *N* by 75 per cent. But the effects of the divergence of price would be altogether different in the two cases.

The movement of prices during the last depression can show a number of characteristic divergences. Five of them in particular

DIAGRAM XII.—INDEX OF WHOLESALE PRICES IN GREAT BRITAIN (1850 = 100)

The arrows indicate the years of the depression



Logarithmic scale

are worthy of special mention : *(a)* the divergence between free prices and controlled or monopoly prices; *(b)* that between the prices of raw materials and the prices of manufactured goods; *(c)* that between industrial prices and agricultural prices; *(d)* that between the prices of imported goods and the prices of national products and exported goods; *(e)* that between wholesale prices and the cost of living.

(a) The divergence between free prices and those controlled by monopolies has enabled certain groups of producers to double

their prices as compared with free prices. By way of illustration the movement of the wholesale prices of raw materials and semi-manufactured goods in Germany may be given (average 1926 = 100) :

	Free prices	Monopoly prices	Ratio of monopoly prices to free prices
1929 : June	96.9	104.9	108
December	92.2	105.3	114
1930 : June	82.6	103.9	126
December	68.3	97.1	142
1931 : June	61.4	94.0	153
December	54.0	89.5	166
1932 : June	45.2	83.9	186
December	45.7	83.7	183
1933 : June	50.7	83.5	165
December	50.0	83.5	167
1934 : June	55.2	82.8	150
December	58.0	82.6	142

Tariff protection has in certain countries produced a similar situation for wheat and some other agricultural products, whose prices have remained unchanged in the midst of the collapse of other prices and of consumers' purchasing power.

(b) The divergence between the prices of raw materials and those of manufactured goods varies with the power of the different branches of production to adapt themselves to market conditions.

As a rule the fall in the price of raw materials during the last depression was greater than in that of semi-manufactured goods, while the latter in turn were more affected by the fall than manufactured goods. In the United States, for instance, the percentage fall in the price index numbers for the three groups of goods from June 1929 to December 1932 was as follows :

	Per cent.
Raw materials (109 commodities)	46
Semi-manufactured goods (93 commodities)	38
Manufactured goods (582 commodities)	28

A similar divergence may be observed in several other countries, but there are some exceptions to the rule. In Germany, for instance, the percentage fall in average prices in 1933 compared with the average for 1929 was as follows :

	Per cent.
Raw materials and semi-manufactured goods	33
Manufactured goods :	
Producers' goods	18
Consumers' goods	35
All manufactured goods	28

The difference in the price movements of the two groups of manufactured goods is much greater than that between manufactured goods as a whole on the one hand and raw materials on the other.[1]

(c) The origin of the divergence between industrial prices and agricultural prices has been explained above. The economic depression, which in the industrial sector of the world took the form of declining production, affected agricultural countries at the other end, namely, on the side of prices. The fall on world markets compelled the importing countries to raise tariff barriers in order to protect their national agriculture. For certain foodstuffs this policy has not been altogether unsuccessful. Thus, France, Germany, Italy and several other countries have succeeded in provisionally stabilising the price of wheat. But this policy of the importing countries has had disastrous effects on the countries exporting wheat, by accelerating the fall in prices on the home market.

The index numbers of the price of wheat in the two groups of countries are shown below (1929 = 100) :

	1930	1931	1932	1933
Importing countries :				
Germany	112	109	105	83
France	99	115	99	75
Italy (Milan)	98	77	86	75
Czechoslovakia	92	86	87	87
Exporting countries :				
United States (Chicago)	75	51	41	59
Canada (Winnipeg)	70	44	41	45
Argentina	94	61	65	56
Hungary	82	54	54	46
Rumania	63	39	54	63

Source : Calculated from statistics compiled in the *Revue de l'Institut International de statistique*, The Hague.

At the same time, tariff protection for the prices of certain agricultural products tended to aggravate the fall for other foodstuffs produced solely or mainly within the country. This is why livestock prices fell more heavily than cereal prices in certain countries. The price movement for various groups of

[1] The relative stability of prices in the " producers' goods " group in Germany may be explained by the agreements between producers, which are of special importance in this branch.

agricultural products in Germany may be given by way of example (average 1929-30 = 100) :

	1930-31	1931-32	1932-33	1933-34
Vegetable foodstuffs	99	97	81	81
Animal foodstuffs.....	85	73	65	78
Livestock.....	78	57	51	55

In most countries the divergence between agricultural and industrial prices became so great during the last depression that agriculture was deprived of a considerable proportion of its income. It will be sufficient here to compare two figures only. From June 1929 to December 1932 the average level of agricultural prices (67 commodities) in the United States fell by 57 per cent., while that of other goods (the 717 commodities to which the official index number relates) fell by only 32 per cent. Compared with other goods, agricultural products thus lost 37 per cent. of their value.

(d) The divergence between import prices and export prices is only a consequence of the divergences mentioned above.

As a rule the heaviest fall in industrial countries is that for imported goods, and in agricultural countries that for exported goods. By way of example, prices in Germany, France, and Czechoslovakia may be given on the one hand and those in Yugoslavia, Latvia, and the Netherlands Indies on the other.[1]

In June 1932 the prices of national products and of products of foreign origin in the industrial countries mentioned above fell as follows (average 1929 = 100) :

	Germany Per cent.	France Per cent.	Czechoslovakia Per cent.
National goods	—24	—25	—24
Imported goods	—53	—52	—37

The comparable figures for agricultural countries are as follows :

	Yugoslavia Per cent.	Latvia Per cent.	Netherlands Indies Per cent.
Exported goods	—45	—49	—59
Imported goods	—25	—23	—39

(e) Retail prices did not fall as much as wholesale prices during the depression. The relative stability of the cost of living was particularly impressive (cf. Appendix 7 B).

---

[1] League of Nations : *World Production and Prices, 1925-1932*; Appendix III, table 3, p. 151.

The divergence between these two index numbers is particularly marked in industrial countries and less pronounced in agricultural countries. In Finland and Rumania, and also in Japan, the cost of living fell even lower than wholesale prices. Apart from some exceptions, however, it is found everywhere that the adjustment of the cost of living to the fall in wholesale prices has been slow and incomplete. The reasons are evident.

(1) The cost of living includes, in addition to expenditure on various articles of consumption, fixed or almost unchanged items (e.g. rent).

(2) The margin between wholesale prices and retail prices constitutes the remuneration for transport and commercial services. The economic value of these services from the consumers' point of view varies directly with the quantity of goods in circulation, but their expenditure on labour and capital does not vary in the same proportion.

The position of commerce is particularly difficult. The quantity of labour it absorbs, which draws its remuneration from the difference in prices, did not diminish during the depression. As will be shown later, the influx of new competitors into small retail trade during a period of depression is greater than the diminution of the staffs of large undertakings. It is therefore economically impossible for retail prices to be reduced to the same extent as wholesale prices.

It is true that during the depression commerce employed more labour than was strictly necessary. But if it had been " rationalised " (as industry was rationalised shortly before the depression), the result would have been a tremendous increase in unemployment, a further decline in purchasing power, a further setback to production, a further fall in prices. The fall in the cost of living would have been paid too dearly.[1]

The influence of the monetary policy of several States on the fluctuations of prices during the last stage of the depression depended on the degree of depreciation of the national currency.

---

[1] There is no need to say that the rationalisation of trade would have led to a fall in the cost of living. The increase in actual purchasing power would in this case have taken the form of a demand for a larger quantity of goods, so that the unemployment of commercial employees would have been compensated by the additional employment given by production. This reasoning, however, might be used to justify the gradual " rationalisation " of any economic branch where staffs can be reduced by the introduction of new machinery, etc. The real issue is the time that elapses before the expected compensation actually takes place.

The United Kingdom and Sweden succeeded in gradually raising nominal wholesale prices while at the same time considerably lowering the same prices calculated in gold and gradually stabilising the cost of living.

In Japan and the United States a more vigorous depreciation of the currency led to a general rise in prices. The following figures illustrate these fluctuations (September 1931 = 100) :

	September 1932	September 1933	September 1934	September 1935
United Kingdom :				
Wholesale prices (in £)	103	104	106	108
" " (gold).....	74	68	66	65
Cost of living (in £)	98	97	98	99
Sweden :				
Wholesale prices (in kronor) ...	103	102	107	108
" " (gold).....	68	62	63	51
Cost of living (in kronor) ...	99	97	98	99
Japan :				
Wholesale prices (in yen)	113	123	121	127
" " (gold).....	54	43	42	44
Cost of living (in yen)	103	110	112	117
United States :				
Wholesale prices (in dollars) ...	93	100	110	115
" " (gold).....	93	67	65	69
Cost of living (in dollars) ...	91	85	90	93

E.—World Trade

For world trade use may be made of the investigations and calculations of the Economic Intelligence Service of the League of Nations.

The total value of the imports and exports of all countries in the world was as follows (in 1,000 million dollars) :

	1928	1929	1930	1931	1932	1933	1934
Imports	34.7	35.6	29.1	20.8	14.0	12.5	12.0
Exports	32.8	33.0	26.5	18.9	12.9	11.7	11.4

Source : Statistical Year-Book of the League of Nations, 1934-35, Geneva, 1934, p. 209.

This violent contraction, however, was due to the fall of prices rather than to a decline in the quantity of goods exchanged between the nations. If 1929 is taken = 100, the

index numbers showing the movement of world trade fluctuated as follows :

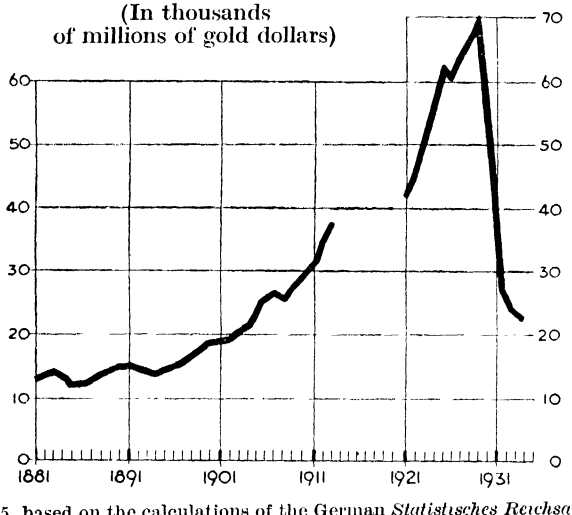
	1928	1929	1930	1931	1932	1933	1934
Value in gold dollars :							
Imports	97.2	100	81.7	58.5	39.3	35.1	33.7
Exports	99.0	100	80.2	57.2	39.0	35.4	34.5
Total...	98.1	100	81.0	57.9	39.2	35.2	34.1
Price (in terms of gold)	103	100	87	67.5	53	47	44
Volume	95	100	93	86	74	75	77

Source : LEAGUE OF NATIONS : *Review of World Trade, 1933*, Geneva, 1934, p. 10; cf. *Monthly Bulletin of Statistics*, March 1936.

In brief, the real decline in world trade was not more marked than the diminution of industrial production.

At the same time, the experience of the pre-war period should not be forgotten, when each depression held up the growth in the nominal value of world trade but never led to an absolute fall in its volume. The diagram below, which shows the movement of world trade in terms of gold, brings out the extraordinary violence of its contraction during the last depression (cf. diagram XIII).

DIAGRAM XIII.—VALUE OF INTERNATIONAL [1] EXCHANGES
(IMPORTS AND EXPORTS)



[1] Up to 1925, based on the calculations of the German *Statistisches Reichsamt*, from 1926 onwards from the Economic Intelligence Service of the League of Nations.

From 1881 to 1913 the rising tendency of world trade was interrupted three times. The total value of imports and exports fell from 1883 to 1885 (by 9 per cent.), from 1891 to 1894 (by

8 per cent.), and from 1907 to 1908 (by 7 per cent.). But during these same periods world prices (measured according to the wholesale-price index for the United Kingdom published by *The Economist*) contracted even more (from 1883 to 1885 by 11 per cent., from 1889 to 1894 by 13 per cent., and from 1907 to 1908 by 9 per cent.). The volume of international trade thus retained its rising tendency during these earlier periods of depression,[1] very much in contrast to the experience of the depression of the last few years.

The imports and exports of countries with different economic structure, however, were not equally affected by the depression (see Appendix 6).

The characteristic feature of the movement of foreign trade in most industrial countries—except the United States—is that the volume of their exports contracted less than that of their imports, as is shown in table 3 :

TABLE 3.—IMPORTS AND EXPORTS OF INDUSTRIAL COUNTRIES DURING THE DEPRESSION

Year	United Kingdom		Germany		France		United States	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
	In millions of gold dollars							
1929	5,407	3,549	3,203	3,212	2.282	1,965	4,339	5,157
1930	4,658	2,778	2,476	2,867	2,058	1,679	3,120	3,782
1931	3,585	1,772	1,602	2,286	1,654	1,193	2,088	2,378
1932	2,276	1,279	1,108	1,363	1,171	774	1,325	1,576
1933	2,073	1,213	996	1,155	1,117	724	1,112	1,280
	In millions of dollars at 1929 prices							
1929	5,407	3,549	3,203	3,212	2,282	1,965	4,339	5,157
1930	5,377	2,907	2,873	3,064	2,383	1,751	3,710	4,177
1931	5,434	2,225	2,383	2,762	2,430	1,493	3,298	3,481
1932	4,774	2,232	2,239	1,902	2,033	1,053	2,625	2,707
1933	4,849	2,279	2,207	1,792	2,118	1,173	2,785	2,707

Source : Calculated from statistics compiled in the League of Nations *Review of World Trade 1931-1932*, pp. 28-44; *1933*, pp. 17-33.

[1] In view of the approximate nature of the estimates reproduced above, this statement calls for certain reservations. The German Federal Statistical Office published in its Year-Book for 1934 (p. 121*) an index number of the volume of world trade since 1900, which shows for 1908 a decline of 5.4 per cent. This conclusion rests on the price index number used by the Federal Statistical Office, which is the arithmetic mean of the British index

Taking actual prices, the imports and exports of the United Kingdom, Germany, and France had the following aggregate value (in millions of gold dollars) :

	Imports	Exports	Excess of imports
1929	10,892	8,726	2,166
1930	9,192	7,424	1,768
1931	6,841	5,251	1,590
1932	4,555	3,416	1,139
1933	4,186	3,092	1,094

Thus, during the depression these countries improved their balance of trade and reduced their deficit.

But on the assumption that prices did not change, the foreign trade of these same three countries was as follows (in millions of " 1929 dollars ") :

	Imports	Exports	Excess of imports
1929	10,892	8,726	2,166
1930	10,633	7,722	2,911
1931	10,247	6,480	3,767
1932	9,046	5,187	3,859
1933	9,174	5,244	3,930

Whereas the *nominal* excess of imports diminished, the *real* excess increased. Industrial countries profited by the divergence of prices. They reduced their imports of raw materials only slightly, but paid for them with a much smaller quantity of their national products, their balance of payments not being adversely affected by the difference.

As mentioned earlier, this lucrative operation had only one disagreeable side : since the foreign markets for manufactured goods had shrunk, the earnings of industrial countries out of world trade were counterbalanced at home by a decline in employment and an increase of unemployment.

F.—Unemployment

Unemployment of unprecedented severity was experienced during the depression in every country and nearly every occupation. All groups of employed persons were affected, wage earners

---

number of the Board of Trade and the United States index number of the Bureau of Labor Statistics. The Board of Trade index, however, shows a decline in 1908 of only 3 per cent,. whereas the British index of *The Statist*, like that of *The Economist*, is reduced by 9 per cent., the German index of Dr. Conrad by 8 per cent., and the official French index by 7 per cent. It seems, therefore, that the German Federal Statistical Office has underestimated the fall in world prices in 1907.

as well as salaried employees, women as well as men, the young as well as adults and the aged.

But the decline in employment was not equally intense in every branch of economic activity. The real home of distress was industry, and it is from there that unemployment gradually spread to other branches of economic activity.[1]

For a study of the problem of unemployment, the reader may refer to the chapter devoted to this subject.[2] This applies also to the fluctuations in hours of work (short time) and wages during the depression.

G.—Capital

This survey of the depression as it is reflected in figures would be incomplete without a reference to the fluctuations in the earnings of capital and the changes in its real value.

In modern economic conditions capital assumes very varied forms. From the point of view of the social effects of the depression and fluctuations in national income, two forms of capital may be distinguished :

(a) Passive capital : savings bank deposits, the real deposits of commercial banks, loans to the State or private undertakings in the form of fixed-interest bearing bonds, etc.;

(b) Active capital : investments, partnerships in undertakings, industrial shares.

Passive capital does not share in the risks of commercial and industrial undertakings and is satisfied with a moderate return, which may sometimes fall to zero (as in the case of money withdrawn from circulation and hoarded). Active capital, on the contrary, is exposed to loss in order that it may take advantage of any opportunity of earning a high return.

The fate of the two forms of capital in a period of depression is very different, but the difference was never so great as during the world depression studied here.

During the last few years there has been an enormous increase in passive capital. Not only have savings bank deposits not diminished during this period, but their accumulation has continued at a high rate throughout the world. Taking into account

---

[1] Cf. Wladimir Woytinsky : *Three Sources of Unemployment*, p. 161.
[2] Cf. below, Second Part, Chapter I.

the increase in the purchasing power of money (in proportion to the fall in prices), an astonishing fact emerges. During the depression, which meant the impoverishment of the world and widespread destruction of the income and wealth of the nations, the real value of the capital accumulated in savings banks increased as though world economic activity was in full swing.

In comparison with the situation on 31 December 1929 (= 100), the total deposits in the savings banks of the different countries at the end of 1934 may be measured by the following index numbers :

Country [1]	Expressed in national currency	Converted into currency with unchanged purchasing power [2]
Industrial countries :		
United Kingdom (A + B)	129	149
Belgium (B)	192	242
Germany (A)	137	169
Switzerland (C)	148	185
Netherlands (A + B)	140	167
France (A + C)	191	212
Czechoslovakia (A)	114	123
United States (C + B)	140	165
Agricultural countries :		
Sweden (B)	166	173
Norway (A)	70	78
Denmark (A)	103	105
Italy (A + B)	142	190
Japan (A + B)	143	154
Finland (A + B + C)	123	154
Poland (A + B)	217	303
Hungary	164	208
Bulgaria (B)	278	401
Yugoslavia (B)	671	1,061
Chile (A)	138	108

[1] A = ordinary savings banks; B = post office savings banks, C = other savings banks.
[2] The conversion is effected by means of the official cost-of-living index number

Source : Statistics compiled in the League of Nations *Monthly Bulletin of Statistics*

Thus it is in agricultural countries (Yugoslavia, Bulgaria, Poland) that the real increase in the volume of savings has been particularly impressive. Here is a paradox that can be explained only by studying in detail the situation of savers during the depression.

It should also be observed that, besides the growth in savings bank deposits during the depression, there was an increase in another form of passive capital, due to the hoarding of gold and bank notes. There are no international statistics of hoarded gold and bank notes, for it is not possible to draw a line between money actually in circulation (even though that circulation may have been slowed down) and money held back by people who no longer

wish to entrust it to credit institutions. By comparing the different indexes of economic activity, however, an approximate estimate may be obtained of the amount of money hoarded in a country. This question, like that of the increase in savings, will be dealt with in Part II of this volume.[1]

Hoarding is not a phenomenon common to all countries affected by the depression or to all the phases of the depression. But apart from a few isolated exceptions, passive capital has increased everywhere during the last few years. Active capital, on the other hand, has suffered enormous losses during the same period, shown not only by the decline in profits, but also by the depreciation of investments and the fall in the value of industrial shares.

This last phenomenon is especially characteristic of the depression. It may be admitted that the quotations of variable-interest bearing securities do not always correspond to the real value of the undertakings they represent. Owing to the effects of speculation, and sometimes of illicit manœuvres, exchange quotations may reach a level justified neither by the importance of the investments of the undertaking nor by its earnings.

Further, quotations may vary under the influence of psychological and political factors (cf. Appendix 7).

It was in 1932 that exchange quotations in most countries reached their lowest point. Yet at that date the purchasing power for money was quite different from what it was in 1929. It therefore becomes necessary to compare the movement of share quotations with the fluctuations in the real value of the currency unit. Since the money in question is invested in industrial undertakings, the calculations should be based on wholesale-price index numbers and not on cost-of-living index numbers. They then give the following indexes, expressing the average quotations of industrial shares in 1932, 1933, and 1934 in terms of a currency with unchanging purchasing power (1929 = 100) :

	1932	1933	1934
Industrial countries :			
United Kingdom	88	107	127
Belgium	54	57	52
Germany	56	76	97
Switzerland	75	100	105
Netherlands	50	58	56
France	69	70	58
United States	37	51	56
Canada	34	50	64

[1] See Second Part, Chapter IV.

	1932	1933	1934
Agricultural countries :			
Sweden	46	54	67
Norway	78	97	96
Denmark	96	100	103
Italy	64	90	106
Spain [1]	65	59	59
Poland	41	49	50
Hungary	75	83	74

[1] 1930 = 100.

The last stage of the depression led to a marked improvement in quotations (as compared with the level of prices) in nearly every country which succeeded in increasing its industrial production. But from 1929 to 1932 active capital meant only a loss to its owners, whereas passive capital gained in real value owing to the fall in prices. Is there any need to look farther for an explanation of the reluctance to invest? The slump in confidence is only a euphemism for the almost absolute certainty of the public that it will lose its money in any kind of investment and that the best means of protecting and multiplying its property is to do nothing with it. But it is none the less true that the reluctance to invest and the dislike of the public for any kind of long-term commitment have contributed to the progressive fall in the value of securities.

CHAPTER III

THE NATIONAL INCOME OF VARIOUS COUNTRIES DURING THE DEPRESSION

What was said in the previous chapter will have brought out the extent and variety of the outward signs of the depression and will have shown that some of them are closely linked up with the economic structure of countries. Industrial countries suffered from the depression in a different way from agricultural countries.

Countries differ from each other, however, not only in their degree of industrialisation but also in many other respects. Every country passed through the depression in its own peculiar manner just as every person suffers differently in the course of an epidemic.

It will therefore be desirable to supplement the general survey of the outward signs of the depression by some special observations concerning the development of the national income in a certain number of countries. The following may be taken as examples : Great Britain (a purely industrial country), France, Germany and the United States (industrial countries with extensive agriculture), Japan (an agricultural country with extensive industrial development) and Bulgaria (a purely agricultural country).

A.—Great Britain

Among the economic powers of the world Great Britain is the only one that can be considered a purely industrial country. The distribution of the population over various occupations in the United Kingdom has no counterpart elsewhere (cf. Appendix 2).

The insignificance of agriculture (which would be capable of supplying food for the United Kingdom for only two months in the year) has led the Government of Great Britain, which in other cases follows a policy of Empire free trade or of protection, to

leave British industry entirely free to benefit by the fall in wheat prices on the world market. Consequently, the divergence between the prices of manufactured articles and the prices of agricultural products during the depression was particularly marked in Great Britain.

One would therefore expect the development of Great Britain during the depression to follow the lines described above as being characteristic of an industrial country. The situation of the United Kingdom just before the depression, however, was not comparable with that of any other country.

In a work that has now become a classic, Mr. A. L. Bowley and Sir Josiah Stamp made an estimate of the national income of the United Kingdom in 1911 and 1924. They found the total for 1911 to be £1,988 millions and for 1924 £3,803 millions (cf. Appendix 8 A). These results led the authors to the following conclusion:

"The real home-produced income per head (when duplication is eliminated) was very nearly the same in 1911 and 1924; it is improbable that it was any greater in the latter year and it may have been 4 per cent. less. Owing to the fall in the value of income from abroad and the excess of payments to the United States over reparation payments received, the income available for spending or saving was approximately the same in the aggregate and 5 to 10 per cent. less per head." [1]

A few years later Mr. Colin Clark, on the basis of new statistics, found that the national income of Great Britain in 1911 was higher and in 1924 rather lower than the figures given by Bowley and Stamp. His estimates are shown in table 4 (p. 75).

Mr. Bowley partially admits the correctness of Mr. Colin Clark's figures, but he thinks that the grand total given for 1924 falls short of the real figure.[2] The real amount of the national income for 1924 probably lies between those two estimates. The real income per head of the population of the United Kingdom at that date was therefore from 10 to 15 per cent. below the pre-war figure. In 1924, moreover, industrial production in Britain was 9 per cent. below the 1913 level, whereas in practically every other country it had exceeded the pre-war figure. Consequently, while the world as a whole was enjoying an economic revival the United Kingdom was suffering from a chronic depression.

---

[1] Arthur L. Bowley and Sir Josiah Stamp: *The National Income, 1924. A Comparative Study of the Income of the United Kingdom in 1911 and 1924*, Oxford, 1927, p. 56.

[2] A. L. Bowley: "The National Income of the United Kingdom in 1924." *Economica*, London, May 1933, p. 138.

TABLE 4.—NATIONAL INCOME OF THE UNITED KINGDOM IN 1911, 1924 AND 1928, ESTIMATED BY MR. COLIN CLARK

(Millions of £)

	1911	1924	1928
Taxable income	927	2,202	2,317
Employers' rates and social insurance payments	29	95	130
Wages	773	1,413	1,460
Incomes below the taxable minimum	303	188	222
Government income	6	— 20	23
Gross income	2,038	3,878	4,152
Substract :			
Sums due abroad	10	25	25
Interest on the internal national debt	16	267	278
Net income	2,012	3,586	3,849

Source : Colin CLARK . *The National Income, 1924-1931,* London, Macmillan, 1932, p. 63.

The special situation of Great Britain just before the depression naturally had important consequences as regards its economic development during subsequent years. In the first place, a relatively slight decrease in industrial activity was sufficient to cause serious difficulties, whereas other countries—for example, France or Norway—were able to undergo a much more extensive decline in production without feeling the effects so acutely. In the second place, public opinion in Great Britain had begun long before 1929 to pay attention to the problems arising out of the depression, and it was therefore much better prepared for the active struggle against the depression than public opinion in most other countries.

Mr. Colin Clark has also estimated the national income of Great Britain for later years (cf. Appendices 8 B and C). According to him the national income, after eliminating duplication, was as follows (in millions of £).

	1927	1928	1929	1930	1931
Net income	3,887	3,849	3,996	3,938	3,499
Depreciation of national equipment	404	433	438	437	439
Gross income	4,291	4,282	4,434	4,374	3,938

Source : Colin CLARK, *op. cit.*, p. 115.

Reference may also be made to the elaborate technique evolved by Mr. Clark for the continuous measurement of the national

income. This method is based on the fact that the degree of variability of the items which make up the national income is very different.[1] Some of these items remain more or less constant from year to year, so that the total is influenced mainly by a small number of variable factors. It is therefore sufficient to assess by statistical means the increase or decrease in the value of these factors to arrive at conclusions concerning the changes in the total income. Mr. Clark advocates two methods of doing this : the one based on statistics of wages and profits and the other on statistics of consumption and investment. He says :

" Let F be the amount spent on consumption, I the current value of new investment, E the total of costs of production, including a normal profit which must be arbitrarily defined, and Q the excess or deficit of current profits above or below normal ".

According to these definitions, national income may be expressed by the sum of F + I or by the sum of E + Q. The increase in the two totals over the same period must be the same. Mr. Clark finds in the statistics of the United Kingdom all the figures he needs to calculate the two totals quarterly. The results obtained by this method are summarised in table 5.

TABLE 5.—ESTIMATES OF THE NATIONAL INCOME OF GREAT BRITAIN DURING THE DEPRESSION, MADE BY MR. COLIN CLARK

(in millions of £)

E = Total cost of production (including a normal profit).—Q = Excess or deficit of current profits above or below normal.—I = New investments.—F = Consumption.

Year	Series E + Q			Series I + F		
	E	Q	E + Q	I	F	I + F
1928	4,326	— 37	4,289	757	—	—
1929	4,415	— 16	4,399	824	—	—
1930	4,296	— 130	4,166	690	3,406	4,096
1931	4,150	— 259	3,891	513	3,261	3,774
1932	4,133	— 280	3,853	521	3,197	3,718

Source : Colin CLARK : " The National Income and the Theory of Production. " *Economic Journal,* London, June 1933, p. 211. The table is given here in simplified form.

[1] Colin CLARK : " The National Income and the Theory of Production. " *The Economic Journal,* London, June 1933, pp. 205-216.

Certain objections were made to some of Mr. Clark's estimates for 1932, which some critics considered unduly high.[1] Mr. Clark himself subsequently corrected his calculations and finally estimated the national income of the United Kingdom as being £3,655 millions in 1931 and £3,620 millions in 1932.[2] The amount of the national income as estimated by this author can be converted into pounds with a fixed purchasing power. If these are then transformed into index numbers, they will reflect the course of development of the real national income of the United Kingdom. These may then be compared with the index of industrial production in Great Britain :

National income

(in millions of £)

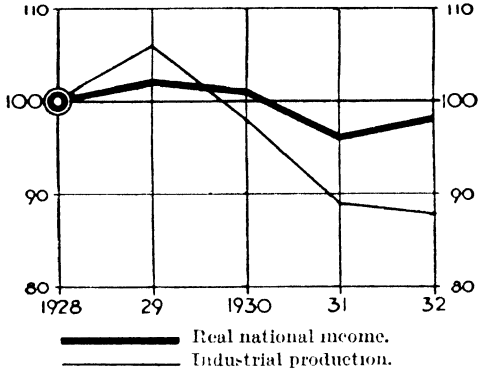
	Based on actual prices	Based on 1928 prices [1]	Index of real income (1928 = 100)	Index of industrial production (1928 = 100) [2]
1928	4,289	4,290	100	100
1929	4,399	4,420	103	106
1930	4,131	4,340	101	98
1931	3,655	4,110	96	89
1932	3,620	4,210	98	88

[1] Converted on the basis of the cost of living index.
[2] Board of Trade index.

(See diagram XIV.)

DIAGRAM XIV.—NATIONAL INCOME AND INDUSTRIAL PRODUCTION IN GREAT BRITAIN DURING THE DEPRESSION

(1928 = 100)



[1] *The Economist,* London, 21 October 1933; Mr. Feavearyear in an article in the *Economic Journal,* March 1934, to which reference will be made again later.

[2] Colin Clark : " Further Data on the National Income ". *Economic Journal,* September 1934.

It will be noted that the general trend of real income in the United Kingdom corresponds to the trend of industrial production, but changes in production are only slightly reflected in the development of national income. The increase in production of 6 per cent. in 1929 led to an increase of only 2 per cent. in national income, and the decline of 16 per cent. in production in 1931 was accompanied by a fall of only 6 per cent. in real national income.

This discrepancy becomes even more striking if one estimates the absolute loss of national income in Great Britain, and the absolute drop in national production (Circles B and C of diagram IV, p. 9).

The Industrial Census made in Great Britain in 1930 showed the net value of industrial production (including mines, building and public works) to be £1,431.8 millions.[1]

Taking this figure as a basis and taking into account the index of industrial production and the change that took place in prices, the losses of British industry during the depression as compared with 1929 may be estimated as follows (in millions of £ at 1928 prices) :

1930	1931	1932	1933
118	258	262	182

To these figures must be added the losses of commercial and transport services. In 1929 the income of commercial and transport services in Great Britain was equal to about 90 or 95 per cent. of the income of industrial occupations (cf. Appendix 8 C), but the distributive services are not engaged solely in handling national industrial output. Before the depression, 25 per cent. of the national production of Great Britain was intended for export, and home consumption included 32 per cent. of imported articles. It would therefore seem possible to estimate that two-thirds of commercial and transport services handle national production and one-third does not depend directly on the activity of national factories and workshops.

In the light of these considerations, the absolute losses in commerce and transport as a result of the depression may be estimated at 60 per cent. of the losses in industrial production.[2]

---

[1] The *Board of Trade Journal*, 16 February 1933, p. IV.

[2] The hypertrophy of commerce during the depression does not affect this estimate : the surplus labour absorbed by commerce added no supplementary service to the national output. The real value of transport and commercial services in handling the products of national industry decreased in direct proportion to the volume of these products.

The following are the results of calculations on this basis.

	1930	1931	1932
Loss of national income in millions of " 1928 £ "	— 10	— 240	— 140
Losses of production and commercial and transport services in millions of " 1928 £ "	— 189	— 413	— 419

The national income therefore fell to a less marked extent than national output. The divergence can be expressed in the following figures (in millions of £ at 1928 prices).

1930	1931	1932
179	173	279

For the four years from 1930 to 1933 the losses of industrial production, commerce and transport were probably in the neighbourhood of £1,300 millions (at 1928 prices) whereas the national income of Great Britain lost only between 450 and 500 millions. One would have expected the loss of income in that country during the depression to have been greater than the decline in its internal economic activity, for that decline would be supplemented by the loss on capital invested abroad.

This phenomenon can be explained by the theoretical considerations outlined above. During the depression Great Britain was able to obtain a profit from the unequal fall in the prices of imported articles and exported commodities (see table 6, p. 80).

From 1930 to 1933 Great Britain imported goods representing a total value of £3,004 millions and exported in exchange national products to a value of £1,632 millions. The excess of imports (£1,372 millions in four years) did not involve a heavier burden on the balance of payments by the country than during the period preceding the depression. However, on the basis of invariable prices the imports of Great Britain exceeded its exports by 1,823 million " 1930 £ " or between 2,100 and 2,200 million " 1928 £ ".[1]

Of this real surplus only £1,372 millions were shown in the balance of payments of the United Kingdom. The difference represents a net gain from the depression in Great Britain, and this gain counterbalanced in the national income account an important fraction of the losses resulting from the decline in industrial activity.

[1] The change in the basis of comparison presents particular difficulties in this case, and the estimate cannot therefore claim to be as accurate as the official calculations in table 6.

TABLE 6.—FOREIGN TRADE OF GREAT BRITAIN

	1929	1930	1931	1932	1933
			In millions of £		
Imports retained in the country. Values as declared :					
Food, drink and tobacco ...	509.5	451.4	396.8	357.8	328.5
Raw materials	285.3	212.1	147.6	140.9	154.7
Manufactured articles	305.5	283.3	244.5	146.0	140.0
Total ...	1,100.3	946.8	788.9	644.7	623.2
			In millions of " 1930 £ "		
Value on basis of average prices for 1930 :					
Food, drink and tobacco ...	445.8	451.4	488.3	470.0	461.2
Raw materials	237.3	212.1	199.1	203.0	222.4
Manufactured articles	283.6	283.3	288.1	184.7	190.2
Total ...	(966.7)	946.8	975.5	857.7	873.8
			In millions of £		
Products exported from the United Kingdom. Value as declared :					
Food, drink and tobacco ...	55.7	48.2	35.5	32.3	28.5
Raw materials	78.9	63.8	47.1	43.6	46.0
Manufactured articles	573.8	440.0	290.6	275.6	280.4
Total	708.4	552.0	373.2	351.5	354.9
			In millions of " 1930 £ "		
Value on the basis of average prices for 1930 :					
Food, drink and tobacco	51.6	48.2	40.1	38.5	34.7
Raw materials	75.5	63.8	52.3	49.3	53.2
Manufactured articles	550.0	440.0	326.3	336.9	347.3
Total	(677.1)	552.0	418.7	424.7	435.2
Excess of imports :					
In millions of £	391.9	394.8	415.7	293.2	268.3
In millions of " 1930 £ " ...	289.6	394.8	556.8	433.0	438.6

Source : The Board of Trade Journal, 26 January 1933, pp. 126-133, and 25 January 1934, pp. 129-130.

These variations in prices had other consequences for Great Britain : as exports declined in consequence of the divergence

between the price movements of various goods, unemployment grew to an extraordinary extent. The decline in exports meant a restriction of the markets for British industry representing a loss equivalent to unemployment for about 750,000 persons for four years.

The average number of completely unemployed persons in the United Kingdom developed as follows :

1929	994,000
1930	1,467,000
1931	2,129,000
1932	2,273,000
1933	2,110,000

The next point to be considered is the consumption of the national income (circle D in the diagram). Table 5 (p. 76) showed that the fraction of the national income used for investment (I) fluctuated more violently than the fraction used for direct consumption (F). It we take the total I + F in 1928 and 1929 as being equal to the sum given by the formula E + Q, the following values will be obtained for the two parts of the national income (investment and direct consumption) (millions of £) :

	1928	1929	1930	1931	1932
Investment	757	824	690	513	521
Consumption	3,532	3,575	3,406	3,261	3,197

If we assume that prices, calculated on the basis of the cost of living index, remained invariable, the following would be the figures for direct consumption (in millions of " 1929 £ ") :

1928	1929	1930	1931	1932
3,490	3,575	3,540	3,640	3,640

According to this estimate the direct consumption in Great Britain did not contract to any appreciable extent during the depression.

This conclusion, improbable as it may appear, is confirmed by statistics of foodstuffs on the British market during the depression. Mr. A. F. Feavearyear estimated the expenditure of the population of the United Kingdom on food at £1,239.5 millions on the average from 1924 to 1927 and £1,107.5 millions in 1932 (cf. Appendix 8 D). The decrease of 11 per cent. can be explained in this case entirely by the fall in prices. The amount of food consumed in the country in 1932 was therefore quite as great as from 1924 to 1927.

Mr. Feavearyear even considers that there has been an improvement in food consumption in Great Britain during the last few years in respect both of quantity and of quality. He writes :

" In a few cases the apparent increase of consumption may be fully accounted for by an increase of waste, which often occurs when prices fall. But the improvement in the average diet in the year of deepest depression as compared with the position seven years earlier is beyond doubt. The drawbacks of our dependence upon imported foods are often pointed out; but in the past two years the much lower level of food prices compared with the prices of manufactured goods has been one of the principal reasons for the comparatively happy position of the country. One wonders what might have happened in some of the depressed areas of Great Britain had this cheap food not been available. " [1]

The present writer would support these observations by pointing to the almost continuous increase in the British imports of such foodstuffs as ham, butter, cheese, fruit, cocoa, coffee, grapes, sugar and bananas (cf. Appendix 8 E).

It is true that the increase in the total consumption or in the average consumption per head does not preclude the possibility of an increase in the sufferings and privations of certain groups of society, and there can be no doubt that the depression made social contradictions more acute in every country. The most striking features of the economic situation in Great Britain during the depression were however the following :

(a) National production declined considerably (decrease in industrial output and increase in unemployment);

(b) As result of the unequal fall in prices, a large part of the real loss of national income in Great Britain was passed on to foreign countries, more particularly to agricultural countries;

(c) The real income of Great Britain declined to a comparatively slight extent and affected mainly investments and savings, whereas direct consumption (and in particular the consumption of food) did not fall to any noticeable extent during the depression.

The increase of unemployment in Great Britain was not accompanied by a decline in the standard of living (more especially the level of nutrition and housing). From this point of view Mr. Feavearyear is right to emphasise the happy position of his country

[1] *Economic Journal*, London, March 1934, p. 47.

as a result of the divergence in prices on the world market. It must, however, be added that the same divergence in prices was responsible for an increase of 750,000 in the number of unemployed persons in the United Kingdom.

B.—Germany

Although Germany is not purely an industrial country like Great Britain, industry is the dominant part of its economic structure (cf. Appendix 2).[1]

Since the end of the nineteenth century Germany has been exporting industrial products and thus paying for raw materials and foodstuffs (more particularly fodder) which it lacks. It was the progress of industrialisation that was the chief factor in the economic development of Germany in the pre-war period. According to recent estimates by the National Statistical Office, the national income of Germany was 24,800 million marks in 1891 and 50,100 millions in 1913; it had therefore doubled in twenty-two years. This remarkable increase was due in part to an increase in population. On the other hand, the rise in prices cannot be considered as one of the chief causes of the increase in the German national income. The general level of wholesale prices in 1891 was practically the same as in 1907, 1911 and 1913. The variations in prices in intermediate years, more particularly between 1891 and 1907, caused fluctuations in the curve of national income but did not affect its trend. This can be clearly seen if the German national income from 1891 to 1913 be converted into Reichsmarks with a fixed purchasing power.

The real income per head of the population in Germany rose by

[1] In official German statistics the preponderance of industrial occupations is partially concealed because the statistics of gainfully occupied persons include the wives of peasants whose time is divided between household duties and work in the fields. According to the 1933 census, the employed population of Germany was as follows (in thousands) :

	Men	Women	Total
Agriculture	4,694	4,649	9,343 (28.9 per cent.)
Industry	10,293	2,758	13,051 (40.4 „ „)
Commerce and transport	4,011	1,920	5,931 (18.4 „ „)
Other occupations	1,817	2,154	3 971 (12.3 „ „)
Total...	20,815	11,481	32,296 (100.0 per cent.)

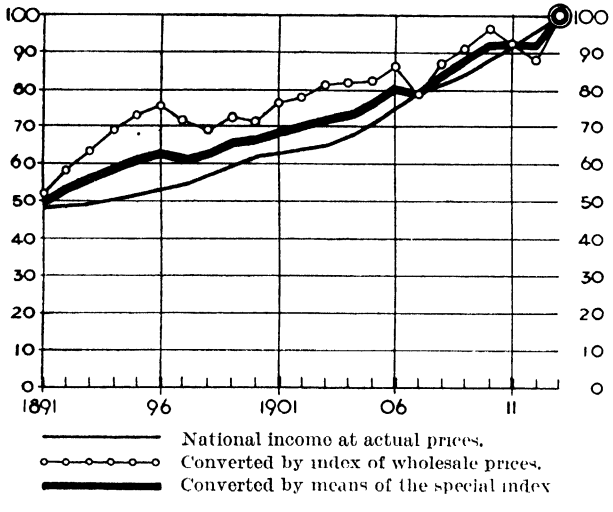
In order to make these German statistics comparable with those of other countries, the number of women employed in agriculture has been reduced to 2,347,000 in Appendix 2 (i.e.) 50 per cent. of the number of men in those occupations).

about 30 per cent. from 1891 to 1913 (cf. Appendix 9 A and diagram XV).[1]

It is interesting to compare the growth of the national income in Germany and the growth of industrial production (cf. dia-

DIAGRAM XV.—DEVELOPMENT OF NATIONAL INCOME IN GERMANY BEFORE THE WAR

(1913 = 100)



gram XVI). It is clear that the two curves in diagram XVI follow a parallel course, but it will also be noted that the curve representing the real national income does not have the same rapid rise or the somewhat jerky fluctuations of the other one. The variations in national income in Germany before the war reflect the dual movement in the economic life of the Empire: on the one hand, the tendency towards growth and expansion and on the other the cyclical fluctuations in market conditions. In both cases, the national income varied to a less marked degree than did industrial activity, which was even before the war the dynamic

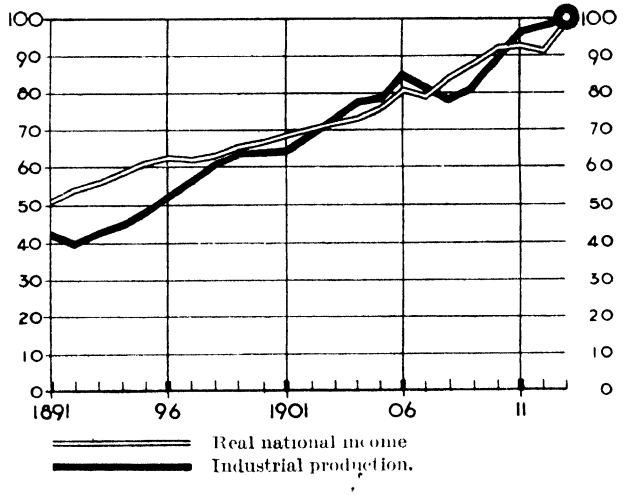
[1] The German National Statistical Office estimates the increase in real income per head of the population from 1891 to 1913 at 10 per cent. (STATISTISCHES REICHSAMT: *Das Deutsche Volkseinkommen vor und nach dem Kriege*, Einzelschriften zur Statistik des Deutschen Reiches, No. 24, Berlin, 1932, p. 68). This estimate is based on rather complex mathematical calculations which overestimate the rise in prices (or the fall in the purchasing power of the mark) from 1891 to 1913.

factor in the German economic system and at the same time the source of the disturbances in balance which periodically affected that system.

The development of the national income in Germany during the

DIAGRAM XVI.—DEVELOPMENT OF NATIONAL INCOME AND INDUSTRIAL PRODUCTION IN GERMANY BEFORE THE WAR

(1913 = 100)



recent depression was influenced by the balance of payments. After the stabilisation of its currency, Germany, which had abolished its internal debts (public and private) by inflation, had frequent recourse to foreign loans and credits, so that at the end of six years it had accumulated a sum of indebtedness of approximately 15,500 million RM. More than 8,000 millions were used for the payment of reparations and the remainder was employed in reorganising industrial and agricultural production and bringing them up to date. It is true that all the capital investment in Germany from 1924 to 1929 was not based on borrowed money, but the advances of American, Dutch, British, Swiss and other capitalists constituted an important contribution to the economic recovery of a country that had suffered severely from the war and the subsequent inflation. Thanks to the influx of foreign capital and notwithstanding the burden of reparations, the national income of Germany available for direct consumption and for

investment before the depression was greater than national output.[1]

That was one of the vulnerable points of the German economic system : the approaching economic depression was therefore likely to have particularly serious and far-reaching consequences for the national income.

We must now consider the amount and composition of the national income just before the depression. At the end of 1929 the German Business Research Institute published the following estimates (in thousands of millions of RM.) :

	1925	1926	1927	1928	1929
Private income	53.3	54.7	60.1 - 60.6	65.8 - 66.7	67.5 - 68.5
Income of public undertakingsandpublic lands	1.0	1.6	1.7 - 1.9	1.8 - 2.5	1.8 - 2.5
Total...	54.3	56.3	61.8 - 62.5	67.6 - 69.2	69.3 - 71.0

Source : Wochenbericht des Instituts fur Konjunkturforschung.

At the time certain criticisms were made of these figures, which were alleged to underestimate the income of farmers and of employers in industry and commerce.[2]

It would appear that the German official statisticians found

---

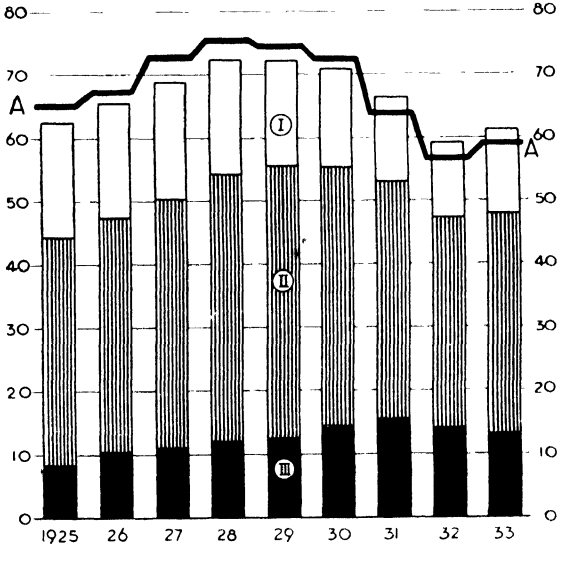
[1] German statistics make a distinction between national income *(Volkseinkommen)* and the income available for national consumption *(für Inlandszwecke verfügbares Einkommen)*. The latter is equal to the former less the amount of reparations paid. This distinction appears to be somewhat arbitrary. If reparations were paid out of the national production of the country they could have been deducted from the latter as sums not available for consumption within the country. But in that case it would have been necessary to deduct from national income other payments made abroad. The operation will be seen to be somewhat unreliable when it is remembered that reparations were covered by foreign credits and loans. There seems to be no reason for deducting from the national income of Germany sums which it borrowed in New York to cover its obligations towards Paris. What should be deducted from the German national income is the excess of the credits granted by foreign countries over the payments made by Germany abroad. The purpose of this deduction would be not to define the income available for national consumption but to make a distinction between two fractions of that income: that supplied by the economic activity of the country itself and that based on foreign credits, therefore representing the economic activity of other countries.

[2] The present writer, using statistics of consumption, estimated the German national income in 1928 as being 90,000 million RM. (Wl. Woytinsky : " Das deutsche Volkseinkommen ", in *Gewerkschaftszeitung*, Berlin, 1930, No. 3, p. 36. The explanations of the Institute will be found in *Vierteljahrshefte zur Konjunkturforschung*, Volume 4, No. 4, Part A, pp. 44 et seq., and the author's reply " Wie hoch ist das deutsche Volkseinkommen ?" in *Gewerkschaftszeitung*, 1930, No. 14, pp. 216 et seq., and " Eine Bilanz der deutschen Volkswirtschaft ", *ibid.*, No. 15, p. 232 and No. 16, p. 244). Some

these objections to be justified. They therefore increased by 60 per cent. the amount of the income of farmers and corrected other items in their calculations, so that the estimate of national income for 1928 then became 75,400 million RM. The author believes that even this figure is an underestimate. The assessment of mixed income (labour and capital) and of certain factors in income such as the rent of houses occupied by their proprietors, the fraction of the harvest consumed by farmers, etc., seem to be open to criticism. Subject to that reservation, however, the official statistics will be used below without any insistence on the changes which the present writer considers should be made (cf. Appendix 9 B and diagram XVII).

DIAGRAM XVII.—DEVELOPMENT OF NATIONAL INCOME IN GERMANY

(In thousands of millions of " 1928 RM. ")



I. Income of agriculture, industry and commerce
II. Wages and salaries.
III. Income from capital, rent and pensions.
AA National income

---

items, however, were counted twice in the author's calculations (payments to sickness insurance funds and consumption of pharmaceutical products). In addition, no account was taken of foreign credits, the existence of which gives a false picture of the structure of consumption in Germany. If all possible sources of error are eliminated and the most recent sources are used, the national income of Germany in 1928, calculated on this basis, should be estimated at 85,000 million RM.

According to the latest official estimates, the national income of Germany fluctuated as follows from 1925 to 1933 (in millions of RM.) :

	Actual prices	1928 prices [1]
1925	59,978	65,087
1926	62,673	67,332
1927	70,754	72,717
1928	75,373	75,373
1929	76,098	74,915
1930	70,165	72,320
1931	57,074	64,142
1932	45,266	56,795
1933	46,419	59,428

[1] Converted on the basis of the official cost-of-living index.

The decline in the national income in 1932 as compared with 1929 was nominally 30,800 million RM. on the basis of the actual prices, or 40.5 per cent. and actually 18,100 millions on the basis of the cost of living in 1928, being a decline of 24.2 per cent.

The loss of national income in Germany as a result of the depression is shown below in millions of " 1928 RM. " as compared with 1929 :

1930	1931	1932	1933	Total from 1930 to 1933
– 2,600	– 10,800	– 18,100	– 15,500	47,000

The decrease was very unequal in different sections of the national income. This can be seen from the fact that in 1929 the total amount of private income (including pensions) was 2,300 million RM. below the total national income, whereas in 1932 private income exceeded that total by 2,200 millions. This change can be explained by the increase in that fraction of the national income transferred to indigent persons by means of social insurance schemes. The total amount of income thus transferred was 7,000 million RM., or 9.3 per cent. in 1929 and more than 9,000 millions (with the same purchasing power), or more than 15.8 per cent. in 1932.

Of the various social groups, those who survived the depression most successfully were the capitalists, land owners and property owners, whose incomes changed as follows :

	1928	1929	1930	1931	1932	1933	Average (1930-1933)
Thousands of millions of " 1928 RM. "	3.6	4.1	4.4	4.7	4.0	3.9	4.25
As a percentage of national income	4.8	5.5	6.1	7.3	7.0	6.6	6.75

The next group is that of the farmers. The absolute value of their income fell, but the percentage of the national income which they represented increased. Their income was as follows :

	1928	1929	1930	1931	1932	1933	Average 1930-1933
Thousands of millions of " 1928 RM. " ...	5.8	5.4	5.1	4.9	4.8	5.2	5.00
As a percentage of national income	7.7	7.2	7.0	7.6	8.5	8.7	7.95

Two income groups suffered very severely from the depression : wages and salaries on the one hand, and mixed industrial and commercial incomes on the other. According to official estimates, the income of industry and commerce fell from 11,600 million RM. in 1929 to 7,500 millions with the same purchasing power in 1932 (a fall of 35 per cent.) while the amount paid in wages and salaries declined from 42,500 millions to 32,300 (24 per cent.). In reality the loss of income in those two groups was even greater. One must add to the decline in the income of industry and commerce the following losses of various companies (in thousands of millions of " 1928 RM. " as compared with 1929).

1930	1931	1932	1933	Total 1930-1933
0.5	2.0	1.4	0.7	4.6

The total amount of wages and salaries includes a variety of elements, and the stability of certain items such as the salaries of public officials must not be allowed to obscure the tremendous decrease in other items, more particularly in the wages of industrial workers. This phenomenon need not be discussed in detail here, as it is dealt with in a subsequent chapter (cf. Second Part, p. 139).

The main cause of the decrease in the national income of Germany during the depression was obviously the fall in industrial production, which decreased as follows :

	1929	1930	1931	1932	1933
Net value of industrial production in thousands of millions of " 1928 RM. "	34.1	30.6	25.1	20.8	23.5
Decrease as compared with 1929	—	3.5	9.0	13.3	10.6

The total decline in industrial production from 1930 to 1933 as compared with 1929 was thus equal to 36,400 million RM. at the

purchasing power of 1928. Agricultural production, on the other hand, did not fall during the depression; in fact its volume increased as compared with the average from 1927 to 1929. The only way in which German farmers suffered from the depression was through the fall in prices, but there was no decrease in the volume of their output.

In addition to the direct losses of industry, there was a decline in the volume of commercial and transport services. In the case of Great Britain these losses were assessed as being equivalent to 60 per cent. of the fall in industrial production; in Germany the coefficient would probably be lower; it may safely be taken to be 30 per cent.[1] We must therefore add to the direct loss of 36,400 million RM. in industry 10,900 millions representing the losses of commercial and transport services.

The total loss resulting from the fall in industrial production and in exchanges from 1930 to 1933 therefore was 47,300 million RM. at the purchasing power of 1928, which is the same amount as was estimated by the subjective method for the decline of national income.

The national income of Germany, however, must have suffered other losses in addition to those caused by the decline in the production of commodities and services. The influx of foreign capital, which not only covered reparation payments when trade was favourable but also went to stimulate the German economic system, had now come to an end. Germany's balance of payments was burdened with a number of urgent obligations (reparations, interest, and, after 1931, the partial repayment of loans). Table 7 shows the extent of these obligations and the way in which they were met.

From 1930 to 1933 Germany had to pay to foreign countries 3,000 million RM. for reparations, 3,800 millions in the form of interest and 3,300 millions for the repayment of loans, making a total of more than 10,000 millions. It was able to cover a fraction of that amount out of the surplus obtained from the exchange of services (1,500 millions) and by heavy selling of gold and foreign exchanges (more than 2,500 millions). A much more important factor, however, was the excess of exports over imports,

---

[1] This estimate is based on the ratio of the number of persons employed in industry (13.5 millions in 1925) to the number in commerce and transport (5.2 millions in 1925). It is presumed that 75 per cent. of commercial and transport services fluctuate in direct proportion to industrial production.

TABLE 7.—GERMANY'S BALANCE OF PAYMENTS DURING THE DEPRESSION

(In millions of RM.)

	1928	1929	1930	1931	1932	1933
Excess of imports (—) or exports (+) of commodities	— 1,311	— 44	+ 1,558	+ 2,778	+ 1,052	+ 669
Surplus (+) or deficit (—) on the exchange of services.[1]	+ 672	+ 712	+ 538	+ 450	+ 265	+ 232
Movement of gold and foreign exchange...	— 931	+ 165	+ 120	+ 1,653	+ 256	+ 524
Interest	— 563	— 800	— 1,000	— 1,200	— 900	— 700
Reparations	— 1,990	— 2,337	— 1,706	— 988	— 160	— 149
Total	— 4,123	— 2,304	— 490	+ 2,693	+ 513	+ 576
Movement of capital .	+ 4,123	+ 2,304	+ 490	— 2,693	— 513	— 576

[1] These figures differ considerably from those given in the statistics of commercial exchanges (table 8). The corrections were made by the German national statistical service.

Source. *Statistisches Jahrbuch für das Deutsche Reich*, 1934, pp. 506-507.

for the trade balance of Germany became favourable during the depression. This is shown in table 8 :

TABLE 8.—GERMANY'S FOREIGN TRADE DURING THE DEPRESSION [1]

	1928	1929	1930	1931	1932	1933
Special trade (commodities) :	Millions of RM.					
Imports	14,051	13,447	10,393	6,727	4,666	4,204
Exports	12,030	13,483	12,036	9,599	5,739	4,871
Excess of imports (—) or exports (+).	— 2,021	+ 36	1,643	2,872	+ 1,073	667
	Millions of RM. at 1928 prices					
Imports	14,051	13,512	12,039	10,052	9,465	9,312
Exports	12,030	13,669	12,957	11,753	8,123	7,627
Excess of imports (—) or exports (+).	— 2,021	+ 157	+ 918	+ 1,701	— 1,342	— 1,685

[1] Special trade, representing commodities only.

Source : *Statistisches Jahrbuch für das Deutsche Reich*, 1931-1934.

From 1928 to 1929 the movement of prices for imported and exported articles tended to be unfavourable to Germany : on the basis of prices for the preceding year, its exports exceeded its imports by 157 million RM. in 1929, whereas on the basis of actual prices the excess of exports was only 36 millions. During the depression, on the other hand, there was a greater fall in the prices of imported articles than in the prices of exported articles. As industrial production in Germany had declined, the country was not obliged to import the same quantities of raw materials. The consumption of imported foodstuffs and manufactured articles also fell because of the decline in the purchasing power of the population and the protectionist policy of the Government. It is therefore not surprising that German imports contracted quite appreciably (by two thirds in value and from 20 to 25 per cent. in volume). The value of Germany's exports did not fall to the same extent, and the nominal excess of exports did not represent a real excess. On the basis of the actual prices, Germany's exports from 1930 to 1933 amounted to 32,245 million RM., and its imports to 25,990 millions. The excess of exports was therefore more than 6,255 millions. But on the basis of stable (1928) prices, Germany's exports during these years were worth 40,460 million RM. and its imports 40,868 millions.

From the point of view of the real national income available for consumption in the country, the gains resulting from the divergence in prices counterbalanced in Germany the unfavourable movement in its settlements with foreign countries.

We must now consider the consequences of the decline in the national income of Germany from the point of view of the direct consumption of the population and from the point of view of investments. The latter underwent an extremely violent contraction during the depression : the official statistics show investments as being a negative figure in 1931. In 1930 various works that had been begun during the boom period were still being concluded, but during 1931 industrialists not only refrained from fresh investments but actually neglected the ordinary repair work. At the same time, stocks were gradually reduced in commerce and industry (see table 9).

Table 9 shows that in 1929 part of the national product, to a value of 4,552 million RM., was withdrawn from direct consumption and used for developing industrial plant. In 1930 and 1931, on the other hand, large sums were withdrawn from reserves and

TABLE 9.—INVESTMENTS IN GERMANY DURING THE DEPRESSION [1]

(In millions of RM.)

	1929	1930	1931
(a) Investments :			
Agriculture	79	350	— 95
Industry [2]	1,261	370	— 618
Commerce	240	125	25
Transport	682	459	— 15
Dwellings	1,684	1,204	— 79
Other investments [3]	1,688	1,135	622
Total ...	5,634	3,643	— 160
(b) Increase (+) or decrease (−) in stocks	- 1,082	— 4,094	— 5,204
Grand total ...	+ 4,552	— 451	— 5,364

[1] Some of the data are provisional.
[2] Including handicrafts, electric power stations, etc.
[3] After eliminating duplication.
Source : *Statistisches Jahrbuch für das Deutsche Reich*, 1934, p. 508.

used for direct consumption (decrease in stocks). If these sums are compared with the amount of the national income, it will be seen that the fraction of the latter which remained available for direct consumption had not decreased as compared with 1929. According to official estimates, the national income of Germany in 1929 amounted to 74,900 millions of " 1928 RM. " and in 1931 to 64,100 millions at the same purchasing power. There was therefore a reduction of 10,800 millions of " 1928 RM. " If one converts to " 1928 RM. " the sums invested in 1929 (4,552 millions) and the sums withdrawn from investment and from reserves of commodities in 1931 (5,364 millions) the total would certainly exceed 10,800 millions. It would therefore seem that the shrinkage was restricted to the field of investments during the first two years of the depression.

In 1932 investments in Germany were even more restricted than in 1931, but the fall cannot have been very great. The year 1933 brought a slight improvement in business, but it is difficult to estimate its extent even approximately.[1] In any case, the

[1] Cf. *Wochenbericht des Instituts für Konjunkturforschung*, Berlin, 1934, No. 42.

contraction in the national income in 1932 and 1933 as compared with 1931 could no longer be counterbalanced by a decrease in investments.

It was only after 1932 that there was a sharp drop in direct consumption in Germany. This conclusion is confirmed by the German statistics of production, trade and consumption, which may now be briefly examined. The following are the index numbers of industrial production in Germany (1929 = 100).

	1929	1930	1931	1932	1933
Investment goods	100	82	53	36	—
Other means of production.....	100	91	80	72	
Total production goods .	100	84	63	48	56
Consumers' goods.....	100	98	90	82	89

Source : Konjunkturstatistisches Handbuch, 1933, published by the Business Research Institute, Berlin, 1934, pp. 41-42

Although the production of direct consumers' goods in Germany fell by 2 per cent. in 1930 and by 10 per cent. in 1931 as compared with 1929, the decline in consumption was not so extensive. The country was able gradually to consume part of the stocks accumulated by industrial and commercial undertakings. This possibility explains the remarkable fact that the fall in the quantity of foodstuffs, clothing and fabrics sold by German retail traders was almost negligible until 1932 (between 4 and 5 per cent.). The following are some characteristic index figures (1928 = 100) :

	1929	1930	1931	1932	1933
Sales on the basis of actual prices :					
Foodstuffs	100	96	85	71	68
Clothing and fabrics	96	88	74	55	54
All retail trade	100	92	79	63	60
Quantities on the basis of invariable prices [1] :					
Foodstuffs	103	101	99	95	92
Clothing and fabrics	97	92	92	83	86
All retail trade	98	94	89	80	78

[1] Converted by means of the partial indices of wholesale prices which are used as a basis for the official cost-of-living index.

It would seem that the latter series gives a better picture of the fluctuations in consumption during the depression. The various branches of retail trade declined to a varying extent : the reduction in the consumption of foodstuffs was particularly small and did not become appreciable until 1932. It is, moreover, evident that the depression would naturally lead people first of all to

reduce their consumption of commodities that could easily be done without. Beer and alcohol were the first to decline.

	Consumption in thousands of hectolitres		
	Beer	Brandy	Sparkling wines
1928-29	54,556	882	14,765
1929-30	57,614	485	11,622
1930-31	48,102	447	8,140
1931-32	36,757	397	5,435
1932-33	33,326	503	5,625
1933-34	33,913	—	—

Source : Statistisches Jahrbuch fur das Deutsche Reich, 1934, p. 326 In the case of beer and sparkling wines the year is from 1 April to 31 March; in the case of brandy it is from 1 October to 30 September

The consumption of tobacco on the other hand fell only very slightly until 1931-1932.

	Consumption of tobacco			
	Cigars	Cigarettes	Pipe tobacco	Snuff
	(In millions)		(In thousands of kg.)	
1928-29	6,567	32,376	37,563	2,213
1929-30	6,934	32,885	36,995	2,152
1930-31	7,169	29,408	39,046	2,054
1931-32	6,220	28,510	32,767	1,896
1932-33	5,698	31,787	34,302	1,819
1933-34	6,573	33,692	33,434	1,755

Source : Ibid, p. 327 The year runs from 1 April to 31 March

The decline in the consumption of sugar was still less marked. It is estimated by German statistics as follows (in thousands of metric tons) :

1928-29	1929-30	1930-31	1931-32	1932-33	1933-34
1,524	1,489	1,491	1,304	1,314	1,355

The following are the statistics of the consumption of meat (in thousands of quintals) :

1929	1930	1931	1932	1933
33,105	32,406	32,940	31,725	32,072

Source : Ibid, p 324.

These statistics may be supplemented by those showing the consumption of various imported articles :

	Spices (metric tons)	Salt herring (thousands of barrels)	Coffee	Cocoa	Southern fruits	Tea
				(thousands of quintals)		
1929	8,702	1,356	1,434	767	4,960	58
1930	9,615	1,239	1,530	756	6,379	60
1931	9,304	1,292	1,556	853	5,543	53
1932	9,172	1,125	1,297	773	5,166	48
1933	10,192	995	1,273	770	5,607	49

Source : Ibid., p. 329.

All these figures would seem to confirm the conclusion drawn from a comparison of the data concerning national revenue and the figures showing the volume of investment : there was no appreciable decline in direct consumption in Germany until a quite advanced stage of the depression, and that decline was not as marked as might have been expected in view of the shrinkage of production and employment.

C.—France

In addition to possessing mines and important industries, France is highly developed agriculturally : the number of persons employed in those two sections of economic activity is approximately the same (cf. Appendix 2).

French agriculture is able to a great extent to meet the requirements of the population, and in some cases (e.g. cheese and wine) there is a surplus available for export. Generally speaking, French imports of foodstuffs exceed their exports, but in the case of the main commodity on the international market, wheat, the deficit is not great : of the 90 million quintals constituting the annual consumption of the country 80 millions can normally be supplied by home agriculture and the other 10 have to be imported from abroad.

As an importing country France is able to protect its agriculture by tariffs, but these tariffs lose their efficacity as soon as a good harvest or a fall in consumption make the home market independent of imports. This is what happened in France in 1932 and 1933 when the wheat harvest was more than 50 per cent. higher than the 1930 output. Moreover, the effectiveness of France's tariff policy is restricted by the fact that the Government can prohibit imports of articles from abroad but not of products from French colonies.

The economic structure of France is therefore such that an industrial depression was bound to bring about an agricultural depression. This spread of the depression, however, could not take place all at once, and as France was not affected by the industrial depression until comparatively late its agricultural depression also arrived at a later date than in other countries. It was only in 1933 and 1934 that it reached an acute stage.

In considering the variations of the French national income account must be taken of another special feature of the economic

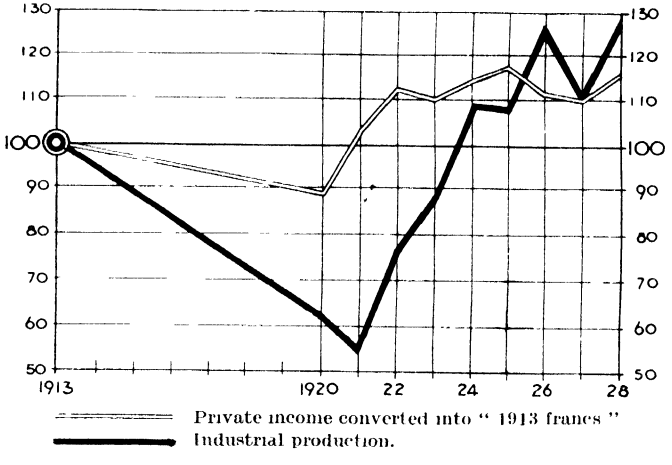
structure of the country. France has very large financial reserves, saving being highly developed, and this makes the economic life of the country very elastic.

The French statistics of national income differ from similar estimates in other countries in that they deal only with private incomes, which are added together without deducting any items that are duplicated, such as pensions or interest on the internal national debt, which are paid by the State out of taxes on other incomes.

By this method Mr. Huber has prepared a survey of French income in 1913 and from 1920 to 1928, which is reproduced in Appendix 10. The totals there given can be converted by means of the cost-of-living index into francs with pre-war purchasing power (cf. diagram XVIII).

DIAGRAM XVIII.—PRIVATE (REAL) INCOME AND INDUSTRIAL PRODUCTION IN FRANCE BEFORE THE DEPRESSION

(1913 = 100)



	Private incomes in France (Thousands of millions of francs)	(Thousands of millions of "1913 francs")	Index number in "1913 francs" 1913 = 100	Index of industrial production 1913 = 100
1913	36.0	36.0	100	100
1920	110.1	32.2	89	62
1921	114.7	37.1	103	54
1922	119.0	40.2	112	77
1923	132.4	39.6	110	87
1924	151.0	40.9	114	109
1925	168.1	42.0	117	108
1926	200.9	39.8	111	126
1927	203.4	39.6	110	110
1928	217.1	41.9	116	127

The most striking fact about the index of income as expressed in francs with an invariable purchasing power is that it remains practically unchanged from 1922 to 1928, which was a period of considerable economic ups and downs in France.

If the net value of industrial production in France in 1913 be taken as 15,000 million gold francs [1] the following numbers will be obtained for subsequent years (in thousands of millions of " 1913 francs ").

1920	1921	1922	1923	1924	1925	1926	1927	1928
9.3	8.1	11.5	13.0	16.2	15.9	18.6	16.3	19.0

The movement of private income in France does not reflect the very marked increase in industrial production after the end of the war or the decline in production in 1921, 1925 and 1927 (the last mentioned decline following the stabilisation of the franc in 1926). The influence of these variations, however, is shown in the fluctuations in income from industrial undertakings (including mines and transport), which were as follows :

	Mines, industry, transport [1]			
	Wages and salaries	Mixed income [2]	Total	Other income
	(in thousands of millions of " 1913 francs ")			
1913	6.6	4.0	10.6	25.4
1920	7.7	4.3	12.0	20.2
1921	8.0	4.4	12.4	24.7
1922	8.2	5.6	13.8	26.4
1923	8.1	5.9	14.0	25.6
1924	9.3	6.0	15.3	25.6
1925	8.7	5.6	14.3	27.7
1926	8.5	5.3	13.8	26.0
1927	8.2	4.9	13.1	26.5
1928	8.7	5.3	14.0	27.9

[1] Excluding railways.
[2] Labour and capital, industry and trade.
Source : Cf. Appendix 10 A.

The fall in nominal income in industry in 1921 [2] was counterbalanced by the fall in the cost of living during the same year. In 1926, on the other hand, nominal income in industry increased considerably (from 58,300 to 68,900 million paper francs) but this

[1] The international index of industrial production prepared by the Business Research Institute, Berlin, and adopted by the Economic Service of the League of Nations, shows French production as representing 7 per cent. of the world total. According to the author's estimates, world production in 1913 exceeded 200,000 million francs. This, of course, is merely a rough estimate.
[2] Cf. Appendix 10 A.

increase did not affect the trend of real income because of the rise in prices.

The development of private incomes in France during the recent depression has been studied by Mr. L. Dugé de Bernonville, who remained faithful to Mr. Huber's method and arrived at the following figures (in thousands of millions of francs) :

1926	1927	1928	1929	1930	1931	1932
208	210	227	245	243	228	206

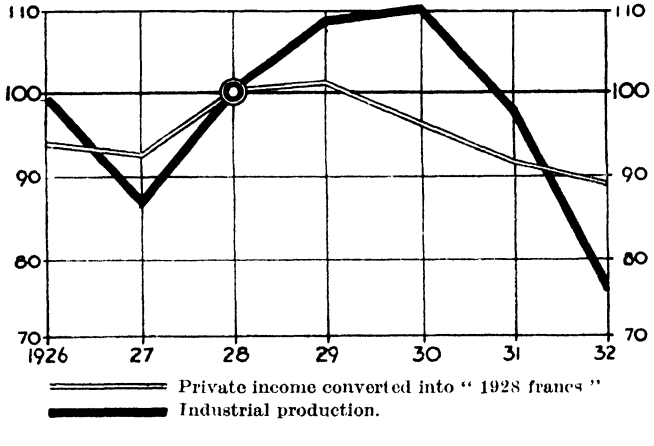
The general trend of the fluctuations (cf. Appendix 10 B) in these totals corresponds to the changes in the business cycle : a gradual improvement until 1929, cessation of the upward movement in 1930 and a decline in 1931 and 1932.

If the above series be converted into " 1928 francs " it will be found that the fall in incomes in France during the depression was not excessive (cf. diagram XIX) :

	1926	1927	1928	1929	1930	1931	1932
In thousands of millions of " 1928 francs "	214	212	227	229	217	209	203
Index (1928 = 100)	94	93	100	101	96	·92	89

DIAGRAM XIX.—PRIVATE (REAL) INCOME AND INDUSTRIAL PRODUCTION IN FRANCE DURING THE DEPRESSION

(1913 = 100)



The detailed examination of the distribution of income losses may begin with the variations in wages and salaries. The amount of these, if converted into francs with an invariable purchasing

power, remains surprisingly stable (in thousands of millions of "1928 francs"):

1928	1929	1930	1931	1932
103.0	108.0	109.2	106.8	106.2

This stability is due in part to the fact that the total amount of wages and salaries contains various factors, the fluctuations of which during the depression were governed by conflicting tendencies. The loss of income of workers and salaried employees in industry and commerce was considerable, but various other occupational groups were only slightly affected by unemployment and were able to profit by the relative fall in the cost of living.

A similar divergence can be found in the variations in the return on capital: income from stocks and shares was affected by the depression, at least in 1932, whereas the real value of income from house property increased as prices fell. The income from capital, expressed in thousands of millions of "1928 francs", varied as ollows:

	1928	1929	1930	1931	1932
Stocks and shares ...	26.8	26.4	25.7	25.7	22.3
House property	11.0	11.2	11.9	12.8	13.8

Mixed income would seem to have suffered more from the depression. The figures are as follows, in thousands of millions of "1928 francs":

	1928	1929	1930	1931	1932
Agriculture	43.1	41.8	31.5	28.0	26.2
Industry and trade ..	29.5	27.1	23.9	19.1	16.8

These last figures, however, are the least accurate of any in the estimates of private income in France. Agricultural incomes have been assessed by a somewhat arbitrary method—to which reference will be made in the second part of this volume—and the assessment of income in industry and trade is based on information concerning schedule taxes published by the Department of Direct Taxation. It is difficult, however, for the tax authorities to keep a check on mixed income, and it is extremely probable that during the depression taxpayers were inclined to be unduly pessimistic when making their returns.

The total amount of private income in France must now be compared with the loss of national production. The decrease in the latter consisted mainly in the losses of industrial production

and of commercial and transport services. For every hundred persons actively engaged in industry and every hundred working in agriculture in France, there are only fifty persons engaged in commerce and transport.[1] If we assume that commercial and transport services are divided more or less equally between industrial products and agricultural produce, we may estimate the value of the distribution services in France at 25 per cent. of the value of industrial production, so that the total losses could be determined from the following figures :

	1929	1930	1931	1932
Index of industrial production (1928 = 100)	110	114	98	76
	(in thousands of millions of " 1928 francs ")			
Net value of industrial production	120	124	107	83
Commercial and transport services	30.0	31.0	26.7	20.7
Total...	150.0	155.0	133.7	103.7

According to these figures, national production in France increased until 1930 and the subsequent losses as compared with that year amounted to 21,300 million " 1928 francs " in 1931, and 51,300 millions in 1932, making a total of 72,600 millions for the two years together. These results do not correspond with the fluctuations in private income.[2] In 1930 there was a decline in private income of 12,000 million " 1928 francs ", for which there is no apparent justification in the development of industrial and commercial activity in the country. In 1932, on the other hand, the losses of industry, trade and transport considerably exceeded the decline in private income.

The discrepancy between the two series in 1930 (+ 5,000 millions of " 1928 francs " according to the volume of production and —12,000 millions according to tax returns) can be explained easily. Real income in thousands of millions of " 1928 francs " fluctuated as follows from 1929 to 1930 :

	1929	1930	Variations
Wages and salaries	108.0	109.2	+ 1.2
Income from capital	37.6	37.6	—
Pensions	10.5	10.9	+ 0.4
Mixed incomes	72.9	59.2	— 13.7

[1] Cf. Appendix 2.
[2] Cf. Diagram XVIII, p. 97.

The decrease was therefore restricted to mixed income. Incomes in this group are assessed on the basis of taxpayers' returns for 1931 and it may be presumed that the taxpayers declared in 1930 the losses that they—quite rightly—anticipated for the current year 1931.

Even if this explanation is accepted it still remains true that the movement of private incomes in France from 1930 to 1932 differs appreciably from the variations in national output. This divergence is due to a phenomenon similar to that noted in connection with Great Britain : the divergence of prices on the world market enabled France to shift part of the burden of its industrial losses on to foreign countries (cf. table 10).

TABLE 10.—FRENCH IMPORTS AND EXPORTS DURING THE DEPRESSION

	1929	1930	1931	1932	1933
	In thousands of millions of francs at actual prices				
Imports	58.2	52.5	42.2	29.8	28.4
Exports	51.1	42.8	30.4	19.7	18.4
Excess of imports	7.1	9.7	11.8	10.1	10.0
	In thousands of millions of francs at 1929 prices				
Imports	58.2	62.5	62.1	51.4	53.6
Exports	51.1	44.6	38.5	29.4	29.7
Excess of imports	7.1	17.9	23.6	22.0	23.9

Source : Bulletin de la statistique générale de la France, Vol. XXIII, No. I, p. 69.

In addition to the visible excess of imports which rendered its balance of payments unfavourable (7,100 million francs in 1929, 9,700 millions in 1930, etc.), France was thus able during the depression to obtain an invisible surplus of imports for which no payment was made, and which is represented by the difference between the excess of imports calculated on the basis of invariable prices (" 1929 francs ") and the official figure based on actual prices. This difference is as follows, in thousands of millions of " 1929 francs " :

1930	1931	1932	1933
8.2	11.8	11.9	13.9

For the three years 1930-1932 the total amount of these gains from the depression in France was 32,000 million " 1929 francs " or 30,000 million " 1928 francs ", being several thousand millions more than the discrepancy that existed between the losses on national production and the decline in private income. The problem is therefore different from what it at first seemed to be : the decrease in declared income is greater than the presumed decline in the income available for consumption in the country.

This divergence gains in importance from the fact that the sum of all private incomes is not equal to the national income of the country. The example of Germany showed that the national income tends to contract more violently during the depression than the sum of private incomes. The difference between the two is caused by the fact that no dividend is distributed by certain joint stock companies or public undertakings and by the fact that there is an increase in the income transferred by means of public relief funds and by the service of the internal debt. French statistics do not provide any data on which one can assess the divergence between national income and the sum of private incomes.

There is one other source of loss that must be referred to. Income in France in the form of interest and dividends on capital invested abroad and in the form of reparations payments decreased tremendously during the depression : the total loss for the three years from 1930-1932 as compared with 1929 exceeded 20,000 millions of " 1928 francs ". A large part of this sum does not appear in the national income and is concealed by movements of capital, that is, by fluctuations in the—more or less theoretical—assets of the State and credit establishments. In other words, the decrease in national income must have been greater than the shrinkage in national output.

At the same time, mention must be made once again of the main source of statistical errors in the assessment of income, which is that income tax returns are more or less subjective in character.

No statistics are available to show the distribution of the loss of national income in France between investments on the one hand and direct consumption on the other. In any case, the industries for investment goods, particularly the building industry, in France did not suffer from the depression to the same extent as they did

in Germany, for instance, or in the United States. The decrease in 1932 as a percentage of the 1929 figure was as follows :

	In France Per cent.	In Germany Per cent.	In the United States Per cent.
Production of cast iron	— 47	— 70	— 75
Production of steel	— 42	— 64	— 76
Mechanical engineering	— 39	— 62	— 87
Building activity	— 19	— 75	— 80

Notwithstanding the decline in industrial investment, the volume of public issues of shares on the French market remained quite high during the depression. It may be estimated as follows (in thousands of millions of francs) :

	1929	1930	1931	1932	1933
French companies [1]	14.7	20.5	14.2	5.3	3.2
Railways	4.1	4.9	6.2	6.9	6.2
National, municipal and departmental issues and colonial issues [2]	3.3	5.1	8.2	5.2	2.7
Long-term Government loans ..	0.6	-	—	9.3	12.8
Total...	22.7	30.5	28.6	26.8	25.0
Deduct sums refunded	2.9	9.8	13.9	2.6	2.5
New issues.....	19.8	20.7	14.7	24.2	22.5

[1] Shares and bonds.
[2] Including settlement schemes for disabled men.

Source : Bulletin de la statistique générale de la France et du Service d'observation des prix, April-June 1934, p. 115.

TABLE 11.—CONSUMPTION IN FRANCE

	1928	1929	1930	1931	1932	1933
Butcher meat, kg. per inhabitant..	25.9	26.1	24.6	20.4	22.7	24.5
Sugar, „ „ ...	21.5	23.4	21.6	23.1	22.9	—
Wine, lit. per inhabitant..	171	183	137	177	149	162
Beer, „ „ ...	31.2	33.6	35.1	35.1	33.7	—
Taxable alcohol, lit. per inhabitant..	265	276	287	282	201	-
Tobacco, kg. per inhabitant..	129	134	135	134	131	-
Tea, „ „ ...	36	38	35	38	35	44
Coffee, „ „ ...	4.0	4.1	4.3	4.6	4.5	4.7
Cocoa, „ „ ...	83	87	89	97	105	100

Source : Statistique générale de la France, Annuaire statistique, 1933, Paris, 1934, pp. 178-185.

Large sums were, moreover, withdrawn from consumption and hoarded.[1] On the other hand, the decline in direct consumption as a result of the depression was checked in France because of the considerable reserves available. Table 11 shows that the decrease in consumption in France was not very violent and was confined to a few articles.

D.—United States of America

With a national income of from 80,000 to 90,000 million dollars a year, the United States were richer on the eve of the depression than all the European countries taken together. Estimates of this kind naturally cannot be accurate, but there are grounds for asserting that at that time the sum of the incomes of the citizens of the United States constituted approximately half the income of the world.

It is obvious that a sudden restriction of such an important section of world income would be bound to endanger the unstable equilibrium of the world economic system and have disastrous effects on all countries that were in economic relations with the United States. The shock would certainly have been even more violent if the United States had taken as large a part in international exchanges as they did in world production. Such, however, was not the case, for although the country had concentrated more than 44 per cent. of the industrial production of the world within its territory its share in international trade before the depression was only 14 per cent.

As a result of the abundance and diversity of the natural resources of the country, most of the requirements of United States' industry can be satisfied by national production. The demand for raw materials from abroad is practically restricted to natural silk, tobacco, furs and skins, rubber, woodpulp and crude petroleum. In the United States more agricultural commodities are produced than can be consumed, and it is agriculture more than industry that requires foreign markets, for industry has a magnificent home market.

Although foreign trade is of secondary importance in this country, internal trade and transport are very extensive and important. The country is essentially a commercial one, but it

---

[1] Cf. p. 281.

differs from Great Britain in that its trade does not involve relationships with foreign countries but above all the development of exchanges between different parts of the United States.

This peculiarity of the economic structure of the United States determined the nature of the variations in income during the depression. The depression did not spread from a single centre as in Great Britain or Germany, but rather from three separate centres : industrial production, agriculture and commerce.

Several estimates have been made of the national income of the United States from 1910 to 1919.[1] After the War most of the investigations into national income were carried out by the National Bureau of Economic Research in New York (by W. I. King, O. W. Knauth and S. Kuznets). The estimates made by the Bureau for the period 1918 to 1927 were analysed by Mr. A. Copeland in a study which is included in the report on *Recent Economic Changes in the United States*.[2]

The development of the national income in the United States from 1918 to 1927 is shown by a number of statistical series accompanied by comparable data for the years 1913 and 1914. The total realised income of the country is taken in the widest sense, including :

" (1) all pay rolls (including value of board and lodging furnished). (2) pensions, benefits, and compensation for accidents received by employees and ex-employees, (3) net rent (including both cash and payments in kind, less maintenance and depreciation), royalties, interest, and dividends received by individuals, (4) profits withdrawn from businesses by individual enterprisers, (5) the net rental value of owned homes and imputed interest on investment in other durable consumption goods, (6) the value of certain commodities produced by families for their own consumption. It does not include paper profits, profits from the sale of capital assets, or the value of housewives' services. "

If we leave out items (5) and (6) from the total realised income we get the national money income. In order to measure the real national income and exclude the influence of price variations, Mr. Copeland employs a special cost-of-living index which takes into account the changes in the purchasing power of the currency unit for various social groups (farmers, farm employees, urban

[1] Mention may be made of the researches of W. I. King, B. M. Anderson. J. Stamp, W. R. Ingalis and D. Friday.

[2] *Report of the Committee on Recent Economic Changes, of the President's Conference on Unemployment* (Herbert HOOVER, Chairman), Volume II, New York 1929, pp. 757 to 839.

employees, the middle classes and persons whose family expenditure in 1919 amounted to $25,000). If the real national income in the United States be compared with the volume of industrial production, it will be found that fluctuations from 1913 to 1927 run more or less parallel with those of national production, but are less irregular (cf. table 12 and diagram XX).

TABLE 12.—CHANGES IN THE NATIONAL INCOME OF THE UNITED STATES FROM 1913 TO 1927

	1913	1914	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
	In thousands of millions of dollars											
Realised income.	35.7	35.6	60.4	65.9	74.0	63.4	65.9	74.3	77.1	81.9	85.7	87.5
Money income ..	35.1	31.3	51.9	57.2	65.5	55.8	59.0	67.1	69.6	74.3	77.9	79.7
	In thousands of millions of " 1925 dollars "											
National income	60.3	59.5	67.9	64.2	63.9	62.4	68.6	75.7	79.1	81.9	85.3	
	Index numbers (1913 = 100)											
National income in " 1925 dollars "	100	99	113	106	106	103	114	126	130	136	140	
Industrial production	100	99	116	114	121	97	117	132	127	137	142	141
	Distribution of realised national income in percentage											
Labour income ..	53	52	54	54	57	57	57	58	58	57	59	59
Property income.	25	25	22	22	22	25	24	23	23	23	23	
Entrepreneurial income	22	23	24	24	21	18	19	19	19	20	19	

Source : Recent Economic Changes in the United States, Vol. II, pp. 763 and 769.

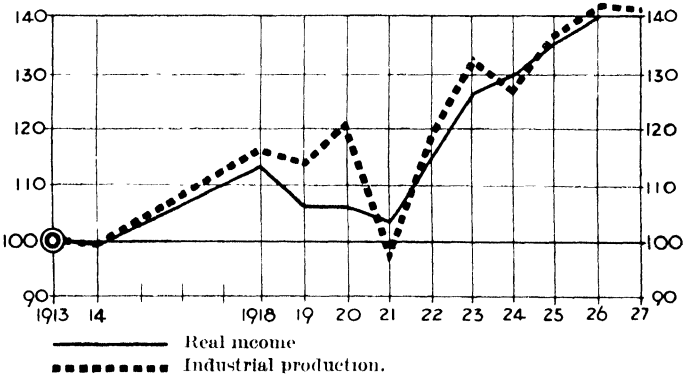
It will be seen that there were signs of prosperity in practically every section of the American national income : as production steadily increased there was an increase in the share earned by every class of society. Labour was not forgotten in the general improvement, and the increase in its share would even seem to have exceeded that of interest and profits. It must be remembered, however, that the share obtained by labour, as shown by the United States statistics, includes not only the earnings of workers and of salaried employees in the stricter sense but

also the sums retained for themselves by heads of undertakings as remuneration for the management of business. The remuneration in question, although apparently equivalent to salary, really represents an important fraction of profits, being that part that is usually deducted by capitalists from the receipts of an undertaking before dividends are distributed. The relative stability of this fraction of so-called labour income would seem to have been one of the reasons for the increase in the share of the national income received by workers during the depression in 1921.

In view of the indefinite nature of the distinctions between various forms of income, it is impossible to conclude from table 12

DIAGRAM XX.—NATIONAL INCOME AND INDUSTRIAL PRODUCTION IN THE UNITED STATES

(1913 = 100)



that there was any appreciable change in the social distribution of income in the United States from 1913 to 1926. The distribution of income over the various branches of the economic system, on the other hand, reveals certain obvious and important changes. The most marked is the decrease in the share received by agriculture, which fell from 14 per cent. in 1913 to 10.4 per cent. in 1926.[1] This development corresponds to the change in the distribution of the population by occupations: in 1910 agricultural production provided employment for 33.1 per cent. of the working population of the United States, for 26.3 per cent. in 1920 and for only 22 per cent. in 1930.

[1] *Recent Economic Changes in the United States*, Volume II, p. 775.

The share of industry (including mines and building) in the national income remained practically the same : 28 per cent. in 1913 and 27.8 in 1926. There was a slight fall in the share of transport and communications, from 9 per cent. to 8.5 per cent. Important variations may be observed in the shares of commerce (increase from 12.6 to 14.6 per cent.) and of Government (increase from 5.6 to 7.7 per cent.). The difference between the gradual development of the national income of the United States from 1913 to 1927 and its hectic fluctuations after 1929 is most striking. There are unfortunately no statistical series covering the two periods uninterruptedly. Leaving aside the estimates of Mr. W. I. King, which supplement the series examined above, we may pass on to the report submitted to Congress in 1934 on the subject of the changes in the national income of the United States from 1929 to 1932.[1]

The method adopted by the authors of this report differs from that followed in previous estimates. Six groups of services and earnings are excluded from the estimates. These are :

(a) Services of housewives and other members of the family ;
(b) Services of owned durable goods, such as houses, automobiles, furniture, etc. ;
(c) Earnings from odd jobs;
(d) Relief and charity;
(e) Changes in the value of assets;
(f) Earnings from illegal pursuits.[2]

The exclusion of the services of housewives and other members of the family seems reasonable, but it will be agreed that the authors of the report are justified in pointing out that :

" This omission lowers the value of national income measurements as indexes of the nation's productivity in conditions of recent years when the contraction of the market economy was accompanied by an expansion of activity within the family. "

On the other hand, there may be objections to the omission of the services of certain owned durable goods : surely the rent of

---

[1] The research work in preparation for that report was carried out under the direction of Mr. S. Kuznets of the National Bureau of Economic Research, New York, who was also responsible for the text of the report. The work was carried out in collaboration between the National Bureau, the Division of Economic Research and Bureau of Foreign and Domestic Commerce. The report is entitled *National Income, 1929-32*, and is published as No. 124 of the documents of the Second Session of the Seventy-third Congress, 1934.

[2] *National Income, 1929-32*, pp. 4-5.

houses occupied by their owners ought to be included in the income of the latter.

The authors' reservations concerning earnings from odd jobs, relief and charity and earnings from illegal pursuits will not give rise to any objections. The most important point is undoubtedly the omission of gains resulting from changes in the value of assets. During the period covered by the report this was a negative item, as it included the losses of companies and private individuals as a result of the depreciation of house property, undertakings, movable property and stocks of commodities. The report states :

" The inclusion of gains and losses yielded by changes in asset values would . . . be either a duplication, since it would amount to counting both the change in the net income and the change in capitalisation of that income, or a distortion of the national income estimate as a measure of the economic system's end-product. " [1]

Further considerations can be added to these arguments. During the recent depression the depreciation of capital in the United States was so extensive that the value of the capital lost was sometimes equal to or even greater than the national income of the country. It is obvious that a negative balance or a figure approaching zero would not represent either national production or national income.

The authors of the report make a distinction between " national income produced " and " national income paid out ". National income paid out is taken to be the sum of private incomes in cash or in kind, whereas the national income produced includes in addition the savings of business establishments.[2] During the depression the savings of business establishments were decreasing. They therefore constitute a negative item in the accounts, so that the contraction of the national income paid out is less than that of the national income produced.

The variations in the savings of an undertaking cannot always be measured by objective data. They generally represent an accounting operation based on the view taken by heads of the undertaking as to the financial situation of the undertaking and the probable trend of business in the near future. The expe-

[1] *National Income, 1929-32*, p. 5.

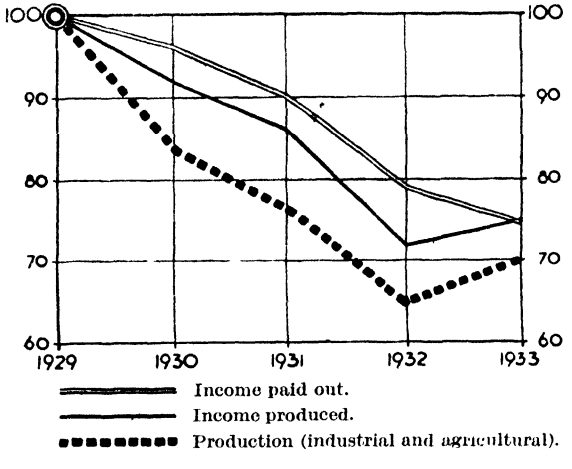
[2] It would seem doubtful whether the line of demarcation between the savings of business establishments and the capital of these establishments can always be drawn with sufficient accuracy (cf. pp. 289-290.)

rience of the 1921 depression (cf. table 12, p. 107) suggests the conclusion that the heads of undertakings are in no great hurry to indicate in their balance-sheets the losses resulting from a decline in orders. The decrease of 20 per cent. in production was accompanied by a fall of only 3 per cent. in national income in 1921. One would therefore expect to observe the same phenomenon at the beginning of the recent depression. During a certain period, indeed, while public opinion did not yet realise the change that was taking place in the business cycle and was still expecting an early revival of business, the depression was only faintly reflected in the statistics of national income.

The distinction between national income paid out and national income produced leads the authors of the enquiry to make a proposal which the present writer considers both ingenious and valuable. In order to eliminate the influence of price variations and be able to express national income in terms of dollars with

DIAGRAM XXI.—NATIONAL INCOME OF THE UNITED STATES DURING THE DEPRESSION

(1929 = 100)



a fixed purchasing power, they suggest applying the cost-of-living index to national income paid out and the wholesale price index to national income produced.[1]

[1] For the period before the depression this distinction is not of the same importance as for the years 1929 to 1932. The realised national income as assessed by Mr. W. I. King and others (cf. table 12) corresponds rather to the national income produced in Mr. Kuznets' terminology, but it contains

According to these estimates, the national income paid out and the national income produced in the United States varied as follows (in millions of dollars) :

	1929	1930	1931	1932
National income paid out	81,136	75,410	63,247	48,894
National income produced	83,032	70,345	54,643	39,365

Source : National Income, 1929-1932, p. 10.

Important corrections were subsequently made in the above figures. According to the most recent estimates, published in the *Survey of Current Business* of the Department of Commerce, the national income of the United States may be assessed as follows (in millions of dollars) :

	1929	1930	1931	1932	1933	1934
National income paid out [1]	78,632	72,932	61,704	48,362	44,940	50,189
National income produced ...	81,034	67,917	53,584	39,545	41,889	48,561

[1] This series, published in November 1935, differs slightly from the official estimates published in August and reproduced in Appendix 11.

Source : " The National Income Produced, 1929-34 ", *Survey of Current Business*, November 1935, p. 17.

The national income of the United States may thus be calculated in dollars with a fixed purchasing power by means of the method already described.

	1929	1930	1931	1932	1933
	In millions of " 1928 dollars "				
National income paid out	78,632	75,655	70,680	61,529	58,899
National income produced	81,034	74,881	69,953	58,154	60,446
	Index numbers (1929 = 100)				
National income paid out	100	96	89	77	75
National income produced	100	92	86	74	75
Production (agriculture and industry)	100	84	77	65	(70)

certain items that are not reproduced in more recent estimates, as, for example, the rent of dwelling houses occupied by their owners. Consequently, the particulars given below are not comparable with the results of previous estimates. But there is no reason why the trends of these statistical series should not be compared with each other.

Notwithstanding the reservations that must be made concerning the approximate and summary character of these calculations, it will be noticed that the curves of income diverged from the curve of production during the last depression in the same direction as in 1921. In both cases the variations in income were less than the changes in the volume of production. It would appear that in 1933 the volume of the national income had more or less adjusted itself to the volume of material production, but for that year the estimates of national income in " 1929 dollars " are not really typical because of the conflicting tendencies in the movement of prices (rise of wholesale prices and fall in the cost of living) during 1933.

The national income paid out was distributed as follows over the various forms of income (cf. table 13) :

TABLE 13.—DISTRIBUTION OF NATIONAL INCOME IN THE UNITED STATES OVER VARIOUS FORMS OF INCOME.

Type of income	Millions of dollars					Percentages of 1929			
	1929	1930	1931	1932	1933	1930	1931	1932	1933
Salaries (selected industries) [1]	5,664	5,551	4,606	3,387	2,997	98	81	60	53
Wages (selected industries) [1]	17,197	14,251	10,608	7,017	7,189	83	62	41	42
Salaries or wages (all other industries)	27,291	26,052	23,148	19,141	17,325	96	85	70	64
Total labour income [2]	51,088	46,844	39,444	30,643	29,121	93	78	61	57
Dividends	5,963	5,794	4,312	2,749	2,042	97	72	46	34
Interest	5,104	5,310	5,228	5,048	4,569	104	102	99	90
Net rents and royalties	3,432	2,763	1,847	1,153	950	81	54	34	28
Entrepreneurial profits	12,424	11,647	10,066	7,979	7,365	94	81	64	59
Total income paid out. [3]	78,576	72,973	61,433	47,964	44,431	93	78	61	57

[1] Including mining, manufacturing, construction, steam railroads, Pullman, railway express and water transportation.
[2] Including employees' pensions, compensation for injury and the wages paid on public works in 1933 (637 million dollars).
[3] Including the net balance of the international flow of property incomes.

Source : Survey of Current Business, August 1935, p. 16. The totals differ slightly from those on the preceding page.

If the income for 1932 is converted by means of the cost-of-living index into " 1929 dollars " the fall in the various forms of income may be assessed as follows :

	Variation from 1929 to 1932	
	In millions of " 1929 dollars "	Per cent.
Salaries (selected industries)	— 1,360	— 23
Wages (selected industries)	— 8,270	— 48
Salaries or wages (all other industries)	— 2,940	— 11
Total labour income	— 13,100	— 22
Dividends	— 1,490	— 41
Interest	+ 1,320	+ 26
Net rents and royalties	— 1,970	— 57
Entrepreneurial profits	— 2,270	— 19
Total income paid out	— 17,550	— 22

These figures clearly bring out the characteristic trend of the various forms of national income : an extensive fall in wages in industry and transport (48 per cent.), in dividends and in rent and royalties (41 and 57 per cent.); a less marked fall in the salaries of industrial employees (23 per cent.), in entrepreneurial profits (19 per cent.) and in the wages and salaries in non-industrial occupations (11 per cent.), this latter group including the salaries of public officials. The most striking feature in the development of income in the United States during the depression is undoubtedly the absolute increase (26 per cent.) in the real value of interest.

The distribution of income over the various sections of the economic system is shown in Appendix 11.

The most extensive losses in income paid out were in industry. Converted into " 1929 dollars " the income distributed in industry (including mines and building) fell from 23,350 million dollars in 1929 to 13,110 million dollars in 1932, being a fall of 44 per cent. The income paid out in agriculture during the same period fell from 6,160 millions to 4,060, or by 34 per cent.

The decline in the income paid out in production and other branches of the economic system was as follows (in millions of " 1929 dollars ") [1] :

	1929	1932	Decrease
Production	38,800	18,800	12,000
Commerce and transport	18,000	14,800	3,200
Credit	8,400	6,300	2,100
Other services	21,400	21,200	200

[1] These are the corrected estimates (See Appendix 11).

The distribution of the losses over the various sections of the economic system appears still more uneven if we consider the income produced as defined above. If the wholesale price index is applied to the data for 1932 the following figures will represent the income produced in the various sections of the economic system (in millions of " 1929 dollars "):

	1929	1932	Decrease (—) or increase (+)	Per cent.
Agriculture	7,159	3,434	— 3,725	(— 52)
Industry [1]	24,427	9,952	— 14,475	(— 58)
Total	31,586	13,386	— 18,200	(— 58)
Commerce	10,955	7,726	— 3,229	(— 30)
Transport	7,216	5,530	— 1,686	(— 23)
Credit	8,219	6,412	— 1,807	(— 22)
Total	26,390	19,668	— 6,722	(— 26)
Public services [2]	2,318	2,543	+ 225	(+ 9.7)
Administration	6,805	10,512	+ 3,707	(+ 54)
Private and miscellaneous services	13,935	12,047	— 1,888	(— 13)
Total	23,058	25,102	+ 2,044	(+ 8.9)
Grand total	81,034	58,156	— 22,878	(— 28)

[1] Including mining and building.
[2] Electricity and gas; postal, telegraph and telephone services.

There are therefore three sections, each with its own peculiar trend during the depression:

1. Production, in which the income produced fell by more than half.

2. Commerce, transport and credit, in which the income produced declined to about the same extent as the national income.

3. All the other services, in which real income shows not only a relative but often an absolute increase, notwithstanding the impoverishment of the country as a whole.

We must now consider what was the origin of the decrease in the national income of the United States. It is obvious that the fall in the real income of the country was caused by the decrease in the national production of goods and services. There was, however, no appreciable shrinkage in agricultural production in the United States until 1933. As was pointed out above, the

agricultural depression in the United States, which is reflected in a fall in the income of farmers, took the form of a slump in prices which affected agriculture all the more severely because it had not profited to the same extent as industry during the period of prosperity.

In the industrial branch the depression showed itself mainly in a contraction in production, the fall in prices being less violent than in agriculture.

In order to assess the absolute loss of national production in the United States during the depression one must add the losses in goods and the losses in services. In the case of agriculture and industry (including mines and building) the income produced in 1929 may be taken as a starting point. The real value of production in the subsequent period will then be shown by the following index numbers (1929 = 100):

	1929	1930	1931	1932
Agriculture [1]	100	96	104	102
Mining and manufacturing industries [2]	100	80	68	53
Building [3]	100	90	70	33

[1] Index of the gross income from agricultural production at 1929 prices (*National Income, 1929-1932*, p. 49).
[2] Index of industrial and mining production.
[3] Index of the total volume of contract construction at 1929 building costs (*National Income, 1929-1932*, p. 84).

Consequently the value of the goods produced developed as follows (in millions of " 1929 dollars "):

	1929	1930	1931	1932
Agriculture	7,159	7,130	7,188	7,173
Mining and manufacturing industries	21,202	16,962	14,417	11,237
Building	3,225	2,902	2,257	1,064
Total	31,586	26,994	23,862	19,474
Loss as compared with 1929	—	4,592	7,724	12,112

The income produced in 1929 by commercial, transport and credit services was 26,390 million dollars, or 84 per cent. of the income produced in the producing branch as a whole. If the same proportion existed in subsequent years the following figures can be given (in millions of " 1929 dollars "):

	1929	1930	1931	1932
Commercial, transport and credit services	26,390	22,675	20,044	16,358
Losses as compared with 1929	—	3,715	6,346	10,032

The value of other services may be assessed in accordance with the number of fully employed persons; this method is based on the assumption that the decline in the productivity of labour in certain occupations was made good by technical progress, by the selection of the staff retained in the undertakings, etc.

The number of persons employed in services other than distribution in the United States developed as follows (in thousands):

	1929	1930	1931	1932
Public services	869	864	771	685
Public administration	3,003	3,156	3,127	3,122
Private and miscellaneous services	8,483	8,042	7,325	6,568
Total	12,355	12,062	11,223	10,375
Index number (1929 = 100)	100	98	91	84

The income produced by the services in question in 1929 amounted to 23,057 million dollars. During the depression, therefore, it was probably as follows (in millions of "1929 dollars"):

	1929	1930	1931	1932
Services (other than commerce and transport)	23,058	22,597	20,983	19,369
Losses as compared with 1929	–	461	2,075	3,689

The following will then be the total losses of the United States in goods and services as compared with 1929 (in millions of "1929 dollars"):

	1930	1931	1932
Production	4,592	7,724	12,112
Commerce, transport and credit	3,715	6,346	10,032
Other services	461	2,075	3,689
Total	8,768	16,145	25,833

In order to determine what fraction of these losses the United States were able to transfer to foreign countries as a result of the divergence between the prices of imported and exported goods, it is necessary to examine the statistics of commercial exchanges of the country (cf. table 3, p. 67), from which it is clear that the gains from this source were negligible. Consequently, the losses on national production in the United States were reflected almost in their entirety in a fall in national income. During the first phase of the depression, however, a fraction of the losses in production was concealed by the utilisation of the available reserves. It was only in 1932 that these reserves were apparently

exhausted; at that date the fall in income produced, according to official figures, almost caught up with the loss of national production as estimated by the present writer.

	Losses as compared with 1929 in millions of " 1929 dollars "		
	1930	1931	1932
National production (estimated by the author)	8,768	16,145	25,833
Income produced (official estimate)	6,153	11,081	22,878

In 1932 the two sets of figures approximately balanced each other. The distribution of the losses during that year over the various sections of the economic system may therefore be examined :

	Variations from 1929 to 1932 in millions of " 1929 dollars "	
	Production (goods and services)	Income produced
Agriculture	+ 14	— 3,725
Mining and manufacturing industries	— 9,965	— 12,236
Building	— 2,161	— 2,240
Production...	— 12,112	— 18,200
Commerce and transport	— 6,908	— 4,915
Credit	— 3,124	— 1,807
Distribution...	— 10,032	— 6,722
Public services, administration and private and miscellaneous services	3,689	+ 2,044
Grand total...	— 25,833	— 22,878

It must be pointed out once again that no insistence is made on the accuracy of the two sets of figures. All that is of importance is their general trend and the striking divergence between the loss of production and the loss of national income.

The real losses in goods and services consist mainly in three factors : the shrinkage of industrial production (12,100 million "1929 dollars", including building), the decline in distribution services (which the author estimates at 10,000 millions, but the estimate may be rather high) and the decline in other services (which reveals itself in unemployment and which has been estimated at 3,700 millions).

The distribution of the losses over the three main sections of the economic system was greatly modified by the difference in the degree of variability of various incomes on the one hand and by the divergence in prices on the other.

The section of services (other than commerce and transport)

shifted the burden of its losses on to the other sections of the national economic system. Notwithstanding the decrease in the volume of services rendered, this section had a larger income produced than in 1929 The losses of the economic sections with a variable income therefore increased by 5,700 million " 1929 dollars " in round figures.

Similarly the loss of income of the distribution section was not in proportion to the decrease in services rendered. In the case of credit this discrepancy may be due to inaccuracy in the calculations, but in the case of commerce and transport there is no possibility of doubt : the decline in revenue produced was nearly 2,000 million " 1929 dollars " less than the decrease in services rendered.

It was therefore that section of the economic system engaged in the production of goods that had to bear the losses incurred in other sections. One must add to the direct loss of production (12,100 millions) the losses transferred from the section of services (over 6,000 millions), 40 per cent. of which fell on industry (including building) and 60 per cent. on agriculture. This accumulation of losses in the producing section would seem to have made it more difficult for the United States to overcome the depression.

E.—Japan

During the last half century Japan has tenaciously carried out its work of industrialisation. Notwithstanding all the political and economic vicissitudes of the world, the economic progress made after the war and before the world depression was particularly remarkable.[1] In spite of this industrial expansion, however, Japan is still essentially an agricultural country (cf. Appendix II). The majority of the population depend for their existence on agriculture, that is, on the harvest and the movements of agricultural prices.

The depression had had serious consequences for the country in two directions : the decline in world trade injured its exports, and the fall in prices ruined its farmers. It is true that the depression in Japan led also to a fall in industrial production, but the contraction of that sector of the economic system was neither

[1] Cf. International Labour Office : *Industrial Labour in Japan*, Geneva, 1933, pp. 18 et seq.

excessively violent, nor of long duration. The index of industrial production in Japan moved as follows (1928 = 100) : [1]

1925	1926	1927	1928	1929	1930	1931	1932	1933
86	87	93	100	112	106	109	115	132

In order to appreciate the harm done to Japan by the depression, it must be remembered that Japan's industry is passing through a period of extremely rapid expansion, so that the position is different from that of the industrial countries referred to above. The rate of its expansion could be shown by a straight line rising by five points annually (1928 = 100). If this fact is borne in mind, the decrease in industrial activity in Japan during the world depression will be seen to have been longer and more extensive. At one point it would be as great as 13 per cent. (from the peak in 1929 to the lowest point in 1931). (Cf. diagram XXII, p. 121.)

The national income of Japan did not suffer during the depression to the same extent as the income of industrial countries. From 1922 to 1933 it fluctuated as follows (in millions of yen) [2] :

	Private income	Government income	Total
1922	10,261	388	10,650
1923	10,255	373	10,627
1924	11,072	424	11,696
1925	11,899	455	12,354
1926	11,561	488	12,049
1927	11,532	509	12,040
1928	11,899	525	12,424
1929	11,401	518	11,919
1930	9,951	520	10,471
1931	8,915	506	9,421
1932			9,813
1933			11,101

Source : " National Income and Business Activity " in the Monthly Circular of the Mitsubishi Economic Research Bureau, March 1934, p. 8. The figures were compiled by Mr. Hijkato, Professor in Tokyo.

[1] Up to 1930 the index is not weighted and applies to 12 commodities; from then onwards, it is a weighted index for 26 commodities. In 1931 the new index indicates a slight improvement in business, whereas the old index shows a decline in industrial activity (102 in 1931, 108 in 1932, 129 in 1933) (Monthly Circular of Mitsubishi Economic Research Bureau, January 1935, p. 29).

[2] These statistics differ from the ones compiled by the Cabinet Bureau of Statistics (The Oriental Economist, May 1935, pp. 13-15). The divergence is insignificant for 1933, which was especially studied by the Cabinet Bureau, but it is more marked in other years. The final statistics of the Cabinet Bureau in round figures are as follows (in thousands of yen) :

1925	1926	1927	1928	1929	1930	1931	1932
13,382	12,503	11,637	11,434	11,510	10,636	8,716	8,539

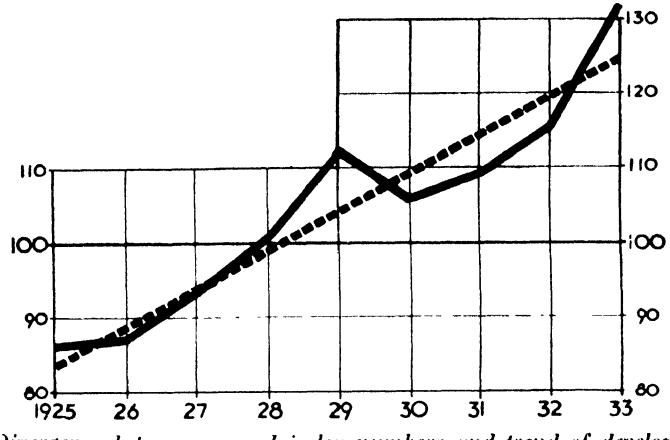
The estimates of the Mitsubishi Bureau have been preferred because it is possible to use them as a basis for comparing the distribution of the national income in Japan in 1925 and 1931.

According to these statistics, the national income of Japan reached its maximum in 1928 and fell again by 24 per cent. in 1931. This conclusion must be corrected in the light of the

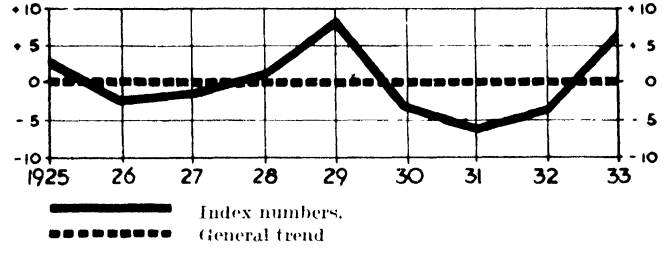
DIAGRAM XXII.—DEVELOPMENT OF INDUSTRIAL PRODUCTION IN JAPAN

(1928 = 100)

(a) *Index of production*



(b) *Divergence between annual index numbers and trend of development*



fluctuations that took place in the purchasing power of the yen. For this purpose Japanese statistics use the index of wholesale prices. In European countries, where the national income is assessed by the subjective method (on the basis of private incomes) it is the cost-of-living index that is generally used.

Index numbers of national income in Japan (1928 = 100)

	1925	1926	1927	1928	1929	1930	1931	1932	1933
Nominal income	99	97	97	100	96	84	75	79	89
Real income :									
(a) Calculated on the basis of the wholesale price index .	84	93	98	100	99	105	112	111	113
(b) Calculated on the basis of the cost-of-living index...	84	90	94	100	98	100	101	105	113

It may appear strange that the national income of Japan (when expressed in cash and also when converted by any method into yen with a fixed purchasing power) should have fallen slightly as early as 1929 just when the curve of production reached its highest point. We have, however, observed a similar phenomenon in other countries; the income declared by taxpayers generally reflects the income situation at the moment when the declaration is made, and not at the time to which the declaration refers. Moreover, 1929 was a very difficult year for Japan, and quite obvious symptoms of the depression had already begun to appear.

It would seem therefore that the depression stopped for a certain time the increase in the real income of the Japanese people, but did not involve any considerable actual loss.

Apart from possible errors in assessment of the national income and in its conversion to a monetary unit with an invariable purchasing power, it will be seen that this conclusion is by no means contrary to the general economic development of Japan. In 1928 the net value of industrial production in Japan was about 3,500 million yen. Its losses in 1930 (6 per cent.) may therefore be estimated in round figures at 200 millions of yen with the same purchasing power as in 1928. The whole of this sum, however, need not be shown as a loss for the year 1930, for the losses of industrial undertakings may in part have been anticipated by the taxpayers in assessing their income for the preceding year.

The following figures show the development of agriculture in Japan in recent years :

	Harvests			Animals killed			
	Rice[1]	Wheat	Barley	Oxen	Calves	Sheep and goats	Pigs
	In millions of quintals			In thousands			
1925	103.4	8.0	19.9	296	22	12	766
1926	108.0	7.7	19.2	279	22	12	597
1927	100.5	7.9	18.0	283	24	13	561
1928	112.3	8.4	17.7	307	28	14	716
1929	109.1	8.3	17.5	301	28	14	863
1930	110.3	8.0	15.8	263	26	25	725
1931	124.1	8.4	16.2	292	28	29	695
1932	102.5	8.8	17.1	352	29	30	987
1933	112.1	8.9	17.3	326	30	36	983

[1] For the year 1 July-30 June.

Source : Statistical Year-Book of the League of Nations, 1930-31, pp. 76, 80, 86 and 1934-35, pp. 80, 83, 88, 90 and 96.

There are certainly many indications of the fact that the economic life of Japan in 1931 was seriously affected by the depression. This is clearly brought out by the combined index of economic activity of the Mitsubishi Bureau :

1927	1928	1929	1930	1931	1932	1933
100	104.4	100.4	83.3	73.1	81.5	92.2

Source : National Income and Business Activity, op cit., p. 10.

These figures, however, represent changes in prices and variations in the volume of banking operations, rather than in the physical volume of production and exchange.

In any case national production in Japan was appreciably reduced by the depression. The same is true of the national income, for the exchanges of commodities with foreign countries did not justify any appreciable divergence between the national income and national production. Japan, which imports foodstuffs and raw materials, maintained a slight surplus of imports over exports throughout the depression and paid for this surplus, as it has always done, out of its surplus from the exchange of services. But in recent years Japan has added to the credit side of its exchanges operations of extensive exports of gold by means of which it has been able to pay the interest on its debts and to refund a part of those debts :

	1928	1929	1930	1931	1932
	(Millions of gold dollars)				
Deficit from the exchange of commodities	— 150.1	— 75.5	— 76.4	— 69.4	— 15.6
Surplus from the exchange of services [1]	+ 81.1	+ 93.4	+ 75.4	+ 52.8	+ 42.1
Movement of gold	— 0.2	— 0.3	+ 141.6	+ 189.6	+ 31.4
Total exchanges ..	— 69.2	+ 17.6	+ 140.6	+ 173.1	+ 57.9
Interest and dividends to be paid.....	— 11.1	— 9.1	— 12.5	— 11.5	— 10.6
Grand total ...	— 80.3	+ 8.5	+ 128.1	+ 161.5	+ 47.3

[1] Excluding interest and dividends.

Source : Statistical Year-Book of the League of Nations, 1933-34, p. 197.

The production of investment goods in Japan was not interrupted by the depression as is clearly shown by the output of cast iron, steel and electric power :

	1928	1929	1930	1931	1932	1933
Cast iron in thousands of tons	1,110	1,112	1,187	934	1,037	1,470
Steel in thousands of tons	1,955	2,343	2,328	1,914	2,441	3,100
Electricity in millions of kwh.....	12,036	13,312	13,910	14,402	15,950	18,160

Another index of the continuity of investment operations in Japan during the depression can be found in the development of its railway system.

	1928	1929	1930	1931	1932
Number of stations	5,354	5,988	6,379	7,088	7,329
Km. of railway in operation	18,843	19,611	20,634	21,505	22,106

Source : Résumé statistique de l'Empire du Japon, 18th year, Tokyo, 1934, p. 83. The statistics refer to State railways and railway companies in Japan only (excluding Korea, Formosa and Sakhalin).

The same movement can be traced in the development of the Japanese postal system and of the Japanese mercantile marine. The volume of capital issues declines for a very brief period only and the extent of the fall was reduced by the increase in the purchasing power of the yen. The total volume of capital issues was as follows :

	1928	1929	1930	1931	1932	1933
Issues (in millions of yen	4,031	2,662	2,456	3,136	3,818	6,617
Index number of the volume of issues (1928 = 100)[1]....	100	67	81	132	146	208

[1] Estimated on the basis of the index of prices for producers' goods 100 in 1928, 99 in 1929, 75 in 1930, 59 in 1931, 65 in 1932 and 79 in 1933

The most important outward signs of the depression in Japan are to be found in another field, namely, the distribution of the national income.

TABLE 14.—DISTRIBUTION OF PRIVATE INCOMES IN JAPAN

	Nominal income in millions of yen		Real income in millions of "1928 yen"[1]	
	1925	1931	1925	1931
Agriculture	3,362	1,200	2,849	1,622
Fishing	209	129	178	174
Extraction industries	193	109	164	147
Manufacturing industries	2,812	2,161	2,383	2,920
Transport and communications..	611	674	519	911
Commerce	2,191	1,878	1,856	2,538
Other occupations	1,036	1,034	878	1,397
Public administrative services...	1,104	1,317	936	1,780
Rent.....	356	412	302	557
Other sources of income	25	1	21	1
Total...	11,899	8,915	10,086	12,047

[1] Converted on the basis of the cost-of-living index.

Source : Monthly Circular of Mitsubishi Economic Research Bureau, February 1935, p. 26.

In 1931, therefore, the real income of the industrial section of the population was appreciably higher than in 1925. The increase was 23 per cent. in manufacturing industry, 37 per cent. in commerce and 76 per cent. in transport services. Landowners increased their real income (rent) by 84 per cent. and the income absorbed by the public administrative services rose by as much as 90 per cent. This makes a striking contrast with the situation of the farmers, whose income decreased by 43 per cent. At the same time, the number of persons dependent on this income for livelihood increased from year to year : there were 5,548,600 farmers' households in Japan in 1925 and 5,633,800 in 1931.[1]

It is true that the impoverishment of the agricultural population in Japan was not due solely to the world depression : The distress among agricultural workers began before 1929, but the depression and the fall in prices accelerated the movement. This can be seen by comparing the fluctuations in the total value of agricultural produce with the fluctuations in the cost of living.[2]

	1926	1927	1928	1929	1930	1931
Value of agricultural produce (in millions of yen)..	2,810	2,703	2,592	2,500	1,824	1,501
Index (1929 = 100)	112	108	104	100	73	60
Cost of living (1929 = 100).	110	105	102	100	86	73

The influence of the fall in the real value of their produce on the income of the farmers was all the greater because their rents and taxes had increased with the increase in the purchasing power of the yen. (As is shown by the items rent and income of public administrative services in table 14).

Subject to the reservations which are necessary in view of the approximate character of the statistics in question, it will be seen that the manifestations of the depression in Japan were very different from those observed in industrial countries and even to some extent quite the contrary. The fluctuations of prices on the world market produced an extremely violent agricultural depression in Japan, but the real losses of the farmers went to increase the incomes of the urban section of the population.

It may be asked why the decrease in the purchasing power of the farmers did not prevent the marketing of industrial products.

---

[1] *Résumé statistique de l'Empire du Japon*, Tokio, 1934, p. 25.
[2] *Ibid.*

and how it was possible for the agricultural depression not to give rise to over-production in industry.

Without going into details it may be pointed out that the distress in the rural areas in Japan was counterbalanced, as far as the home market was concerned, by the progress of industrialisation, by large-scale investment by the State and private individuals, and by orders given by the public authorities.

F.—Bulgaria

Bulgaria may be taken as an example of an essentially agricultural country in which industry is very slightly developed (cf. Appendix 2). This country has only a slight influence on the world market, but its agriculture has a surplus output which can only be marketed abroad and manufactured articles from foreign countries play an appreciable part in the trade of Bulgaria.

The development of the national income of Bulgaria during the depression has been studied by Mr. Kiranoff, who estimates the main items as follows (in millions of levas) :

	1929	1932
Goods and services :		
Agriculture :		
Crops	12,313	5,808
Cattle rearing	7,668	4,004
Total...	19,981	9,812
Industry :		
Large-scale industry (including mines)..	3,299	3,619
Small-scale industry	3,675	2,200
Public works [1]	550	350
Total...	7,524	6,170
Household work	5,490	3,660
Transport and communications	2,000	1,900
Commerce	11,600	4,800
Government services [2]	4,500	4,000
Liberal professions and domestic service...	1,520	980
Grand total...	52,600	31,300

[1] Railways, roads and buildings.
[2] Civil servants' salaries.

Source : P. Kiranoff : " Revenu national de la Bulgarie " in *Bulletin de statistique publiée par la Direction générale de la statistique*, Sofia, 1934, No. 12, pp. 573-590. The present writer has modified the original to adjust it to the method outlined at the beginning of this study.

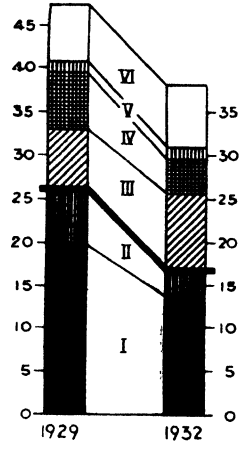
The estimates given above are based on an inventory and the totals, after deducting household services, represent national production. The value of this production was therefore

47,100 million levas in 1929 and 27,600 millions in 1932. The purchasing power of the leva in 1932, however, was much higher than in 1929. The cost-of-living index fell by 27.3 per cent. and the index of wholesale prices by as much as 40 per cent. from 1929 to 1932.

If the cost-of-living index is used to convert the incomes for 1932 into levas with the purchasing power of 1929, the changes in the different fractions of the national income of the country will appear as follows :

	Income in millions of " 1929 levas "		
	1929	1932	Increase (+) or Decrease (—)
Agriculture	19,981	13,634	— 6,347
Industry	7,524	8,487	+ 963
Commerce	11,600	6,604	— 4,996
Transport and communications	2,000	2,613	+ 613
Services	6,020	6,850	+ 830
Total...	47,100	38,200	— 8,900

DIAGRAM XXIII.—NATIONAL INCOME OF BULGARIA
(In millions of " 1928 levas ")



Distribution of real income.

Agricultural sector.

I. Agriculture.

II Trade in agricultural produce.

Industrial sector.

III. Industry.

IV. Trade in manufactured articles.

V. Transport and communications.

VI. Other services.

According to these figures the real income of Bulgaria declined by as much as 19 per cent., but the entire loss was concentrated in the agricultural section (32 per cent.) and commerce (43 per cent.), whereas in other branches of the economic system there was an appreciable increase in real income (16 per cent. for industry, transport, communications and various services taken together). The contrast becomes still more impressive if a distinction is made between commerce in agricultural produce and commerce in other articles, and between large-scale and small-scale industry,

the latter consisting essentially of handicrafts in rural districts. The income in home trade was as follows (in millions of " 1929 levas "):

	1929	1932	Losses
Commerce in agricultural produce ..	5,860	3,170	— 2,690
Commerce in manufactured articles.	4,430	3,210	— 1,220

In the case of industry, the income of the handicrafts section fell by 650 million " 1929 levas ", whereas the real income of the large undertakings increased by 1,610 millions. There are therefore conflicting trends in the development of the two main sections of the Bulgarian economic system : the losses resulting from the depression were concentrated in the agricultural section, whereas the industrial section does not appear to have been seriously affected.

The total losses of agriculture, commerce in agricultural produce and handicrafts amounted to 9,650 million " 1929 levas ", or 750 million levas more than the total loss of national income.

At the same time the volume of agricultural production in Bulgaria in 1932 was 15 per cent. higher than in 1929 (cf. table 15).

TABLE 15.—AGRICULTURAL PRODUCTION IN BULGARIA

	Net production in thousands of quintals		Value of production in millions of levas		
				1932	
	1929	1932	1929	based on average prices in 1932	based on average prices in 1929
Cereals	46,021	60,367	12,395	6,875	15,747
Oleiferous and industrial plants	3,633	2,784	2,629	736	1,722
Seed plants	564	805	593	215	862
Potatoes	441	716	161	113	262
Garden produce		—	254	182	—
Vegetables	1,483	1,361	291	204	275
Fodder	13,704	14,687	3,371	2,206	3,612
Vines and must	4,597	6,229	1,379	955	1,906
Roses	420	406	152	44	146
Fruit	321	795	156	155	337
Mulberry leaves	188	268	22	13	31
Grand total...	—	—	21,403	11,698	24,900
Value of cattle slaughtered .	—	—	3,310	1,454	3,433

Source : Bulletin de statistique publié par la Direction générale de la statistique, Sofia, 1934, No. 12, p. 575.

The divergence between agricultural prices and industrial prices which was due to world conditions quite outside the frontiers of Bulgaria thus produced a violent change in the distribution of the national income; it was in this form that Bulgaria felt the effects of the world depression.

Until 1932 the volume of economic activity in Bulgaria declined only slightly, and the situation did not become serious until 1933.

	1929	1930	1931	1932	1933
Production of coal (in thousands of tons)	133	128	122	141	124
Workers employed in industry (in thousands)	68	68	66	68	59
Railway goods traffic (in thousands of tons)	397	384	366	376	335

Source : Bulletin de statistique, Sofia, 1934, No. 22, pp. 1006-1008.

Until 1932, therefore, there cannot have been many unemployed persons in this country of peasants. Nevertheless there was already great poverty and a marked shrinkage in consumption. This can be seen from the statistics of sales of commodities within Bulgaria.

	1929	1930	1931	1932	1933
Sugar, in thousands of kg.	2,459	2,427	2,158	2,100	1,822
Tobacco, in thousands of kg.	415	376	300	292	281
Methylated spirits, in hectolitres	507	391	402	402	414

Source : Bulletin de statistique, Sofia, 1934, No. 22, p. 1006.

There can be no doubt that the decline in consumption was restricted in the main to agriculture. The small industrial section was able, until 1932, to take advantage of the divergences between the prices of manufactured articles and the prices of agricultural produce. The following figures show how wages varied in some important branches of Bulgarian industry :

	Average hourly wages in levas			
	1929	1930	1931	1932
Metal industries	10.05	9.42	9.01	8.37
Hides	9.96	9.44	9.21	8.86
Tobacco	6.73	6.87	6.67	6.70
Cost of living index (1929 = 100)	100	91.5	79.2	72.7

Source : Bulletin de statistique, Sofia, 1934, No. 3, p. 162.

As nominal wages had declined to a less marked extent than the cost of living, the index numbers of real wages in Bulgaria followed an upward course during the depression.

Index numbers of average real hourly wages (1929 = 100)			
	1930	1931	1932
Metal industries	103	133	115
Hides	104	116	123
Tobacco	112	125	139

Nevertheless, Mr. P. Kiranoff would seem to be correct in summing up the conclusions of his study of the national income of Bulgaria as follows : " During 1932 there was a decline in the meagre resources of the national economic system. That year, however, did not mark the end of the fall in income. During the following year economic distress was quite marked in industry, and there was a reduction in the volume of foreign trade and of internal exchanges, together with a progressive fall in the prices of agricultural produce and an increase in unemployment. . . . This development is still going on. The national income and, in particular, the incomes of the great mass of the producing population, are far below any reasonable standard. " [1]

It may be noted that the foreign trade of Bulgaria during the depression showed a slump in imports whereas the volume of exports first increased and then surprisingly remained at a high level during the latter phase of the depression.

Imports	1929	1930	1931	1932	1933
Value in millions of levas	8,325	4,590	4,660	3,472	2,202
Weight in thousands of tons	512	317	295	261	231
Average price per ton in thousands of levas.	16.3	14.5	15.4	13.2	9.6
Value in millions of levas at average 1929 prices	8,325	5,167	4,808	4,254	3,765
Exports					
Value in millions of levas	6,400	6,191	5,934	3,383	2,846
Weight in thousands of tons	313	543	769	588	431
Average price per ton in thousands of levas.	20.4	11.4	7.7	5.7	6.7
Value in millions of levas at average 1929 prices	6,400	11,077	15,688	11,995	8,792
Balance					
In millions of levas at actual prices	— 1,925	+ 1,601	+ 1,274	— 89	+ 644
In millions of levas at " 1929 levas "	— 1,925	+ 5,910	+ 10,880	+ 7,741	+ 5,027

Source : Calculated from figures in the *Bulletin de statistique*, Sofia. 1934, No. 24.

In 1929, therefore, Bulgaria had an excess of imports, which meant an increase in foreign indebtedness in its balance of payments. During the depression Bulgaria delivered annually to

[1] *Bulletin de statistique*, Sofia, 1934, No. 12, p. 590.

foreign countries almost twice as much produce as in 1929 and at the same time it cut down the volume of its imports by almost half. On the basis of average 1929 prices it exported goods to the value of 47,552 million levas from 1930 to 1933 and imported goods to a value of only 17,994 millions. Of the surplus of almost 30,000 million " 1929 levas ", only 3,430 millions are shown in the Bulgarian balance of trade as an excess over exports on the basis of actual prices, whereas the other 26,000 millions simply disappear because of the divergence in prices.

The losses of Bulgaria on international exchanges, calculated as the difference between its real commercial balance (on the basis of 1929 prices) and its nominal balance (at actual prices), were as follows (in thousands of million of " 1929 levas ") :

1930	1931	1932	1933
4.3	9.6	7.8	4.4

The amount of the losses in 1932 is only slightly less than the real decrease in the national income of Bulgaria, which was assessed above at 8,900 million " 1929 levas ".

The accuracy of these assessments must not be over-estimated. But the general trend of development as the result of the depression in this small agricultural country is perfectly clear. At the beginning of the depression there was no decline in production; there was merely a slump in agricultural prices, as a result of which national produce was sold at a ridicuously low price, the farmers were ruined and poverty spread in the rural areas.

On the international market the fall in agricultural prices meant a decrease in the real income of the country available for consumption. On the home market rural distress involved serious difficulties for industry and commerce in the latter part of the depression.

SECOND PART

THE VARIOUS SOCIAL CLASSES DURING THE DEPRESSION

CHAPTER I

THE EMPLOYED POPULATION

A.—Composition of the Employed Population and of Labour Income

The manner in which the material situation of the employed population changed during the last depression seems to prove clearly that it is not a homogeneous social group with identical interests throughout. Under the influence of the depression there was a very marked divergence between the interests of different occupational groups. The more one studies the variations during the depression in what is known statistically as "labour income" (as opposed to "mixed income" and "capital income") the more necessary it becomes to make a clear distinction between the sections of that income which have nothing in common but their official title.

Statistics of national income usually retain the definition of "labour" adopted for tax purposes. In taxation no clear distinction is made between the work of a wage earner and that of an independent producer or between a salaried employee and an employer. For tax purposes that fraction of the profits kept by the enterpriser as remuneration for the management of the undertaking is considered as salary. Similarly the allowances of managers and members of the board of directors of joint stock

companies, the salaries of higher Government officials and of many other persons are considered as being labour income. This may be correct, but only on condition that the concept of labour is extended so that no distinction is made between wage-paid labour and independent labour. Such a distinction is generally made in the census with a view to indicating the social structure of the population. Moreover, while following the usual classification of taxable income, the statistics of national income are sometimes influenced by the suggestions of the taxpayer, whose accounts spread the earnings of the undertaking over a variety of items. In this way large sums that really constitute part of the profit on capital are reckoned as part of labour income.

Take, for example, the composition of the income of employed persons (i.e. wages and salaries) in Germany just before the depression (table 16).

TABLE 16.—INCOME OF EMPLOYED POPULATION IN GERMANY IN 1928

	Annual income						Total
	Up to 1,200 RM.	From 1,200 to 5,000 RM.	From 5,000 to 12,000 RM.	From 12,000 to 25,000 RM.	From 25,000 to 100,000 RM.	Over 100,000 RM.	
Number of earners (in 1000's)	14,176	8,436	687	73.8	22.6	2.0	23,397
Amount of income (in millions of RM.)	14,153	23,524	4,976	1,018	643	199	44,513

Source : Das deutsche Volkseinkommen vor und nach dem Krieg, Einzelschriften zur Statistik des Deutschen Reichs, No. 24, 1932, p. 111, Berlin.

It is clear that a considerable fraction of the incomes over 12,000 RM. did not belong to persons shown in the census figures as dependent workers.

Statistics of national income practically always show a tendency to overestimate labour income and underestimate other forms of income. Thus the total amount of wages and salaries is shown as being almost half the national income and as continuing through all the vicissitudes of the depression to represent an almost unvariable percentage of the total national income.

According to the statistics of Germany, France and the United States, so-called labour income (wages and salaries) constituted the following percentage of the national income :

	1928	1929	1930	1931	1932	1933
Germany	56.5	56.7	56.7	58.1	56.8	56.0
France	45.3	47.2	50.3	51.3	52.2	—
United States	—	64.0	63.9	64.7	63.4	60.5

These sets of figures, impressive as they may seem, clearly show the danger inherent in statistics based on an addition of items : the regularity of totals covering artificial and heterogeneous groups is bound to be illusory. In the case in question the totals include very different types of income, the fluctuations of which during the depression followed divergent or sometimes opposite trends.

The employed population for census purposes (that is, all wage and salary earners, excluding the managers of undertakings and higher officials) includes a variety of social groups : manual workers, private employees, public officials, etc. It is true that in the course of the last century there has been a tendency towards levelling up among those groups : in our day the gap between an office employee and a factory worker is not so great as it was at the beginning of the nineteenth century. The depression, however, reversed this process that went on last century, for the decline has been much more pronounced among the lower grades of wage earners than among the higher ones. The depression has destroyed social homogeneity among the workers by creating a division between those who work and those who cannot find employment, thus creating a new class below the proletariat : that of unemployed persons.

The census made in Germany in the middle of the depression in 1933 provides a striking example of the redistribution of the working population as a result of the economic depression. There were in Germany in round figures 21.7 million employed persons, distributed as follows by social groups and economic branches (table 17, p. 136).

When it is remembered that during the depression a large proportion of workers and salaried employees were working short time [1] it will be realised that the working population in

[1] Cf. INTERNATIONAL LABOUR OFFICE : Wladimir WOYTINSKY, *Three Sources of Unemployment*, 1935, p. 92.

TABLE 17.—DISTRIBUTION OF EMPLOYED POPULATION IN GERMANY IN 1933

(In thousands)

Occupations	Workers	Salaried employees	Public officials	Total	Including	
					Unemployed	Employed
Agriculture	2,530	98	17	2,645	309	2,336
Industry and crafts .	9,937	1,301	23	11,261	4,197	7,064
Commerce and transport	1,848	1,784	549	4,181	922	3,259
Public services, liberal professions, etc.	598	831	896 [1]	2,325	241	2,084
Domestic service....	1,251	18	—	1,269	183	1,086
Total...	16,164	4,032	1,484	21,681	5,852	15,829
Including :						
Unemployed	4,976	876	—	5,852		
Employed	11,188	3,157	1,484	15,829		

[1] Including persons on military service.

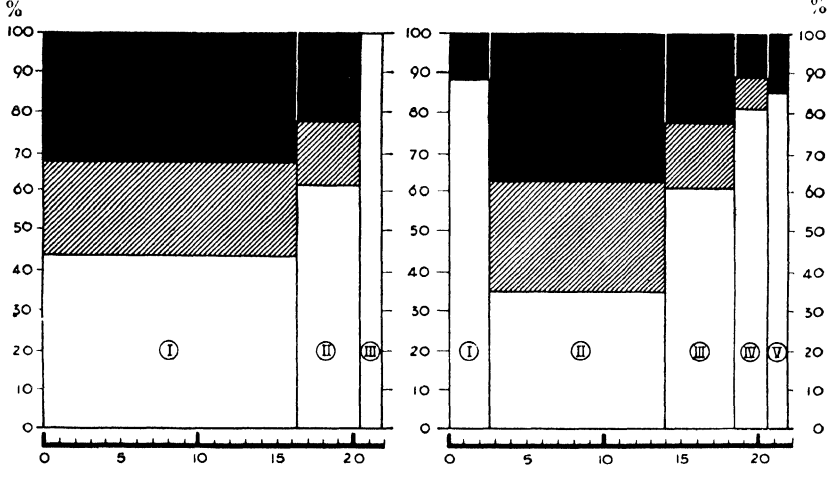
Source : Statistisches Jahrbuch fur das Deutsche Reich, 1934, p. 19.

DIAGRAM XXIV.—DISTRIBUTION OF WAGE AND SALARY EARNERS IN GERMANY IN 1933

A. *Distribution by social groups*

B. *Distribution by economic sectors*

White : workers in regular employment. Shaded : on short time.
Black : wholly unemployed.



Millions.

I. Workers. II. Salaried employees. III. Public officials.

Millions.

I. Agriculture. II. Industry. III. Commerce, etc. IV. Public services. V. Domestic service.

Germany was divided into four groups of approximately equal numerical importance :

	In round figures
Completely unemployed	6 millions
On short time	4.5 ,,
Workers in regular employment	6 ,,
Salaried employees, domestic servants and public officials in regular employment	5.7 ,,

Workers in regular employment, who normally constitute the bulk of the employed population and are the most representative branch of it, were thus reduced to a minority.

The influence of the depression on the composition of labour income was equally important. The variations that took place have not escaped the attention of economists and statisticians who have studied the distribution of national income during the depression.

In the report on national income from 1929 to 1932 submitted to the United States Congress there is the following statement :

" It is somewhat misleading to speak of employees and of their average compensation as if they formed a homogeneous group with an equal distribution of ability and compensation. There are obviously marked gradations in status and compensation which ought to be studied fully in order to learn more precisely the nature of recent changes in the flow of labor incomes. "[1]

United States statistics on this point are very instructive, not only because of the information they give concerning the economic development of that country, but also from a more general point of view as a typical example of a phenomenon that occurred in practically all the industrial countries affected by the depression (cf. Appendix 12 A).

The average income per head of persons in full-time employment in the United States fell from 1,475 dollars in 1929 to 1,199 in 1932. This fall was entirely counterbalanced by the fall in the cost of living (about 20 per cent. in round figures), so that the average real earnings of workers, salaried employees and public officials in full-time employment in the United States might be said to be no lower in 1932 than in 1929.

The same holds good, more especially, of the real income of persons employed in electric power stations, transport, commerce, credit, public services and certain occupations indicated as " miscellaneous " in table A of Appendix 12. The whole

[1] *National Income, 1929-1932*, p. 29.

economic sector to which this statement applies employed 17.3 million persons in 1929 and 13.1 millions in 1932. The index number of average income in 1932 (base : 1929 = 100) varies within these groups from 80 to 86. Consequently all these occupations suffered in income only in so far as there was a decline in the volume of employment. On the other hand, there were the agricultural and industrial workers, miners and building workers whose real incomes contracted to an extent that was by no means counterbalanced by the fall in the cost of living, and it is in this section that one finds the occupational groups that are most severely affected by unemployment. Public officials were not affected by unemployment and had practically no fall in their remuneration, so that their real income increased appreciably during the depression.

The extent of this phenomenon will be clearer if the figures for three typical groups of occupations are taken : workers, salaried employees and public officials. The variations in the incomes of these groups in the United States from 1929 to 1932 were as follows :

	Real income (in millions of "1929 dollars")		No. of persons employed (in thousands)		Real income per head (in "1929 dollars")	
	1929	1932	1929	1932	1929	1932
Production[1]	20,556	11,007	14,331	8,811	1,434	1,249
Commerce and credit ..	11,255	9,726	6,984	5,624	1,617	1,729
Government	4,984	6,563	3,003	3,122	1,660	2,102

[1] Agriculture, mining, manufacturing industries and building. The results of the calculations are much the same if agricultural workers are excluded.

If the real value of the average income for all groups remained more or less unchanged during the depression, this stability was due to the fact that the decline in the average income of workers was counterbalanced by the increase in the real income of salaried employees and public officials. In other words, what was lost by the lower grades of employed persons represented an improvement in the situation of the higher grades.

The same phenomenon can be observed in Germany during the depression, although in a rather less marked form. The amount of wages and salaries (labour income) in Germany varied as follows :

	Nominal income (in millions of RM.)	Real income (in millions of RM.)	Index number of real income (1929 = 100)
1929	43,045	43,045	100.0
1930	39,851	41,445	96.3
1931	33,378	37,783	87.8
1932	25,711	32,833	76.3
1933	25,980	33,904	78.8

Source : Vierteljahrshefte zur Statistik des Deutschen Reichs, 1934, III, p. 73.

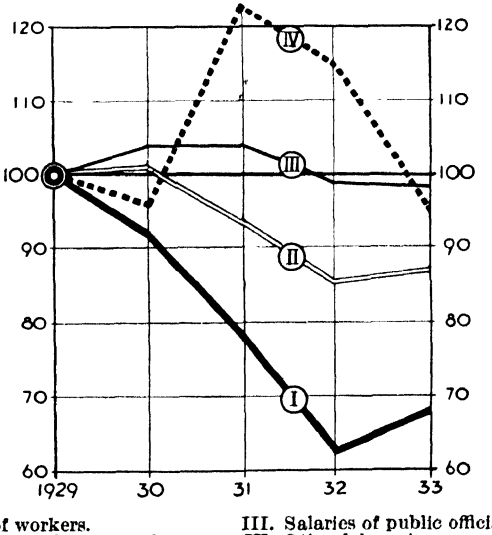
The shrinkage of the real income of employed persons expressed in RM. with a fixed purchasing power must in this case be attributed to the decline in employment and not to a fall in the average remuneration of persons who were fully employed (cf. Appendix 12 B).

The real income per head of persons who were fully employed in Germany remained practically unchanged during the depression : the average income of wage and salary earners in employment (without taking into account the reduction in hours of work) fell by 4 per cent. and the average income per head of all wage and salary earners decreased by 21 per cent. From their point of view as a social group, it is only the last figure that counts, and it is sufficient to show the extent to which their standard of living fell as a result of the depression. The various parts of labour income, however, were not affected to the same extent by the depression (cf. Appendix 12 C).

The real value of the salaries of public officials in 1930 and

DIAGRAM XXV.—DEVELOPMENT OF LABOUR INCOME IN GERMANY DURING THE DEPRESSION

(1929 = 100)



I. Wages of workers.
II. Earnings of salaried employees.
III. Salaries of public officials.
IV. Other labour income.

1931 was higher than in 1929. During the latter part of the depression there was only a slight fall (1.2 per cent. in 1932, 1.6 per cent. in 1933). The purchasing power of salaried employees

decreased by about 14 per cent., while the real value of the total income of the workers in 1932 was 38 per cent. lower than in 1929.

The result of this situation was a considerable change in the distribution of labour income over the three groups : the share of the workers fell from 54.2 per cent. in 1929 to 44.4 per cent. in 1932, the share of the salaried employees rose from 25.7 per cent. to 28.7 per cent., and the share of public officials from 16 per cent. to 20.8 per cent.

Leaving aside income which cannot be attributed to any of the three groups of employed persons (" Miscellaneous Labour Income " in Appendix 12 C) the total labour income was distributed as follows (in percentages) :

	Workers	Salaried employees	Public officials
1929	56.5	26.8	16.7
1930	53.9	28.0	18.1
1931	51.1	28.7	20.2
1932	47.3	30.6	22.1
1933	49.0	29.9	21.1

Source : Vierteljahrshefte zur Statistik des Deutschen Reiches, 1934, III, p. 71.

It is clear that the depression, which had such divergent effects on the various groups of employed persons, must appear in a very different light to each group. The contrast between the position of workers and that of public officials is particularly striking. Departing from the general trend which had been going on for a century in the situation of public officials, these persons did not during the depression share the fate of the proletariat in factories and offices, but rather enjoyed the same advantages as the social groups possessing an invariable income based on acquired rights.

In the present chapter the income of workers and salaried employees will be studied. The income of public officials will be dealt with in a later chapter along with the income of the middle classes.

B.—Employment and Unemployment

The characteristic feature of the recent depression from the point of view of the conditions of the employed population is that the earnings of workers and of salaried employees were affected not so much by a fall in the rate of wages or salaries but rather by the decline in the volume of employment. This decline found expression in two phenomena : (1) a fraction of the staffs of undertakings

was dismissed; (2) those who remained in employment were working short time. We shall deal first of all with the decrease in staff, which is unemployment in the strict sense.

Employment decreased during the depression to a very unequal extent in different countries and in different branches of economic activity (cf. Appendix 13 A). As a general rule, the reduction in staff was particularly violent in the mining industry, manufacturing industries and building, whereas in agriculture, transport, commerce, credit, etc., the fall was not so marked. From this point of view, however, the United States constitute a striking exception : there was a very drastic reduction in the volume of employment in agriculture and transport (more especially in railways).

Employment in different branches of industry was not always equally sensitive to fluctuations in business activity. The industries for producers' goods (and especially for investment goods) reduced their staffs to a greater extent than the industries for consumers' goods. In some cases there was a particularly rapid contraction in export industries. There was a considerable reduction in employment in wage-paid occupations, whereas the openings for salaried employees increased on the whole.

By way of example, the following figures may be given for the level of employment in various branches of industry in Great Britain in July 1932 as percentages of the level in July 1929 :

Mining	72	Clothing trades	95
Brick, pottery, glass, etc.	85	Food, drink and tobacco	98
Chemicals	90	Sawmilling, furniture, etc.	90
Metal manufacturing and engineering	70	Printing and paper trades	101
Vehicles	84	Building	90
Shipbuilding	72	Gas, water and electricity	101
Metal trades	93	Transport and communication	98
Textile trades	78	Distributive trades	109
Leather, etc.	91	Commerce, banking, etc.	103

Source : Calculated from official statistics in the *Ministry of Labour Gazette.* INTERNATIONAL LABOUR OFFICE, Wladimir WOYTINSKY : *Three Sources of Unemployment,* 1935, p. 73.

It should be noted that in Great Britain the textile industry suffered from the depression because it was an export industry. The chief reason for its decrease was the decline in the purchasing power of foreign agricultural countries. In Germany, France and the United States, on the other hand, there was only a slight reduction in the staffs of textile undertakings.

There are similar differences in the degree of employment in

the building industry. The level of employment in that branch was relatively high throughout the whole of the depression in some countries, such as Great Britain and France, whereas in others, such as Germany and the United States, it was one of the chief centres of the depression.

The study of the variations of employment during the depression thus brings us back to the problems discussed in preceding chapters with regard to the influence of the depression on various branches of production.[1]

The extent of unemployment cannot be gauged simply by inverting the index numbers of employment, and that for a variety of reasons.

In the first place, the extent to which unemployment increased during the depression exceeded the contraction of employment because the army of the unemployed included not only those who were dismissed from their jobs but also the influx of new workers on the labour market.[2] In the second place, unemployment in various occupations does not correspond exactly to the reduction in the volume of employment, because a fraction of the workers left occupations that were particularly subject to unemployment and entered other occupations where they hoped to find a job more easily. From this point of view the migration of workers from industrial occupations to commerce, transport and services of all kinds is particularly significant.[3]

The general trend in the development of unemployment in the world throughout the depression is shown by the general index of unemployment compiled by the International Labour Office (cf. diagram XXVI).

This index number takes as a basis of comparison (= 100) the average level of unemployment in 1929, a period at which industrial production was booming, although there were a million unemployed workers in Great Britain, 2 millions in Germany,

---

[1] Cf. p. 32.; and Chapter II of the First Part.

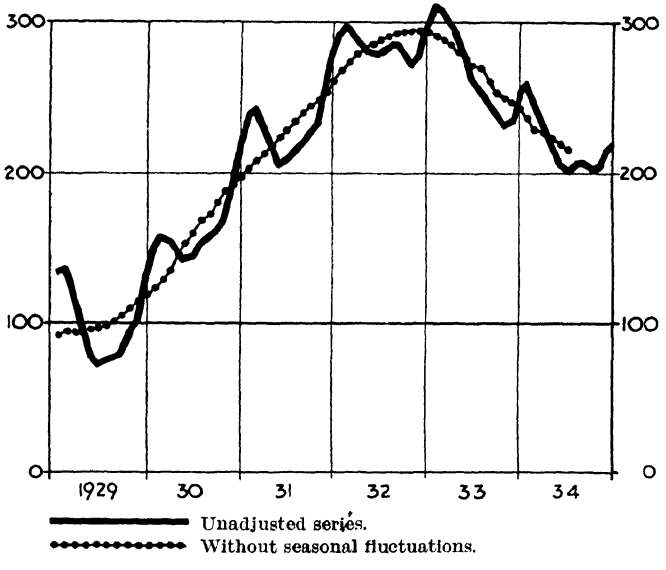
[2] This phenomenon was relatively unimportant in Germany, France, Italy and certain other countries in which the years of the depression coincided with the arrival on the labour market of the generation representing the lean years of the War when the birth rate was low. On the other hand, the influx of workers on the labour market during the depression was extremely important in the United States, Great Britain and the countries that were neutral during the War.

[3] The flow of workers from industry to other occupations was particularly marked in Great Britain. The reader may be referred to the data given in *Three Sources of Unemployment*, p. 77.

nearly 3 millions in the United States, 300,000 in Italy, about the same in Japan, 200,000 in Austria, etc. Allowing for the omissions from official estimates, the total volume of unemployment in the world in 1929 must have been about 10 millions in round

DIAGRAM XXVI.—INTERNATIONAL INDEX NUMBER OF UNEMPLOYMENT

(1929 = 100)



figures. From 1929 to 1932 this total was trebled : in the countries covered by the statistics there were almost 30 million unemployed workers when the depression was at its worst. This figure does not include workers on short time or " invisible " unemployment. If these two items are added the total would certainly exceed 40 millions. Leaving out of account seasonal fluctuations, the highest point reached by the curve of world unemployment was in the last quarter of 1932. There was a certain improvement in the two following years, but during 1935 unemployment in the world was still twice what it was in 1929.

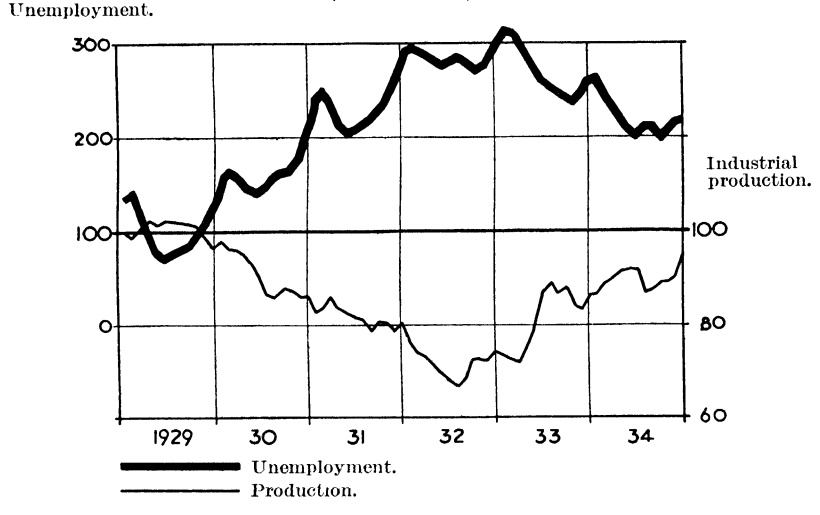
It is interesting to compare the growth and decrease of unemployment in the world during the depression with the movement of industrial production. The comparison can only be approximate, for there are no index numbers of production and unemployment covering exactly the same countries and the

same branches of production. One can, however, with certain reservations, compare the index number of unemployment in sixteen countries compiled by the International Labour Office with the index number of world production calculated by the Business Research Institute, Berlin (cf. diagram XXVII).

The increase in (visible) unemployment during the first phase of the depression ran more or less parallel with the decline in industrial production : every decrease of one per cent. in the

DIAGRAM XXVII.—INDEX NUMBERS OF WORLD UNEMPLOYMENT AND INDUSTRIAL PRODUCTION

(1929 = 100)



volume of production at that period meant an increase of half a million in the number of unemployed or a rise of 5 per cent. in the index number of world unemployment. During the later phase of the depression the two movements were apparently no longer parallel, for unemployment did not decrease to the same extent as industrial production increased. This divergence, which was observed in the United States, Germany, Great Britain, Japan and other countries, is strikingly brought out by the index number of the International Labour Office. As compared with the level of production at the end of 1934, there were about 10 million too many unemployed workers in the world (not counting workers on short time and invisible unemployment). The reason for this is obvious : during the depression millions of

new workers had arrived on the labour market and, at the same time, technical progress had enabled industry to return to the volume of production of 1929 with a reduced staff. Thus at the end of the depression there were new social and economic problems requiring solution.

These questions, however, belong to a phase of the depression which falls outside the chronological limits of the present study. We must go back to the period at which the depression was growing from month to month and study its reflection in the unemployment figures.

The growth of unemployment in different countries and different occupations can be measured by statistics from various sources : reports of social insurance funds, reports of workers' trade unions or of their relief or mutual aid funds, etc. These statistics can be presented in the form of monthly or annual series on the basis of three methods : (1) the actual number of unemployed persons; (2) the percentage of unemployed among the working population; (3) an index number showing the fluctuations in the number (or percentage) of unemployed persons as compared with the date taken as a starting point for the calculations.

The first of these methods is generally based on unemployment insurance figures (Germany, Great Britain, Italy, etc.). Sometimes also it is applied to the results of more or less complex estimates, as is the case in the monthly figures of the American Federation of Labor.[1] This method ought to give the best results, but it is only rarely that it can be applied to the whole labour market without exception. Generally a fraction of the unemployed population escapes registration and goes to swell the volume of invisible unemployment.

The statistics of the percentage of unemployed persons in the working population are based on the records of unemployment insurance or other branches of social insurance or on registers kept by the workers' unions. This last form of unemployment statistics perhaps gives the most exact picture of the situation in various occupations. It has also the advantage of revealing more or less satisfactorily the extent of short time, but the totals obtained sometimes make the general level of unemploy-

[1] Cf. Robert R. NATHAN : " Estimates of Unemployment in the United States, 1929-35 ", in the *International Labour Review*, Vol. XXXIII, No. 1, January 1936, pp. 49-73.

ment appear higher than it is in reality, because the various occupations are never represented in trade union statistics in a proportion reflecting exactly their numerical importance in the country. Some occupations that are particularly sensitive to trade fluctuations (for example, branches of the iron and steel industry) are usually better organised than many other occupations which are less seriously affected by the depression (for example, the food and drink trades). It may also happen that when the depression is far advanced there is a time lag in the registration of an improvement of employment in trade union statistics, because undertakings that are engaging extra workers may give preference to young persons not belonging to any organisation over older workers who retained their trade union membership throughout the depression.

The third method (that of index numbers) may be applied to the absolute figures for unemployment or to the percentages obtained from social insurance or trade union figures. It has all the advantages and all the disadvantages of the original data on which it is based. It is really not so much a special method of assessing unemployment as a means of presenting data obtained by any other method. If these data are incomplete or give an erroneous impression of the extent of unemployment, the same errors will be reproduced in the index numbers which take the place of the absolute or relative figures.

Table B of Appendix 13 shows the development of the absolute number of unemployed persons in a few countries that have statistics of this kind or for which more or less exact estimates have been made. These statistics are not strictly comparable because they are not all equally complete or obtained by the same methods. They suffice, however, to show the trend of the movement in various countries. In practically every case the highest figure was reached in 1932 or in 1933, but in a few countries (such as France, Belgium, the Netherlands and Switzerland) the volume of unemployment continued to increase in 1934.

With regard to the percentage of unemployment among trade union members or persons insured against unemployment, the significance of the figures will depend on the economic structure of the country, the importance of trade unions, the extent of the social insurance scheme, etc. Subject to that reservation, table C in Appendix 13 gives some statistics which supplement those in table B. According to these statistics, the average

percentage of completely unemployed persons among trade union members or insured workers during 1932 was as follows :

Less than 10 per cent. in Japan and Switzerland;
From 10 to 15 per cent. in Czechoslovakia and Poland;
From 15 to 20 per cent. in Belgium and Great Britain;
From 20 to 25 per cent. in Canada, Sweden and the United States;
From 25 to 30 per cent. in Australia, Austria and the Netherlands;
From 30 to 35 per cent. in Denmark and Norway;
Over 40 per cent. in Germany.

An annual average volume of unemployment of 25 per cent. would appear to have been normal at that date. In Germany, however, the comparative number of unemployed persons was exceedingly high : during the year 1932, 43.7 per cent. of trade union members on the average were unemployed and 22.6 per cent. were working short time, only 33.7 per cent. being regularly employed throughout the week.[1]

The variations in the degree of unemployment during the depression are very well shown by the index numbers of the International Labour Office which are reproduced in table D of Appendix 13. According to these figures, it was in the industrial countries that the fluctuations in unemployment were most marked, not only in absolute figures but also in relative figures as compared with the normal level (cf. diagram XXVIII, p. 148).

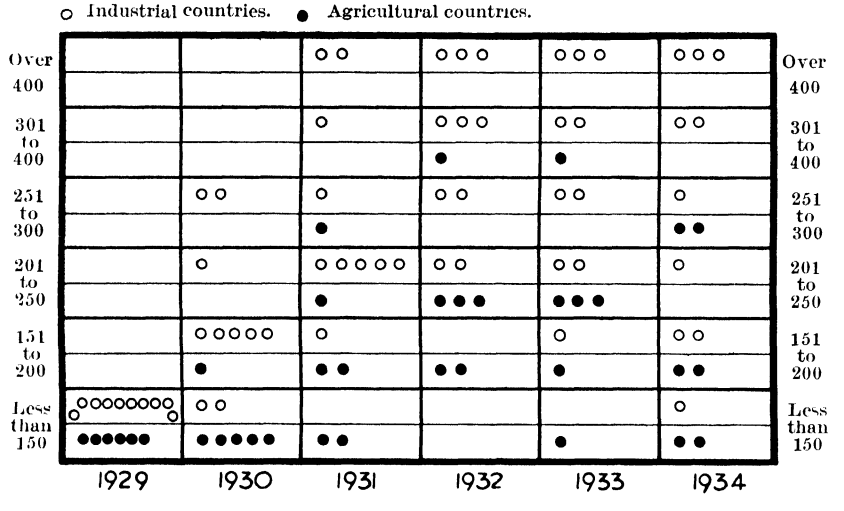
Diagram XXVIII, which is drawn up on the principle of " dispersion tables ", brings out this difference between the two groups of countries : the black circles (index numbers of agricultural countries) remain in the lower divisions of the table. It is very rare that any of them comes above the limit of 250, whereas the white circles (index numbers of industrial countries) are congregated above that limit.

Tables B, C and D of Appendix 13 all refer to wage-earning occupations as a whole, in so far as these are represented in the trade unions or in social insurance. They therefore represent average values. But, as was pointed out above, the various occupations were not affected to the same extent by the depression and by unemployment : some groups of workers were in a comparatively privileged situation whereas the consequences of the depression were disastrous for certain other occupations. One may quote, as an example, the following German statistics for the summer of 1932—a period at which there was practically no seasonal unemployment. The members of the independent trade

[1] For the membership of the independent trade unions, cf. p. 148.

DIAGRAM XXVIII.—DISTRIBUTION OF INDEX NUMBERS OF UNEMPLOYMENT IN THE VARIOUS COUNTRIES ACCORDING TO THEIR INCREASE AS COMPARED WITH 1929

(1929 = 100)



unions in Germany were distributed in the following manner in June 1932 (in percentages) :

Occupations	In normal employment	Wholly unemployed	On short time
Public services	63.1	16.7	20.2
Printing	50.0	35.7	14.3
Mines [1]	49.9	19.7	30.4
Sugar industry, etc.	42.4	39.3	18.3
Food and drink	41.1	22.5	36.4
Paper	37.9	25.1	37.0
Glass	34.6	50.8	14.6
Chemicals	33.6	33.1	33.3
Stone	30.2	68.4	1.4
Tobacco and cigars	30.1	42.8	27.1
Clothing	27.2	44.2	28.6
Wood	24.7	65.8	9.5
Metal works	23.5	47.5	29.0
Textiles	22.9	34.8	42.3
Carpentry	22.8	77.2	—
Building	22.4	77.6	—
Saddlery and upholstery	22.0	65.9	12.1
Hosiery	21.9	52.3	25.8
Boots and shoes	21.6	39.2	39.2
China	19.5	44.4	36.1
Painting	17.5	79.0	3.5

[1] The figures for unemployment in the mining industry are incomplete.

At that date an occupation in which half the workers were in full time employment in Germany was a rare exception. In the

most important occupations (metal work, textiles, wood, and building) the proportion of persons in regular employment was barely 25 per cent. There were even occupations in which scarcely one worker in five was working full time. It should be added that the majority of the unemployed had been out of work for years, that those who were working short time expected at any time to be dismissed and that the workers in regular employment were constantly threatened with the loss of their privileged position. Some idea can thus be obtained of the material and moral situation of the German working classes in the summer of 1932. At that date, moreover, the depression had not yet reached its lowest point. Unemployment continued to increase; in certain occupations (e.g. the textile industry) there was an improvement in employment, but it declined more and more in other occupations, such as building. The last report published by the trade unions before they were dissolved indicates the distribution of their members according to their degree of employment as follows : working full time, 30.5 per cent.; wholly unemployed, 46.1 per cent.; on short time 23.4 per cent.[1]

For reasons on which we cannot dwell here, Germany was more seriously affected by unemployment than any other country, and therefore the social consequences referred to represent the extreme case.

In order to define exactly the social consequences of the depression for the working classes it would be necessary to study the distribution of unemployment by sex and by age. That, however, is too wide and complex a problem and the necessary equipment is lacking to enable us to deal with it thoroughly within the scope of this general study. It must suffice to make a few comments without drawing any final conclusions. It would seem that young persons and older workers were more seriously affected by the depression than the middle age groups in the same occupations.[2] The later stages of the depression would seem to have brought about a considerable improvement in the employment of young persons, but no change in the position of older workers.

---

[1] *Gewerkschaftszeitung*, 1933, No. 17, 29 April, p. 272.

[2] The available statistics of unemployment among young persons are entirely inadequate. Apart from a few special enquiries, they make no distinction between age groups below 17, from 17 to 19, from 19 to 21, etc. Groups including men and women of all occupations up to the limit of, say, 24 years cannot be used as a basis for any definite conclusions. Subject

The statistics of unemployment among women are very incomplete, more especially in the United States, France and Italy. It is only recently that the question has received the attention it deserves.[1] As women are not largely employed in the branches of production which suffered most from the depression (mines, metal works, shipbuilding, and building in certain countries), and as women are employed in large numbers in agriculture, light industry, office work and domestic service, all of which are comparatively insensitive to trade fluctuations, it is not surprising that the percentage of unemployment among women during the depression should have been lower than among men. This can be seen from the statistics for Great Britain, Germany and some other countries (cf. Appendix 13 E and diagram XXIX).

The same divergence was clearly brought out by the census made in Germany in June 1933 : in every branch of economic activity the percentage of unemployment was much higher among men than among women. (See table 18.)

---

to that reservation we may reproduce the following data collected by the International Labour Office :

UNEMPLOYMENT OF YOUNG PERSONS AS PERCENTAGE OF TOTAL UNEMPLOYMENT

Country	Age group (years)	Date	Percentage		
			Total	Males	Females
Czechoslovakia	14-24	July 1932	24.6	—	—
		Feb. 1933	22.8	—	—
Denmark	18-25	May 1933	28.1	27.9	29.3
Finland	16-25	Oct. 1933	33.3	—	—
Germany.....	Up to 24	June 1933	26.1	23.4	36.7
		June 1934	18.8	16.1	29.9
Great Britain	14-24	1931	30.2	25.4	44.2
Hungary	Up to 24	1930	42.0	—	—
Italy	15-25	1932	41.5	32.7	57.6
Netherlands	Up to 25	Oct. 1933	27.8	—	—
Norway	18-24	1933	27.0	—	—
Sweden	16-25	Nov. 1933	33.7	—	—
Switzerland	Up to 24	July 1934	15.0	14.0	17.0
United States.....	15-24	April 1930	27.6	24.8	42.4

The Office, while expressing the opinion that this table should be interpreted with great prudence and that the conclusions to be drawn from it are very general and limited, points out that the proportion of unemployed persons under the age of 25 is generally about a quarter of the total number of unemployed of all ages. If the number of unemployed persons in the world be taken as 25 millions, the number of young unemployed persons under the age of 25 may be estimated at about 6 or 7 millions (INTERNATIONAL LABOUR OFFICE : *Unemployment among Young Persons*, Geneva 1935, p. 16).

[1] Cf. Henri FUSS : " Unemployment and Employment Among Women ", *International Labour Review*, Vol. XXXI, No. 4, April 1935, pp. 463-497.

One may ask whether the sole explanation of this phenomenon is the different distribution of workers of the two sexes over various occupations or whether it is partly due to the tendency

DIAGRAM XXIX.—UNEMPLOYMENT AMONG MEN AND WOMEN IN GREAT BRITAIN AND GERMANY

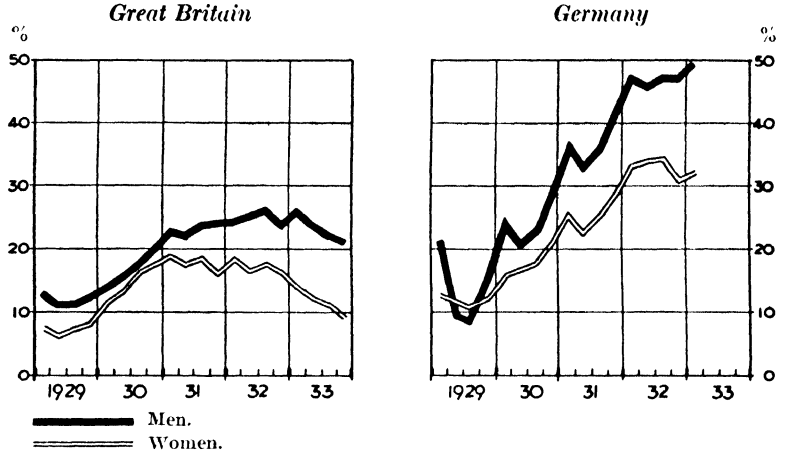


TABLE 18.—UNEMPLOYMENT AMONG MEN AND WOMEN IN GERMANY IN 1933

Branch of activity	In thousands				Percentage unemp oyed	
	Occupied population		Numbers unemployed			
	Men	Women	Men	Women	Men	Women
Agriculture	1,752	877	263	46	15.0	5.2
Industry	8,954	2,283	3,607	590	40.3	25.9
Commerce and transport ..	2,479	1,153	677	245	27.3	21.3
Public services	728	701	160	84	22.0	12.0
Domestic service	20	1,250	5	178	25.0	14.2
Total...	13,933	6,264	4,712	1,143	33.8	18.2

Source : Calculations based on the results of the 1933 census, published in *Statistisches Jahrbuch für das Deutsche Reich*, 1934, pp. 18 and 19.

of employers during the depression to replace their male employees by women, to whom lower wage rates are paid. It is impossible to give a definite reply to this question. It is certain that in some occupations unemployment was less marked among women than amongst men in the last few years, but there are examples

of the reverse situation, particularly in branches of industry in which women are most widely employed (e.g. textiles).

As an example of the complexity of the problem, the unemployment statistics for Germany and Great Britain may be cited. At the end of July 1932 the German trade unions reported the following percentages of unemployed among their members :

	Men Per cent.	Women Per cent.
Glass works	53.3	44.6
China	51.0	38.2
Chemicals	35.5	30.6
Metal works	49.6	37.2
Textiles	35.0	35.7
Clothing	51.9	38.8
Hosiery	42.5	57.3
Boots and shoes	40.5	37.8
Paper	26.9	27.1
Sugar	37.2	44.9
Foodstuffs	22.4	26.0
Tobacco	48.0	41.6

Source : Gewerkschaftszeitung, 1932, No. 34, p. 543.

Unemployment among persons of the two sexes in the same occupations in Germany was thus approximately the same. In Great Britain, on the other hand, men in every occupation were more seriously affected by unemployment than women. According to the reports of unemployment insurance funds, the percentage of wholly unemployed workers and temporary stoppages on 25 July 1932 was as follows :

	Men Per cent.	Women Per cent.
Chemicals	19.6	6.2
Oil, glue, soap, etc.	15.7	6.4
General engineering	30.3	12.3
Motor vehicles	23.5	10.3
Electrical cables, etc.	15.7	10.1
Watches, jewellery, etc.	22.3	15.7
Textile trades :		
Cotton	32.8	30.1
Woollen and worsted	27.7	25.8
Silk	24.0	17.7
Hosiery	14.1	14.9
Tailoring	19.5	14.5
Boots and shoes	26.9	15.9
Bread, biscuits, etc.	13.5	7.3
Cocoa, chocolate, etc.	19.5	12.9
Drink industries	14.0	10.3
Paper	13.6	11.7
Printing, etc.	11.1	8.6
Rubber	20.4	12.8
Railway service	15.8	5.3
Distributive trades	14.8	7.8
Hotels, etc.	19,4	11.8

Source : The Ministry of Labour Gazette, August 1932, pp. 300-301.

The index numbers of unemployment among women and among men in Great Britain and in Germany show irregular fluctuations which can be explained by varying degrees of stagnation in the different branches of industry. For example, the relatively rapid rise in the index number of unemployment among women in Great Britain during the early years of the depression was due to the slump in the textile industry resulting from the difficulties of export to agricultural countries.

The study of the incidence of unemployment in the two sexes gives no idea of the extent to which each sex suffered from the privations resulting from unemployment. As a rule the worker's family as a whole is affected by the loss of employment by any of its members. No statistics can show the distribution of the material and moral suffering over the father of the family, his wife and their children. Many families collapsed under the burden of this distress, but there were also many cases in which family solidarity and mutual help came triumphantly through the sufferings of the depression.

This again is a field that cannot be explored within the framework of the present study. The author has merely referred to it in passing as a hint to readers who might, when interpreting the unemployment statistics given above, see the social problem only through a maze of figures, and therefore be tempted to reduce it to a mechanical formula, ignoring the complexity of human experience.

C.—Hours of Work (Short Time)

When orders begin to be scarce and the undertaking can no longer employ its full staff, the manager has a choice between two measures : to dismiss part of his staff or to reduce hours of work. He may of course combine the two methods. His choice will be dictated by circumstances. It sometimes happens that the reduction of hours of work precedes the reduction of staff : short time first appears and gradually changes into full time unemployment.[1] It may also happen that employers, when the volume of employment decreases, take the opportunity of getting rid of superfluous workers; by combining the reduction of staff with a process of selection they may be able to increase the

[1] This phenomenon was observed for example during the " rationalisation depression " in Germany in 1926. Cf. *Three Sources of Unemployment*, pp. 86-87.

efficiency of their workers and lower the cost of production. At a later date, if orders continue to drop, and if it is no longer possible to dismiss workers without injuring the production process, the employers will spread employment over the remaining workers by reducing hours of work.

There is a fundamental distinction between the reduction of hours of work by means of general legislation or by a revision of collective agreements and the reduction of hours that is forced on an undertaking by a lack of orders. This latter measure is merely a form of distributing unemployment. In that case the reduction generally takes place without any change in the rates of remuneration and is therefore detrimental to the workers, but the latter accept it because the system seems preferable to a reduction of staff and because they hope that a fall in the cost of living will counterbalance their loss of nominal earnings. This explains the paradox that from a historical point of view the reduction of hours of work is a sign of social progress, whereas during the depression the same phenomenon means an increase in the material and moral hardships of the working-class.

Hours of work can be reduced in two ways : the undertaking may remain closed on one or more days of the week or the daily hours of work may be cut down. The first of these forms has certain advantages from the workers' point of view (by saving them the journey from their homes to the factory) and also from the employers' point of view, but it cannot be applied if the volume of employment in various sections of an undertaking decreases to an unequal extent. This distinction between the two forms of short time must be carefully borne in mind when comparing the statistics of different countries.

If the normal hours of work remain unchanged (say 48 hours), the suppression of one or more days will reduce the working week to 40, 32, 24 or 16 hours. The hours worked can thus be easily calculated. The problem is not so simple when the daily hours of work are reduced. The Saturday half holiday, for example, means a reduction in hours of work of three or four hours a week; if combined with the closing of the undertaking daily one hour earlier than usual, it will reduce hours of work by 9 hours in the week. Sometimes the reduction of hours is based on an even more complicated formula.[1]

[1] Cf. ALLGEMEINER DEUTSCHER GEWERKSCHAFTSBUND, Wl. WOYTINSKY : *Der deutsche Arbeitsmarkt*, pp. 63 et seq., 1930, Berlin.

These are all cases of short time in the wide sense of that term. When days of employment and days of unemployment follow each other alternately, unemployment is said to be intermittent. Employers' and workers' organisations and factory inspectors normally record every form of short time, whereas social insurance records refer only to intermittent unemployment. The unemployment insurance scheme may use two methods of registering this unemployment. The figures given in Great Britain show the number of persons who, while belonging to the staff of an undertaking, were not employed on the date to which the record refers. In other countries, such as Belgium, all workers and salaried employees who are idle for some part of the week are shown in the figures. It is obvious that the second method will give higher figures than the first and that the meaning of statistics of short time will not be the same in the two cases.

British statistics show, for example, that on 20 February 1933 there were in Great Britain 2,394,106 wholly unemployed persons, including casuals, and 520,808 temporary stoppages. That means that among the insured population 18.7 per cent. were wholly unemployed and 4.1 per cent. temporarily stopped. If we deduct the wholly unemployed persons (18.7 per cent.), the remainder of the insured population (81.3 per cent.) should have been in employment. But a certain number must be excluded (British statistics assess the proportion at 3.5 per cent.) on account of sickness, etc. The percentage of workers in employment is thus reduced to 78.5 per cent. of the insured population. The fraction (4.1 per cent.) of this total which was not working on 20 February 1933 on account of temporary stoppages represents 5.2 per cent. of the number in employment. In so far as the day on which these figures were collected (20 February 1933) could be considered typical, it follows that during the week or the month 5.2 per cent. of the staff remained unemployed. The average hours of work of the staff were thus reduced as a result of temporary stoppages by 5.2 per cent., or 2.5 hours a week.

If no attempt is made to estimate the other forms of the reduction of hours of work, it will be perfectly correct to add the number (or percentage) of temporary stoppages to the number of wholly unemployed persons: 2,394,106 + 520,808 = 2,914,914 (or 18.7 per cent. + 4.1 per cent. = 22.8 per cent.) in order to obtain the total volume of unemployment in Great Britain on the date in question.

The two figures cannot be added in the same way if the statistics cover all persons who are intermittently employed, some resting on Monday, others on Tuesday, others on Wednesday, etc. The addition of the figures would be still more incorrect if applied to trade union or employers' statistics, which tend to show persons working short time as intermittently employed even if the reduction is only a few hours a week.

Mention must also be made of the various methods of registering short time used by the employers' and workers' organisations in different countries. In Italy the employers' statistics merely indicate the percentage of workers less than 48 hours, 48 hours or more than 48 hours. This distinction is rather vague. A certain number of workers are *normally* employed for only 45 or 46 hours a week under the existing regulations, and they cannot therefore be considered as working short time. Moreover, the extent of intermittent unemployment may vary although the percentage of workers on short time remains unchanged.

Statistics of short time cannot be used for a study of actual hours of work unless they show exactly the number of hours by which the working time of each group of workers is reduced. The simplest method is to classify workers on short time according to their weekly hours of work, as was done for example by the German trade unions. Similar results can be obtained by classifying undertakings in the same order, as is done by the French factory inspectors. In this case, persons employed for 48 hours a week or more are considered as persons in regular employment, and the rest of the workers are shown as being on short time. It is then possible without difficulty to estimate the average working hours of undertakings and the decrease in those hours as a result of short time.

In many cases, short time can be measured by the figure indicating average hours of work, which is obtained by dividing the total number of hours worked by the number of persons employed (this method is used in the United States, the Scandinavian countries, etc.).[1]

If we leave out of account the United States, which will be dealt with later, and consider only Europe, France is undoubtedly the industrial country that has practised short

[1] A similar method is practised in Germany for the reports of industrial undertakings.

time on the largest scale in recent years (cf. Appendix 14 A and diagram XXX p. 158).[1]

At the beginning of the depression, up to about the middle of 1931, the decrease in the quantity of work performed by the staffs of French undertakings was reflected more or less equally by the reduction in hours of work and the decrease in the number of persons employed. During that period, therefore, the number of wholly unemployed persons was reduced to half by spreading employment over a larger number. As the depression grew in intensity, however, the spread-over of employment was not sufficient to prevent the increase of unemployment. During the first half of 1932, there were in France more workers on short time than there were in full-time employment, but that meant merely a reduction of 10 per cent. in the average hours of work, whereas the quantity of work to be distributed over the persons in employment had declined by 25 per cent. This naturally led to a tremendous increase in complete unemployment. During the later phase of the depression, the average hours of work remained comparatively stable at about 93 or 94 per cent. of the average hours in 1930 (or, in round figures, 45 hours a week), whereas the volume of work to be done continued to fall and complete unemployment spread more and more.

It would seem therefore that in France short time, as distinct from complete unemployment, tended to remain below a certain level. This can probably be explained by the fact that the spread-over of employment was restricted to certain branches of industry, and by the fact that when the reduction of hours of work goes beyond certain limits it imposes a burden both on the employers and on the employed, so that some of the latter prefer to draw unemployment benefit in place of remuneration which no longer provides them with a living wage.

Table 19 brings out the varying extent to which short time was applied in different industries in France. By way of example, the table shows the variations in the volume of work performed, in the number of workers employed and in hours of work in the course of a year (from February 1931 to February 1932) in two groups of industries, in the first of which employment was spread over as many workers as possible, while the other retained its normal working hours.

---

[1] Cf. *Three Sources of Unemployment*, in which the subject is fully dealt with.

DIAGRAM XXX.—HOURS OF WORK AND EMPLOYMENT IN INDUSTRIAL UNDERTAKINGS IN FRANCE, BY QUARTERS

(Average for the year 1930 = 100)

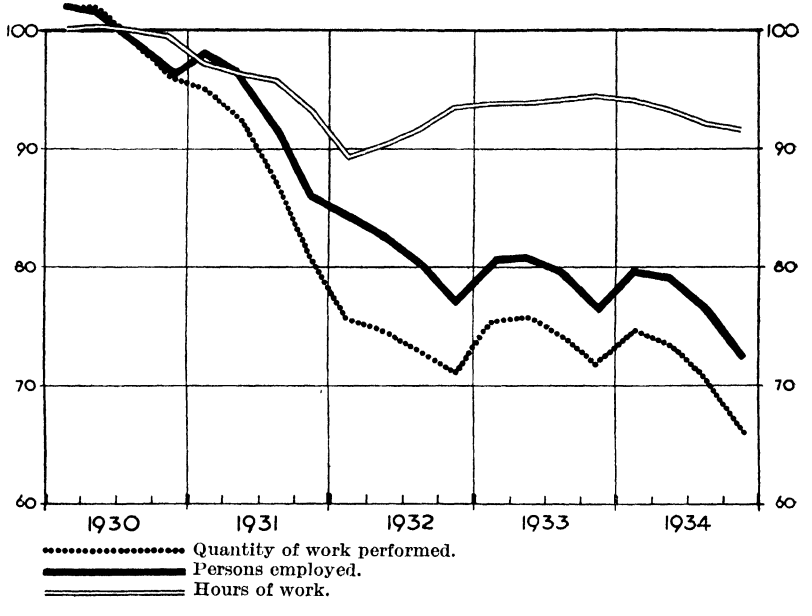


TABLE 19.—VARIATIONS IN EMPLOYMENT AND HOURS OF WORK IN CERTAIN INDUSTRIES IN FRANCE FROM FEBRUARY 1931 TO FEBRUARY 1932

(February 1931 = 100)

Industries	Workers employed	Hours of work	Quantity of work
I. *Industries in which work was spread over :*	February 1932		
Mining	88.9	84.9	75.5
Fine metals	87.6	88.0	77.1
Textile industries	83.0	87.3	72.5
II. *Industries which kept their normal time-table :*			
Chemicals	89.2	99.4	88.4
Clothing	86.1	95.5	82.2
Wood	81.8	94.7	77.5

Source : The statistics on which the calculations are based were published in the *Bulletin de la statistique générale de la France*, April-June 1932, p. 334.

Similar differences in the practice of different industries can be noted in other countries, such as Germany.[1] As far as the author is aware there is no definite evidence in any country to show that this difference depended on technical conditions which made it impossible for certain industries to work short time. On the contrary, the differences seem to be due to divergences in the policy of the employers' and workers' organisations concerned.

In Germany, the comparative volume of short time during the depression was less than in France, but hours of work were considerably reduced in certain industries. In coal mines, for example, the number of workers employed and the volume of work per worker varied as follows :

	Annual average				
Hard coal :	1929	1930	1931	1932	1933
Number of workers employed (in thousands).....	512.7	462.0	365.6	305.4	310.2
Index (1929 = 100).....	100	90	71	60	61
Number of days worked per worker (per quarter)	69.5	64.3	62.8	61.9	61.8
Index (1929 = 100).....	100	93	90	89	89
Lignite :					
Number of workers employed (in thousands).....	84.8	73.6	64.0	57.5	66.4
Index (1929 = 100).....	100	87	75	68	78
Number of days worked per worker (per quarter)	74.0	69.6	68.1	65.5	65.3
Index (1929 = 100).....	100	94	92	88	88

Source : Statistisches Jahrbuch für das Deutsche Reich, 1934, pp. 271-272.

The average number of days worked per quarter in German coal mines were therefore reduced by 11 or 12 per cent. in 1932-1933. Apart from the decrease in the number of days worked, there was a reduction in the normal hours of work as fixed by collective agreement in 1931.

The reports on the working of industrial undertakings bear testimony to the considerable variations in the average length of the working day in German industry as a whole :

	July 1929	July 1930	July 1931	July 1932	July 1933	July 1934
Hours	7.63	7.29	7.11	6.80	7.10	7.31
Index (1929 = 100).....	100	96	93	89	93	96

Source : Statistisches Jahrbuch für das Deutsche Reich, 1932, p. 306, and 1934, p. 304; *Wochenberichte des Instituts für Konjunkturforschung*, Berlin.

[1] Cf. Wl. Woytinsky : " Arbeitslosigkeit und Kurzarbeit " in *Jahrbücher für Nationalökonomie und Statistik*, 3rd Series, Vol. 79, pp. 13-48 (1931, Jena), and " Die Arbeitsstreckung im Lichte der Statistik ", in *Allgemeines Statistisches Archiv*, Vol. 22, pp. 387-408 (1932, Jena).

This is borne out by trade union statistics. At the end of July 1932, the independent trade unions reported that 44.4 per cent. of their members were wholly unemployed and 22.3 per cent. working short time. That means that out of every 100 workers in employment, 40 were working for part of the week only. The average reduction in hours of work of each person on short time was 14.1 hours a week.[1] Spread over all the workers in employment, this would be equivalent to a reduction of 5.6 hours a week or 11.8 per cent. in average hours of work. Of this considerable reduction only a very small fraction (0.3 hours) can be attributed to the revision of the normal working conditions; the rest must be attributed to the spread-over of employment, or *short time.*[2]

Generally speaking, apart from the Codes adopted in the United States and the comparatively insignificant changes in a few collective agreements in some countries, the practice of short time did not lead to any change in the normal working hours. Indeed, it would seem that the possibility of reducing the actual hours of work within the framework of existing regulations fixing the normal week at 48 hours caused the employers and workers to lose interest in the possibility of changing the provisions of collective agreements concerning hours. Great Britain is a typical example of this. At the very beginning of the world depression, in 1930, hours of work in coal mines were reduced by the Coal Mines Act. During the later period of the depression, in 1930 and 1931, when unemployment and short time were increasing, the hours of work tended rather to be extended in any collective agreements that fell due for revision. The opposite tendency did not appear until later, when unemployment had begun to decrease as business revived (cf. Appendix 14 B).

The following are a few typical examples of the reduction of

---

[1] *Gewerkschaftszeitung*, 1932, No. 34, p. 543.

[2] According to the reports of the independent trade unions, the unions were able, in negotiations for the renewal of collective agreements, to obtain the following reductions in hours of work :

7,522,041	hours	per	week	for 2,138,849	persons in 1927
2,172,289	„	„	„	856,363	„ 1928
1,078,732	„	„	„	412,810	„ 1929
230,462	„	„	„	103,049	„ 1930
789,939	„	„	„	261,852	„ 1931

Source : Jahrbuch des Allgemeinen Deutschen Gewerkschaftsbundes, 1929, p. 348, and 1931, p. 266.

The movement slackened just at the time when the practice of short time should have called for a revision in normal working hours.

hours of work that was achieved during the depression by means of short time.

	Annual average				
	1929	1930	1931	1932	1933
Italy :					
Monthly hours of work [1]	182	175	171	169	174
Index (1929 = 100)	100	96.2	94.0	92.9	96.1
Sweden :					
Weekly hours of work	44.1	43.7	42.1	40.1	40.4
Index (1929 = 100).....	100	99.1	95.5	90.9	91.6
Poland :					
Weekly hours of work [2]	44.7	43.7	43.0	40.7	40.9
Index (1929 = 100).....	100	97.8	96.2	91.5	91.5
Hungary :					
Daily hours of work [3]	8.82	8.64	8.57	—	—
Index (1929 = 100).....	100	98.0	97.2	—	—

[1] Fascist General Confederation of Industry.
[2] Undertakings in manufacturing industries with 20 or more workers.
[3] Medium and large industrial undertakings and electrical power stations.

Source : Statistics compiled by the International Labour Office : *International Labour Review*, Vol. XXXI, No. 2, February 1935, pp. 265-288.

The course of evolution in the United States under the codes was very different. The reform carried out by the codes, however, followed on a reduction of hours of work that had already taken place during the earlier phases of the depression in the form of short time. Even before the depression the tendency to reduce hours of work below the figure laid down in the regulations was spreading in United States industry. The National Industrial Conference Board gives the following figures on this subject :

Annual average	Normal statutory hours of work per week	Average actual weekly hours of work [1]
1927	49.5	47.7
1928	49.6	48.0
1929	49.6	48.4

[1] The difference between the average actual hours of work and the normal hours is due in part to the fact that the actual average hours are obtained by dividing the total number of hours of work done by the number of workers on the pay rolls, *including persons absent on account of sickness, holidays, etc.* Any errors that may thus arise should be counterbalanced by overtime. The differences shown in the statistics may therefore be taken as being excessive.

Source : Survey of Current Business, October 1932, p. 20.

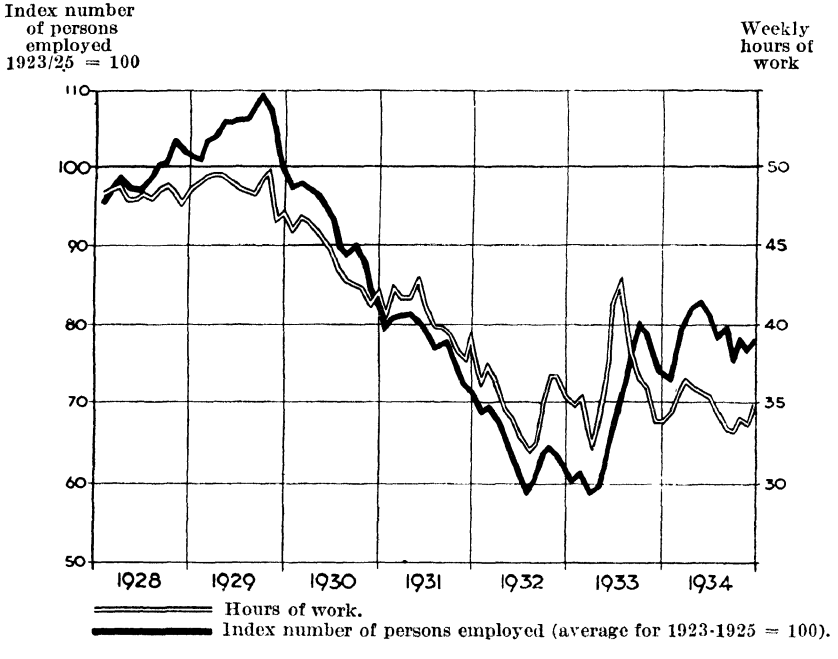
Even during the boom period, therefore, there was a difference between normal hours and actual hours of work of from 1 to 2.4 hours a week. As soon as the depression began industrialists gradually reduced hours of work. This policy was facilitated by the relatively high level of wages, the real value of which was increased by the fall in the cost of living (cf. Appendix 14 C).

The statistics given in table C of Appendix 14 are based on the reports of undertakings in 25 branches of manufacturing industry,

most of them being large undertakings employing between them 840,000 persons in 1929 and about 500,000 during the depression. It cannot be claimed that these figures correspond exactly to the average for industry as a whole in the United States, but they at least reflect the general trend of hours of work in the United States during recent years. It is interesting to compare them with the index number of employment in American industry (cf. diagram XXXI).

The average hours of work, after contracting steadily from month to month (except for a brief interruption at the beginning of 1931),

DIAGRAM XXXI.—EMPLOYMENT AND HOURS OF WORK IN INDUSTRIAL UNDERTAKINGS IN THE UNITED STATES



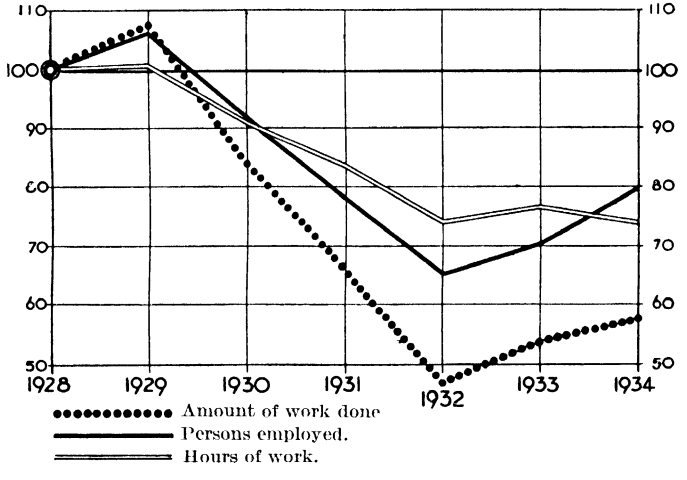
had fallen to 32.1 in the week by July 1932, being a decrease of 34 per cent. as compared with July 1929. At the same period the index number of employment also reached its lowest point, being 40 per cent. below the average for 1928. Only 60 per cent. of the workers in employment at that latter date were still employed in the undertakings in question. This percentage would, however, have been as low as 40 if short time had not been practised. This means that short time reduced by one-third the number of wholly unemployed persons.

During the second half of 1932 the amount of short time began to grow less. When production revived as a result of the expansionist policy of the Government the average hours of work in industry rose to 36.5 in the week. This increase of almost 14 per cent. in the average hours of work would have been looked on as a success if it had not reacted unfavourably on the engagement of supplementary workers. From July to October 1932 the index number of employment (basis : average for the years 1923 to 1925 = 100) rose from 58.9 to 64.4 but it would have exceeded 75 if the average hours of work had remained unchanged. In any case the further collapse of industry early in 1933 reduced the average hours of work again to 32.2 in the week. Up to that date the variations in hours of work were more or less parallel with the variations in the number of workers employed. In the later period during the Roosevelt experiment there was a very marked divergence between the two (cf. diagram XXXI). During the boom in the summer of 1933 the increase in hours of work was relatively greater than the increase in the number of persons employed : from March to July hours of work in manufacturing industries increased from 32.2 to 42.9 in the week, or by 33.2 per cent., whereas the increase in the number of persons employed was only 21.7 per cent. This means that the improvement in production tended first of all to reduce the amount of short time; complete unemployment decreased more slowly. This relationship between the decline in short time and the decrease in full time unemployment was naturally a great disappointment to the country. People asked whether all those sacrifices had been made to revive activity in the factories merely in order to increase the income of those who were in employment without improving the lot of the unemployed. The codes were intended to overcome this difficulty : by reducing the maximum hours of work to 40 in the week in factories and 35 in offices they were intended to reduce the actual working time and prevent any increase in hours of work in the future. Under the codes the average hours of work in industry fell from 43 to 34 or 35 in the week. After the National Recovery Act was repealed, hours of work rose again to 38.8 in December 1935. The index number of employment in manufacturing industries in December 1935 was 84.6 as against 58.8 in March 1933 (average for the years 1923 to 1925 = 100). It would have fallen again to 64.2 if the average hours of work had returned to 48 in the week, and it would have

risen to 100 if hours of work had been restricted to 32 or 33 (without any increase in the volume of employment).

Diagram XXXII shows how the reduction of hours of work checked the fall in employment from 1930 to 1932, how the revival of employment in 1933 was partially prevented by the

DIAGRAM XXXII.—AMOUNT OF WORK DONE, EMPLOYMENT AND HOURS OF WORK IN INDUSTRIAL UNDERTAKINGS IN THE UNITED STATES
(1928 = 100)



extension of hours of work and how in 1934 the United States were able to increase employment to a greater extent than production increased by means of reducing hours of work.

This further reduction in hours of work differs in one essential point from the trend during the first phase of the depression. From 1930 to 1932 hours of work fell at the expense of the workers' earnings; the codes on the contrary increased the hourly rates of wages at the same time as they reduced hours.

D.—Nominal and Real Wages

When the volume of employment declined as a result of the depression, the workers' incomes also dwindled because of the fall in the remuneration per hour or per unit of output. A variety of ways were open to the employers for reducing actual wages :

1. The abolition of bonuses and supplementary earnings and

the reduction of actual earnings to the minimum laid down by the agreements in force;

2. The waiving of the wage rates laid down by collective agreement or by existing wage scales;

3. An increase in the output required of each worker for the same remuneration;

4. The lowering of the rates of wages laid down in wage scales.

Of these forms only the last one is fully reflected in official statistics.

The characteristic feature in the development of wages during the depression is the fall in actual wages as compared with officially recognised rates. Take for example the remuneration of workers in German boot and shoe factories in March 1932 and in March 1928 :

		Actual hourly earnings as a percentage of the average rates fixed by wage scale	
		1928	1932
Men over 21 years.....	Time rates	116.7	108.4
	Piece rates	121.9	112.2
Men from 18 to 21 years ...	Time rates	105.8	99.0
	Piece rates	112.6	97.9
Women over 21 years.....	Time rates	108.6	103.1
	Piece rates	110.3	99.7
Women from 18 to 21 years.	Time rates	105.8	100.6
	Piece rates	115.8	103.4

Source : Statistisches Jahrbuch fur das Deutsche Reich, 1932, p. 272; 1934, p. 275.

Another example may be given to show the systematic departure from minimum wage rates. In the German building trade in August 1932 the actual average wages represented the following percentage of the minimum rates laid down in collective agreements : for adult masons, 98.7 per cent.; for masons from 19 to 20 years, 87.9 per cent.; for adult carpenters, 99.2 per cent.; for carpenters from 19 to 20 years, 92.9 per cent., etc.[1]

It will thus be seen that the variations in the rates of normal or minimum wages laid down by collective agreement do not correspond exactly with the variations in the workers' actual earnings during the depression.

The calculation of actual average wages may on the other hand give a false impression of the actual changes in the workers'

[1] Only exceptionally skilled workers paid at piece rates (which is not a common system in the German building trade) were earning more than the minimum wages prescribed by collective agreement in 1932. (*Statistisches Jahrbuch für das Deutsche Reich*, 1934, p. 274.)

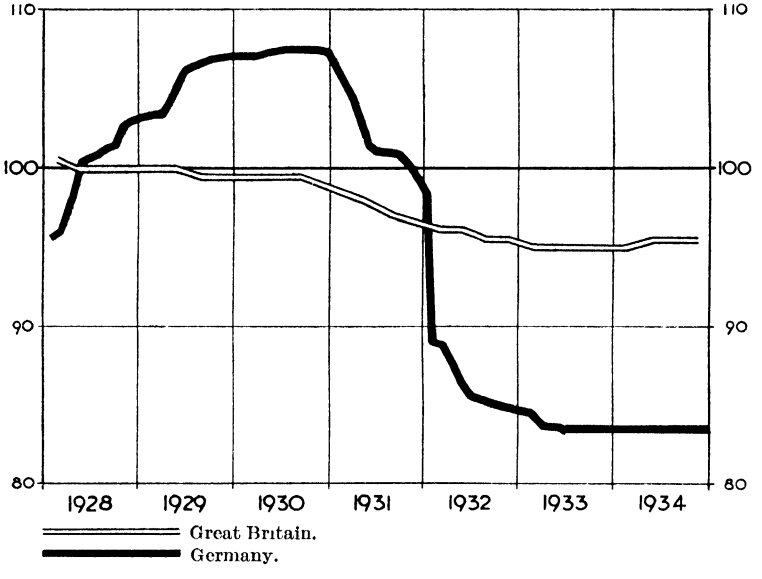
income if these wages refer to a period when there were considerable changes in the staffs of undertakings. This can be made clear by an example. Take a factory that employed a thousand workers before the depression and paid them on the average $1 an hour. In 1932 the same factory employed only 500 workers and its wages costs represented $440 an hour. It may therefore be thought that the average hourly remuneration had fallen from 100 cents to 88 cents, that is by 12 per cent. Such a calculation however would be erroneous. The factory certainly had on its staff workers of varying skill who did not all receive the same amount at the end of the week. Suppose that it employed before the depression 500 particularly skilled workers who received on the average $1.10 an hour and 500 mediocre workers who were able on the average to earn only 90 cents an hour. It is obvious that when the undertaking reduced its staff it would first dismiss the less efficient workers. Consequently those who remained had been earning more than a dollar an hour on the average before the depression; their pay was probably in the neighbourhood of $1.10 an hour. The reduction in the actual wages of the staff of the undertaking was therefore not 12 per cent. but about 20 per cent.

As a general rule the rates of nominal wages laid down by collective agreement reflect the economic and social policy followed by various countries during the depression : in practically every country the Government was able by direct or indirect action to guide the fluctuations in wage rates. The variations in normal wage rates (established by collective agreement) in Germany and Great Britain from 1928 to 1934 represent the two extreme cases of this movement (cf. Appendix 15 A). The difference between the variations in wages in those two countries is distinctly impressive (cf. diagram XXXIII).

Actual earnings during the depression fluctuated more violently than wage rates. These earnings are shown by various statistics : some refer to average hourly earnings, others to daily, weekly, monthly or even annual earnings. In all these statistics except the ones showing the hourly remuneration the changes in the level of wages are closely linked up with the variations in hours of work (short time). In some cases this concomitance may be justified, but for the purpose of the present study, which is to make a clear distinction between fluctuations in the volume of employment and variations in the level of wages, only the sta-

DIAGRAM XXXIII.—INDEX NUMBERS OF AVERAGE WAGE RATES IN GERMANY AND GREAT BRITAIN

(Average 1928 = 100)



tistics of actual average hourly earnings can be used. The movement of hourly earnings in the United States may be taken as an example (cf. table 20).

TABLE 20.—MOVEMENT OF WAGES IN INDUSTRIAL UNDERTAKINGS IN THE UNITED STATES DURING THE DEPRESSION

Actual average hourly earnings of men and women, calculated by the National Industrial Conference Board

(Basis : 1928 = 100)

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1928	99	99	99	100	100	100	100	100	101	102	101	100
1929	101	102	102	102	102	102	102	102	102	102	102	102
1930	102	102	102	103	102	102	102	103	102	102	101	100
1931	100	100	100	99	99	98	98	98	97	97	96	96
1932	92	91	90	89	88	86	84	84	83	82	81	81
1933	81	80	80	80	78	78	79	86	92	94	94	95
1934	95	96	97	100	101	101	102	102	102	103	103	103
1935	102	103	103	103	104	104	103	104	104	104	104	105

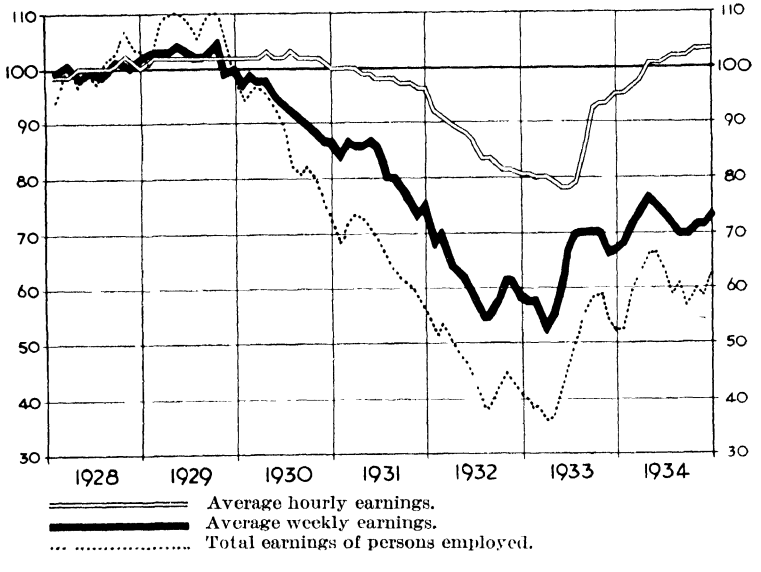
Source : Survey of Current Business, 1932-1936, Washington.

The fall in hourly wages in the United States was not much more violent than in other countries. The lowest point (in June 1933) was 21 per cent. below the average for 1928, or 24 per cent. below the highest point reached in 1929, whereas in Germany wage rates fell to 17.5 per cent. below the 1928 average and 22 per cent. below the highest point in 1930.[1]

What made the position of the workers in the United States particularly serious was the fact that the fall in hourly wages

DIAGRAM XXXIV.—INDEX NUMBERS OF WAGES IN INDUSTRY IN THE UNITED STATES

(Average for 1928 = 100)



coincided with the reduction in the average hours of work and the decrease in the number of workers employed.

In order to assess the social consequences of the fall in wages it is necessary to compare it with the fluctuations in the cost of living. This comparison, common as it is and logical as it may seem, cannot be made without certain preliminary explanations and reservations.

The measurement of the actual earnings of a worker in the light of the cost of-living index means introducing in the calcu-

[1] Cf. Appendix 15 B.

lations the changes that occur in the purchasing power of the money at the worker's disposal. The result obtained indicates the fluctuations in the *real earnings* or the standard of living of the worker. But if this method is applied to the assessment of the rates of real hourly wages, the resulting figures do not indicate the worker's purchasing power or the standard of living of his family, since both of these depend essentially on the degree of employment, that is, on the number of hours actually worked during the month.

The index number of wage rates divided by the cost-of-living index means little in itself, if the employment situation is not taken into consideration. It has little meaning for the worker, because he cannot sell his working ability to his employer in sections; he must sell it as a whole, and if only part of it is used he has no means of utilising the remainder. Moreover, this index number does not correspond to the actual expenditure of the employer per unit of labour, which can be measured only by comparing the nominal hourly wage with the real value of the money owned by the employer and not with the cost-of-living of a working-class family. Subject to this reservation, a comparison of wage movements with the fluctuations in the cost of living is of undoubted interest (cf. Appendix 15 B).

Table B of Appendix 15 gives a survey of the position in some twenty countries of widely different economic structure, starting with the most highly industrialised ones (such as Great Britain and Belgium) and ending with the purely agricultural countries (such as Latvia and Estonia). The left-hand side of the table shows the index numbers of nominal wages or of wage rates or of the average remuneration per hour, per shift, or per day. Most of these index numbers fell steadily during the whole period of the depression, but the fall was neither sudden nor violent. The average for 1933 falls below the 1929 level

by more than 20 per cent. in Poland and Germany;
by from 16 to 20 per cent. in Latvia, Australia, the United States and Italy;
by from 11 to 15 per cent. in Canada and the Netherlands;
by from 6 to 10 per cent. in Belgium and Estonia;
by 5 per cent. or less in Great Britain, Switzerland and Sweden.

In France, Czechoslovakia and Denmark there was an increase of 2 per cent. in nominal wages.

This makes a striking contrast with the right-hand side of the table, which shows the movement of wages in the same countries divided by the cost-of-living index. In this case all the index numbers follow an upward trend, the amount of the increase in most cases being from 8 to 12 per cent. (for instance, in Great Britain, Belgium, France, Czechoslovakia, the United States, Canada, Sweden, Norway, Denmark and Poland). In general, in all these countries throughout the whole of the depression the index number of nominal wage rates remained higher than the cost-of-living index, and the divergence between the two increased with astonishing regularity as the depression became more severe.

May one then conclude that in all these countries real wages increased during the depression to the extent shown by the index numbers on the right-hand side of the table? Such a conclusion would be false, because neither the rates of nominal wages nor the average hourly or daily earnings divided by the cost-of-living index reflect the changes in real wages.

Subject to all the necessary reservations, and taking account of what has been said above, it must be admitted that what is usually described as the "real hourly wage" tended to rise rather than fall during recent years. This phenomenon is worthy of note, for it is extremely important. It proves, for instance, that the quantity of goods received by the wage earner for every unit of work performed increased as a result of the depression, whereas the actual remuneration for labour throughout society as a whole showed the reverse tendency. One must therefore conclude that the depression leads to an increase in the worker's share in the product of his labour.

This is no new conclusion : numerous economists have studied the phenomenon and even deduced a sort of law governing the variations in wages during the business cycle. When the problem is considered, however, from the point of view of the social consequences of the depression, the complexity of the phenomenon and the difficulties in the way of explaining it become more evident. The puzzle with regard to the increase in real wages during the depression is the source from which the increase came. One is tempted to ask whether there is some material fund which supplies the money. Theories of wages do not provide the necessary information on this point, and the question must therefore be considered in some detail.

The depression did not put a complete stop to technical pro-

gress, but progress became slower because investment ceased. At the same time, the selection of labour was counterbalanced by the disorganisation of undertakings and the incomplete utilisation of their plant. From this point of view, therefore, there is no reason to expect any appreciable increase in the earnings of the workers.

It would be strangely mistaken to imagine that the depression could alter in the workers' favour the ratio in which labour and capital share the value of what is produced. It is obvious that this ratio must be determined in the main on the comparative strength of the two parties concerned. The working class, crushed by unemployment, divided by schisms and living in a state of fear, could scarcely have been able to force any concession from the employers. On the contrary, the heads of undertakings were in a position to impose their will on the workers.

It follows that the increase in the rate of real wages must have been paid for by some other party. In the light of the study of the structure and fluctuations of national income in the first part of this volume, it is quite easy to discover this third party and to trace the means by which real wages per hour or per unit of output could and did increase during the depression.

The divergence between variations in wages and changes in the cost of living is due in this case not so much to the social struggle between employed and employers as to the relationships between the various sections of the national economic system. The total income of the employed population determines the amount of its expenditure (on food, housing, clothing, etc.). This represents the demand of a large section of the market. Supply can adapt itself only slowly and with difficulty to changes in that demand. Neither the supply of foodstuffs nor the number of houses available can decrease because of a decline in the purchasing power of the consumers. Such adaptation as takes place is restricted to one section of consumers' goods (manufactured articles, clothing, etc.).

But the purchasing power of the employed population is reduced not only as a result of the fall in wages but still more as a result of the decrease in the volume of employment. As this decrease in employment precedes the fall in the supply of commodities, it leads to a decline in the cost of living. The unemployed and those on short time have good reason for asserting that the cost of living is still too high, but the index number never-

theless tends to fall to a greater extent than the average rate of wages.

It should be pointed out that this relationship cannot be explained by the reduction in the cost of production of commodities as a result of the decrease in wages. The experience of recent years shows that it is not wholesale prices that are affected in the first instance by the general revision of wage rates, but retail prices, prices on local markets and, more particularly, the prices of articles of daily consumption. If the worker is short of money, the peasant has no alternative but to reduce his prices.[1]

This brings us back to the phenomenon already considered in the first part of this volume : it is the agricultural section of the national and the world economic system that bears the brunt of the loss resulting from the disorganisation of the industrial section and the fall in the purchasing power of the urban population.

E.—Unemployment Relief and Other Supplementary Income

It has been seen that neither wage rates nor the actual hourly earning of workers fell during the depression to the same extent as the cost of living. In every country, indeed, the purchasing power of hourly wages increased to an appreciable degree. Those workers who were able to remain in regular employment throughout the depression naturally gained thereby, but unfortunately the number of these privileged workers and private employees was not high. There were millions of workers on short time or intermittently unemployed whose loss of employment outstripped the advantages they gained from the fall in prices, and there were in addition tens of millions of wholly unemployed persons. This brings us to the heart of the social distress created by the depression. How were those persons who had lost their employment and their regular source of income able to survive during all these years?

In the first place, a tribute must be paid to the value of unemployment insurance and public relief for the unemployed. Compulsory insurance against unemployment exists in nine countries

---

[1] Cf. following chapter, p. 194.

and voluntary insurance in ten others.[1] According to an estimate made by the International Labour Office, the total number of workers covered by these systems in 1933 was about 42 millions. In addition, relief was granted to the unemployed by the public authorities (for instance, in France) or by private charitable organisations (as in the United States up to the year 1932).

In the later phases of the depression, however, when distress was more widespread than ever in the countries affected, only a fraction (usually the minority) of the unemployed could still obtain regular benefits.

Of the important industrial countries of Europe, Great Britain is undoubtedly the one which found the most satisfactory solution for this problem. The number of unemployed persons (wholly unemployed and temporarily stopped) in Great Britain, in round figures, was as follows :

	1929	1930	1931	1932	1933	1934
Annual average (in thousands).....	1,262	1,994	2,716	2,847	2,567	2,171

If the average earnings of a British worker in steady employment be taken as falling between £100 and £110 a year, and if we exclude workers who were temporarily stopped and whose loss of nominal wages was, to some extent at least, counterbalanced by the fall in the cost of living, the loss of wages of the working class in Great Britain as a result of the depression may be assessed as follows :

	1930	1931	1932	1933	1934
In millions of £.....	47-51	113-124	128-141	112-123	81-89

The total amount of benefits (unemployment insurance and relief) paid to the unemployed varied as follows during the depression :

	1930	1931	1932	1933	1934
Year ending 31 March (in millions of £)....	53	102	123	118	102

Source : Surveys of " Expenditure on Public Social Services ", published in *The Ministry of Labour Gazette*, 1931-1935.

[1] The countries in which insurance is compulsory are : Germany, Great Britain, Italy, Austria, Poland, Switzerland (13 cantons), the Irish Free State, Bulgaria and Australia (Queensland).

In the United States the Social Security Act was passed in 1935, urging the various States to introduce compulsory unemployment insurance. The Act provides for a tax on employers as from January 1936 and unemployment compensation as from January 1938.

Voluntary insurance is in force in Czechoslovakia, Belgium, the Netherlands, Sweden, Denmark, Switzerland (11 cantons), and, in a less highly developed form, in France, Spain, Finland and Norway (Cf. *I.L.O. Year-Book 1934-35*, p. 297).

As compared with the year 1 April 1929 to 31 March 1930, the increase in the amount of benefits received by the unemployed is as follows :

	1931	1932	1933	1934
Year ending 31 March (in millions of £).....	+ 49	+ 70	+ 65	+ 49

It will thus be seen that by transferring a fraction of the national income it proved possible to restore to the unemployed almost half of the amount they lost in wages and salaries. It is true that a fraction of the amount transferred came from the earnings of workers in regular employment, but of the £500 millions (in round figures) distributed to the unemployed during the depression, about 80 millions were advances by the Treasury by means of a loan and only a third of the remaining 420 millions came from the wages of insured persons. There was, therefore, the large sum of about 360 millions to be obtained from other sources than current labour income.

Apart from the magnificent effort made by the United States in the New Deal, none of the important industrial countries were able to maintain anything like this standard.

It is true that Germany also spent large sums on relief to the unemployed, but it did not have the necessary resources to deal with the distress, which was much more pronounced than in Great Britain, and its system of relief to the unemployed grew steadily weaker as unemployment increased. At the beginning of the depression, Germany had an unemployment insurance system of which it could legitimately be proud : there may have been invisible unemployment in the country, but it was not very extensive, and the great majority of registered unemployed persons received regular benefits. The depression, however, destroyed the system, and in 1932 less than 10 per cent. of the unemployed were still receiving regular unemployment benefits (cf. table 21).

An official report exists in which the sums deducted by the German Government from workers' incomes are compared with the allowances paid to the unemployed and to members of sickness and invalidity insurance schemes (cf. table 22).

TABLE 21.—DISTRIBUTION OF THE UNEMPLOYED IN GERMANY ACCORDING TO THE FORM OF RELIEF GRANTED

Date	Total number of unemployed persons (including invisible unemployment)	Number of unemployed persons who			
		received allowances			received no allowances
		from unemployment insurance	from emergency relief	from Poor Relief	
	Absolute figures (in thousands)				
August 1929.....	1,753	726	157	195	675
„ 1930.....	3,715	1,507	441	541	1,222
„ 1931.....	5,768	1,282	1,095	1,131	2,260
„ 1932.....	7,590	697	1,295	2,030	3,568
	Percentages				
August 1929.....	100	41.4	9.0	11.1	38.5
„ 1930.....	100	40.4	11.8	14.5	33.3
„ 1931.....	100	22.2	19.0	19.6	39.2
„ 1932.....	100	9.2	17.1	26.7	47.0

Source : With regard to the method by which these figures were calculated, cf. Wl. WOYTINSKY : " Der deutsche Arbeitsmarkt in der Krise " in *Schmollers Jahrbuch*, 1933, Munich and Leipzig, Vol. 3, pp. 91-116.

TABLE 22.—DEDUCTIONS FROM LABOUR INCOME AND ALLOWANCES TO UNEMPLOYED, SICK AND DISABLED WORKERS IN GERMANY

(In millions of RM.)

Year	Deductions from labour income			Allowances to the unemployed	Social pensions and assistance to the sick and indigent
	Direct taxation	Payments to social insurance	Total		
1928	1,433	2,439	3,872	1,059	2,736
1929	1,407	2,650	4,057	1,424	3,014
1930	1,325	2,553	3,878	2,330	3,042
1931	1,131	2,257	3,388	2,932	3,024
1932	1,249	1,716	2,965	2,927	2,622
1933	1,520	1,681	3,201	2,227	2,598

Source : Vierteljahrshefte für Konjunkturforschung, 1934, Vol. 4, A, p. 156.

The allowances and pensions paid to the workers (including unemployment benefit) exceeded the sums directly deducted from earnings by the State by the following amounts :

381 million RM. in 1929
1,494 „ „ „ 1930
2,568 „ „ „ 1931
2,584 „ „ „ 1932
1,624 „ „ „ 1933

The additional sum in excess of the 1929 figure transferred to unemployed, disabled and sick workers in 1930 was about 1,100 million RM.; in 1931 and 1932 it was about 2,200 million RM., and in 1933, 1,200 million RM. During the same period, labour income in Germany developed as follows :

	1929	1930	1931	1932	1933
Labour income :					
In thousands of millions of RM....	43.0	39.9	33.4	25.7	26.0
In thousands of millions of "1928 RM."	42.5	41.0	37.3	32.3	33.3
Decrease in labour income as compared with 1929 :					
In thousands of millions of RM....	—	3.2	9.7	17.3	17.1
In thousands of millions of "1928 RM." [1]	—	1.4	5.2	10.2	9.2

[1] Converted on the basis of the cost-of-living index.
Source : Statistisches Jahrbuch fur das Deutsche Reich, 1934, p. 501.

In 1930, the supplementary income transferred more or less counterbalanced the real loss of normal wages and salaries. In 1931 it was equal to 40 per cent. of that loss; in 1932, to 22 per cent., and in 1933 to only 14 per cent.

For the United States no statistics are available to show the number of unemployed persons in receipt of relief during the depression years, but it has been estimated that the total amount spent out of public funds and by private charity in relief to the unemployed was about 85 million dollars in 1929, 150 millions in 1930, 300 millions in 1931, and 500 millions in 1932.[1] These figures may be compared with the decrease in the earnings of the working classes during the depression.

	1929	1930	1931	1932	1933
Labour income :					
In thousands of millions of dollars.	51.1	46.8	39.4	30.6	29.1
In thousands of millions of "1929 dollars" [1]	51.1	48.5	45.1	38.8	38.1
Decrease in labour income as compared with 1929 :					
In thousands of millions of dollars.	—	4.3	11.6	20.5	22.0
In thousands of millions of "1929 dollars" [1]	—	2.6	6.0	12.3	13.0

[1] Converted on the basis of the cost-of-living index.
Source : Survey of Current Business, August 1935, p. 16. Cf. the First Part of this study.

[2] INTERNATIONAL LABOUR OFFICE : *Social and Economic Reconstruction in the United States.* Studies and Reports, Series B, No. 20, Geneva, 1934, p. 55.

Labour income in the United States decreased by 12,300 million dollars (at 1929 purchasing power) from 1929 to 1932, and this tremendous loss was supposed to be met by the 500 million dollars distributed to the unemployed!

It should also be mentioned that many countries were obliged during the depression to adopt a means test, to reduce the duration of relief, to refuse benefits to certain groups of unemployed persons (e.g. married women), to decrease the State contributions to trade union unemployment funds, and to leave duly insured unemployed persons to obtain assistance from charitable institutions.[1] With a few rare exceptions, unemployment insurance systems were able to withstand the first phase of the depression, but they were entirely swamped by the extent of the distress in the later period. This brings us back to the question already mentioned: how were the unemployed able to live during the depression, particularly during the period when poverty was most widespread and when the system of relief was working in a less satisfactory manner than ever?

There have not been very many comprehensive enquiries into the conditions of life of the unemployed, and the results are sometimes open to criticism. The purely statistical method of trying to establish average figures based on the law of large numbers can give no solution of the problem. More information can be obtained from the intensive method which deals with individual cases and studies them as such. Enquiries of this kind were made in Germany (by various trade unions of workers and salaried employees), in Belgium, Poland, Czechoslovakia, the Netherlands, the United States, etc. All of these enquiries noted a decline in the material standard of living of the unemployed workers: a shortage of food, inability to renew their clothing, etc. The enquiries were unanimous in emphasising the disastrous effects of unemployment on the morale of the workers affected. In the present study, however, it is not so much that side of the problem that is of interest but rather the question of the income of unemployed families.

The Belgian enquiry into unemployment in Antwerp pointed out that none of the unemployed persons covered by the enquiry

---

[1] Cf. *I.L.O. Year-Book 1933*, pp. 239-248. No mention will be made here of the new methods to deal with unemployment adopted during the later years of the depression, such as the Roosevelt experiment, the organisation of supplementary employment in Germany, etc.

was in receipt of any supplementary income from hawking or any other source. All these persons were living on the allowances they received, and the incomes of the families covered by the enquiry varied between 55.3 and 10.4 per cent. of their normal incomes.[1] This conclusion seems to the present writer to be somewhat improbable : either these unemployed families were surprisingly passive in accepting the poverty which had overtaken them, or else they had some reason for not wishing to divulge the whole of their resources to the investigators.

The Statistical Office in The Hague undertook an enquiry in the winter of 1932 into the conditions of life in the households of organised workers who were unemployed and in receipt of relief. The households in question were expected to have no source of revenue other than the relief. It proved impossible, however, to maintain this condition, for during the enquiry it was found that most of the households (76 out of 90) had other income, the amount of which would have had to be excluded from the results of the enquiry. The report in this case merely states that this other income did not exceed 9.1 per cent. of the total.[2] It is safe to assume that the percentage would have been higher if the condition mentioned above had not been laid down at the outset and if the unemployed persons had not been selected on the basis of three criteria : (1) that they were in receipt of relief; (2) that they were organised; and (3) that they had no income other than the relief.

The Polish enquiries covering unemployed persons of various occupations in Warsaw, Lodz, the district of Lodz and Silesia gave particularly impressive conclusions. The enquiry carried out by the Institute of Social Economy in Warsaw, for example, revealed the fact that only 8 per cent. of the unemployed were in receipt of public relief of one kind or another. The chief means of existence of these persons were casual labour, small loans and charity.[3] According to the Polish enquiries, the life of unem-

[1] Guillaume JACQUEMYNS : *Enquête sur les conditions de vie des chômeurs assurés. Le budget de dix-huit familles de chômeurs dans l'agglomération anversoise en avril-mai 1932*, Liége, 1933.

[2] *Onderzoek naar de levensomstandigheden van ondersteunde gezinnen van werklooze georganiseerde arbeiders te 's-Gravenhage volgens hun ontvangsten en uitgaven gedurende het tijdvak October t./m. December 1932*, p. 32, 's-Gravenhage, 1934.

[3] INSTYTUT GOSPODARSTWA SPOLECZNEGO : *Pamietniki Bezrobotnych*, Warsaw, 1933. Cf. also J. ROSNER : " An Enquiry into the Life of Unemployed Workers in Poland ", *International Labour Review*, Vol. XXVII, No. 3, March 1933, p. 378.

ployed persons was as follows : " Men were earning as a rule only a sixth or even a tenth of their normal earnings and only by casual work. Women had generally to supply the household income by doing laundry work, sewing, gardening or household tasks, and earned at least as much as their husbands. The other members of the family were also obliged to seek employment, such as unlicensed street trading, running errands, etc."[1] As a rule, the income of the unemployed persons covered by this enquiry consisted not so much in insurance benefits as in private relief or casual employment. Poverty compelled them to sell their personal effects and their furniture or to sublet corners of their room or even their beds.[2]

The situation described by the Polish enquiries would seem to be more typical of the recent depression than the somewhat incomprehensible behaviour of the unemployed persons in Antwerp.

The present writer made an enquiry into the conditions of life of the unemployed in Germany, the conclusions of which, as far as he is aware, have not been contested. In August 1932 there were in Germany, in round figures, 3.6 million unemployed workers who were not in receipt of any relief, 3.3 millions who received only reduced benefits, and 700,000 who were really supported by unemployed insurance.[3] It seems a miracle that these millions of men and women were able to exist. In order to explain the miracle, an attempt must be made to describe the state of unemployed families. Failing any direct indications, it has been assumed that unemployed persons can be divided into groups according to their family situation in more or less the same proportions as the employed workers covered by the 1925 census, which would be as follows [4] :

	In millions
Workers with no family	1.5
Heads of families :	
Without other earners	1.5 – 1.7
With other earners	1.6 – 1.8
Members of the family assisting the principal wage earner :	
In workers' and salaried employees' families	2.1
In other families	0.8
Total...	7.6

[1] Halina KRAHELSKA, Stefan PRUSS : *Zycie bezrobotnych* (Badania ankietowe), Warsaw (Institut Spraw społecznych), 1933, pp. 105-6.

[2] *Ibid.*, p. 108.

[3] Cf. table 21, p. 175.

[4] Wl. WOYTINSKY : "Der deutsche Arbeitsmarkt in der Krise ", in *Schmollers Jahrbuch*, Munich and Leipzig, Vol. 3, p. 105.

This distribution cannot claim to be really accurate, but it at least shows the extent to which unemployed persons are attached by family ties to those in employment. It is true that in Germany in 1932 there were examples of whole families being out of employment, whereas, when business was flourishing, several members had been wage earners. There were other cases in which the subsistence of whole families depended on the earnings of a young man or a girl working short time. On the other hand, there were very numerous cases in which workers who had been able to remain in regular employment saved the lives of other members who were unemployed. There was, therefore, in Germany an invisible distribution of the burden of unemployment over working-class families. When the depression was at its worst, this method of relieving unemployment was probably more important than the action of the public authorities.

The full importance of the assistance given to the unemployed by other members of their family can be appreciated when it is remembered how the family budgets of workers and salaried employees are made up. Numerous enquiries in different countries all go to show that the wages or salary of the father of a family do not usually constitute the sole income of the household; there are generally other earnings (cf. Appendix 16).

Although during the depression there was thinly disguised or unconcealed hostility between the unemployed and those in employment when they met at the factory gates, there was a spirit of unity when they came together as a family.

There was another aspect of this mutual assistance within the family. The burden of unemployment was spread over a larger number of persons. The workers who were still working full time and whose real income had increased on account of the fall in the cost of living had to provide for the subsistence of relatives or comrades who were unemployed. Moreover, this system of mutual aid was not restricted to the families of workers or salaried employees. In many cases, unemployed workers could find a refuge with their parents living in the country at perhaps no great distance. In the United States, for example, there was a veritable exodus of urban unemployed workers to rural districts.[1] They were not in search of paid employment in the country but merely seeking the hospitality of their parents. In such a case,

[1] Cf. below, p. 216 et seq.

it was natural for the unemployed worker living at home to use his spare time in some useful manner in the work of his parents' household. This assistance was all the more important because it sometimes enabled the peasant to dismiss one of his wage earners, and this naturally increased the volume of unemployment among agricultural workers.

No international statistics are available concerning this phenomenon and it is impossible to assess its extent in different countries. Mention may be made however of the evidence of Mr. Maurette as to the large-scale exodus of Japanese unemployed workers to their homes in the country during the depression.[1]

In the case of working-class families in large towns, the result of the unemployment of the principal or other wage earner and the necessity for helping those who were unemployed in the family meant an increase in the amount of work that had to be performed by the housewife. What was definitely mentioned in the report on the Polish enquiry referred to above doubtless took place in more or less every country. Not only was the wife obliged to seize every opportunity of earning some money, but she also had to make ends meet on a reduced budget. If no new clothes could be bought, the old ones had to be repaired; if a corner of the dwelling or a bed were let to a lodger, his wants had to be attended to; if the basket of provisions brought back from market was less well filled than formerly, all the more work was required to produce an adequate meal. This meant an enormous increase in the amount of housework as the result of the depression. There was a kind of return to a system of natural economy within the family, which was a consequence of

---

[1] Fernand MAURETTE : *Tour de Pacifique*, Paris, 1934, p. 102.
The International Institute of Agriculture, in its survey of the agricultural situation in 1931-32, refers to the return to the land under pressure of the industrial depression and unemployment in the following passage : " With the progress of unemployment in towns and industrial centres, especially in those countries in which there either does not exist an organised machinery of unemployment relief or where the financial position does not permit such relief to be given on a sufficiently large scale in the form of public work or subsidies, and where the Government and local administrations are compelled to meet the situation without incurring too great an expenditure, there are distinct signs of an exodus of urban population in search of subsistence on the land. When the problem of existence for millions of people in all the industrialised countries of the world is reduced to its simplest terms and actually resolves itself into the question of escaping starvation by employing one's enforced leisure in growing the food required for immediate consumption, such a return to the land and to farming is bound to take place. " (*The Agricultural Situation in 1931-32.* Rome, 1933, p. 49.)

the disorganisation of the national economic system and, at the same time, a cause of further progressive disorganisation.

Mention should be made also of another source from which the unemployed population tried to obtain means of subsistence: gardening, casual labour, hawking, street trading, and various errands and services. As we are dealing strictly with the economic aspect of the question, no mention will be made of the supplementary earnings from begging or prostitution, of which mention is made in the reports on certain enquiries into the conditions of the unemployed.

In a country in which a large fraction of the population is excluded from the normal economic life of the community, it is natural that irregular production and consumption should go on side by side with the officially recognised national production and consumption. Work is performed, the conditions of which are not in accordance with any law, and there is consumption which is never recorded in statistics. The work of the unemployed for the unemployed is only one special aspect of this state of affairs; from the economic and social point of view the re-engagement of a few unemployed workers under normal conditions would certainly have been preferable to all the (often very strange) systems that were invented to take the place of regular employment. It was only natural that invisible unemployment should give rise to invisible work, which could not be supervised and which did not create a volume of purchasing power equivalent to the services rendered. It is certainly not the unemployed who can be blamed for their efforts to escape from hunger, even if those efforts disorganised the market.

This phenomenon has not been adequately studied, and no general conclusions can be drawn from the above observations. These remarks do, however, apply to Germany and the United States, which were the two large countries that suffered most severely from unemployment. Millions of unemployed workers did not remain idle, but, having no regular employment, accepted any work they could get and any remuneration that was offered. This system—if one can speak of a system when the state of affairs was so chaotic—was possible only as the result of the community spirit within the family, whereby the earnings, often ridiculously small, of parents and children were pooled so as to enable the family at least to avoid starvation.

There is no doubt that the situation was quite different in

Great Britain, where the depression did not give rise to an excessive volume of unemployment, where unemployment insurance survived the strain placed upon it and where wages remained relatively high. In the other countries of the world, the consequences of economic and social distress can be seen in a variety of shades. The two types mentioned above were the extreme cases between which all the others were ranged.

F.—Workers' Organisations and Labour Disputes

The influence of the depression on workers' organisations was not the same in every country : in many of them the membership of the trade unions, their income and their activities declined. This rule, however, was by no means general; there were just as many cases of steady development of the trade unions notwithstanding the depression.

When considering trade union statistics covering the period of the depression, account must be taken of the method by which they are compiled. As a general rule the reports of the trade unions show their numerical strength according to the number of members who pay contributions. The amount of these contributions, however, is not the same in every country or in every occupation. Each trade union has its own method of fixing and collecting contributions. In practically every case extensive concessions were made to the unemployed, who either paid negligible contributions of a purely symbolic nature to show that they were still members of the union, or who were exempt altogether even from this formality. The choice between these two systems was made on psychological grounds. The trade union showed consideration for the mentality of the unemployed and for any complaints they might have to make, and it wished to spare them the necessity for deciding themselves whether they would remain members or not. Moreover, it is not in the interest of a trade union to broadcast any decrease in its membership. It rather waits in the hope of a revival of activity in the more or less near future and deals kindly with the unemployed so as to facilitate their return to the organisation when they again find employment.

The distance which trade unions go in this direction may vary very considerably. For years they may refrain from removing unemployed workers from their list of members, so that they may

be reckoning in their membership persons who have long ceased to have any connection with the organisation. In Germany, for example, it was found that the percentage of unemployed persons among trade union members increased during the depression, not only because of the growth of unemployment but also because the trade unions kept on their books all the unemployed persons who had formerly been members, whereas the number of members in employment was declining.[1]

Sooner or later, however, any organisation must revise the list of its members. When that happens, the unemployed are the first to be deleted from the register. In this case, the number of organised workers does not decrease gradually but falls suddenly, and the fall is accompanied by a decline in the percentage of the unemployed workers which does not represent any real improvement in employment conditions in the country.

Other sources of uncertainty as to the situation of workers' organisations are the amalgamation of unions, changes in their political affiliation, etc. The countries with the best trade union statistics include Great Britain, Germany (up to 1933), Belgium, the Netherlands, Austria (up to 1933), the Scandinavian countries and the British Dominions. In the case of the United States, information is supplied by the reports of the American Federation of Labor.

In Appendix 17 figures are given not only for the above countries but also for some others for which statistics—sometimes approximate—of trade union membership exist.

The table does not contain countries with powerful trade unions controlled by the State (the U.S.S.R. and Italy) because the number of members does not vary to any great extent with changes in the volume of business activity. It has also been thought desirable to exclude countries in which the trade union movement has not yet reached a stable form and in which the membership of workers' organisations fluctuates very considerably in accordance with political vicissitudes. Moreover, as this does not claim to be a complete statistical survey but simply the selection of some typical examples illustrating the general trend in the development of workers' organisations during the depression, no mention is made of countries in which the trade unions are numerically unimportant.

---

[1] Cf. *Gewerkschaftszeitung*, Berlin, 1932, No. 26, p. 411; No. 43, p. 683.

At the head of the list comes Germany, which had the largest trade unions before the depression and where the workers' organisations suffered most severely from the depression. Until the end of 1931 the decline in the membership of the unions was restricted to the independent unions belonging to the A.D.G.B. (*Allgemeiner Deutscher Gewerkschaftsbund*—General Confederation of German Trade Unions). During the first two years of the depression, this organisation lost 813,000 members, or 16 per cent. of its membership. During 1932, when unemployment reached its maximum, there was a further decline in membership of over 500,000 [1], so that by the end of that year the Confederation had only 3.6 million members. As the percentage of unemployed persons among the members of the Confederation at that date was 44 per cent., there were about 2 million members in employment of whom 800,000 were working short time and only 1,200,000 were in regular employment. The active strength of the organisation was thus reduced to a quarter of what it had been immediately before the depression.

On the other hand, the AfA (*Allgemeiner freier Angestelltenbund* —German Federation of Salaried Employees, which belonged to the same trend of trade union thought and held the same political views as the A.D.G.B. with which it was organically linked up) would seem to have been spared by the depression, for it kept its membership practically intact. The reason was that salaried employees, and more especially the employees of public administrative service who were members of this Federation, were relatively secure in their employment and did not suffer in the same way as factory workers.

The same explanation can be given of the changes in the membership of the denominational trade unions in Germany. The Catholic unions, which recruited most of their members from among workers in mines and the metal industries in the Rhineland, suffered heavy losses, whereas other denominational unions, most of whose members were commercial or bank employees, were able to resist the depression.

---

[1] There are no complete statistics of trade union membership in Germany at the end of 1932, but the monthly reports of the A.D.G.B. concerning unemployment among the members of the affiliated unions contain indications as to membership. The numerical strength of the organisations which supplied these trade union unemployment statistics fell from 3.6 millions in December 1931 to 3.1 millions in December 1932. The losses of all the trade unions affiliated to the A.D.G.B. must have been greater.

When assessing the strength of the German trade unions during the depression, one must bear in mind the distribution of the workers according to their degree of employment.[1]

The most important trade unions in Germany were crushed by the depression before the new regime put an end to their existence.

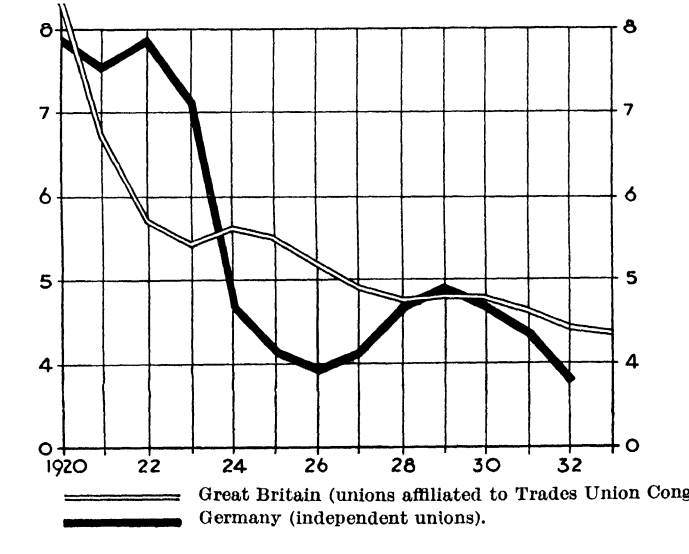
In Great Britain the workers' organisations were able to resist the depression more successfully. From 1929 to 1932 the registered trade unions lost 416,000 members, or 8.5 per cent. The decline that continued after 1932 was still appreciable, but it must be remembered that there was a downward trend in trade union membership in Great Britain as early as 1920, as is shown by the following figures :

Trade Union Membership in Great Britain (in thousands)

1920	8,346	1927	4,918
1921	6,631	1928	4,805
1922	5,624	1929	4,856
1923	5,428	1930	4,839
1924	5,543	1931	4,621
1925	5,505	1932	4,439
1926	5,218	1933	4,383

Source : The Ministry of Labour Gazette, October 1934, p. 352.

DIAGRAM XXXV.—FLUCTUATIONS IN TRADE UNION MEMBERSHIP IN GREAT BRITAIN AND GERMANY



[1] Cf. pp. 148-149.

Apart from the sudden drop in membership after 1920, the course of development during the depression was not very different from that in the preceding period. This makes a striking contrast with the situation in Germany, where the sudden violent drop in trade union membership followed a period of growth (cf. diagram XXXV).

A careful study of the development of trade union membership in Great Britain reveals one curious feature: the loss of membership was restricted entirely to the unions of workers in mining and manufacturing industries, whereas occupations in transport, commerce and services of all kinds show no appreciable decline in trade union membership (cf. table 23).

TABLE 23.—DISTRIBUTION OF THE MEMBERS OF BRITISH TRADE UNIONS AFFILIATED TO THE TRADES UNION CONGRESS

(In thousands)

	1929	1930	1931	1932	1933	1934
Agriculture	30	30	30	30	30	30
Mining and manufacturing industries:						
Mines	623	629	629	626	524	517
Metal, machines, etc.	500	508	499	465	430	423
Textile	464	460	432	403	369	336
Clothing	156	155	149	148	145	145
Wood working and furniture	57	58	59	54	49	43
Paper, printing, etc.	136	141	151	152	152	153
Building, etc.	286	288	277	272	255	234
Other industries	44	44	48	47	44	43
Total for industry	2,263	2,283	2,244	2,167	1,968	1,895
Transport, commerce, Government, etc.:						
Railways	412	412	428	418	392	377
Other transport	722	765	756	738	715	724
Commerce and finance	179	187	196	201	208	214
Government	30	32	35	31	30	30
Entertainments, sport, etc.	36	36	32	29	26	23
Total services, etc.	1,379	1,432	1,447	1,417	1,371	1,369
Grand total	3,673	3,744	3,719	3,613	3,368	3,295

Source: The Ministry of Labour Gazette, September 1930, p. 322; September 1932, p. 322 September 1933, p. 320; September 1934, p. 309.

From 1929 to 1934 the unions affiliated to the Trades Union Congress lost 378,000 members. The losses of the industrial unions during that period amounted to 368,000, or 16.3 per cent. The losses of other organisations were negligible.

In France, the membership of the workers' trade unions does not seem to have been affected by the depression. Indeed, during recent years these organisations show an appreciable influx of new members. It must not be forgotten, however, that French trade union statistics are based on more or less rough estimates rather than on regular returns. Subject to that reservation, it may be noted that the increase in the membership of the General Confederation of Labour was due mainly to an improvement in the trade unions of salaried employees and public officials, that is to say, in unions whose members were more or less exempt from unemployment.

The same explanation cannot be applied to Belgium or to the Netherlands, in which there was also an increase in trade union membership during the depression. In these countries the development of the unions would appear to have been influenced by the part they played in the application of unemployment insurance. As intermediaries between the public authorities and the unemployed, these unions were in no danger of being crushed under the weight of unemployment as was the case in Germany.

In Austria, the independent unions lost about 30 per cent. of their members between 1929 and 1932. The reason was the same as in Germany : unemployment was exceedingly widespread in both countries. During 1933, the average proportion of insured persons in receipt of unemployment benefit in Austria was 31.1 per cent. The number of registered applicants for employment was about a quarter higher than the number of persons in receipt of benefit, and there must have been many more unemployed workers who were not shown on any register. The important point is that the average figures given above applied to all insured occupations, whereas the depression was particularly acute among occupations employing wage earners. According to the census of industrial undertakings made in Austria in June 1930, the percentage of unemployed workers at that date was twice as high as the percentage of unemployed salaried employees.[1] It is scarcely likely that any change took place in

[1] KAMMER FÜR ARBEITER UND ANGESTELLTE (VIENNA) : *Wirtschafts-statistisches Jahrbuch 1931-32*, Vienna, 1933, p. 139.

this situation to render it more favourable for the workers during the latter part of the depression. The percentage of unemployment among workers would therefore be considerably higher than the average figure for all employed persons. The reader will thus have some idea of the situation of the workers' trade unions of Austria during the depression.

In the Scandinavian countries, on the other hand, the depression did not put a stop to the increase in trade union membership, although it may have caused the movement to become slower.

There was no excessive loss of membership as the result of the depression among the trade unions of Poland or Hungary, and in Spain there was a remarkable increase in membership even in the middle of the depression as a result of the political events of 1931.

Turning to oversea countries, we may consider first of all the position in the United States. The most important federation of trade unions in that country, the American Federation of Labor, lost 808,000 members, or about 30 per cent., from 1929 to 1933. The violence of the depression in the United States is a sufficient explanation of this phenomenon. It would appear, however, that the occupations that constitute the social basis of the Federation did not suffer so severely from unemployment as the industrial proletariat as a whole. This can be easily seen by comparing the volume of employment among members of the Federation and in American industry in general. The percentage of the members of the American Federation of Labor out of employment was as follows :

1928	1929	1930	1931	1932	1933	1934	1935
9.2	8.2	14.5	19.1	23.8	24.3	20.9	18.5

Source : American Federationist, 1936, Washington.

The percentage of members of the Federation in employment therefore fluctuated as follows (basis : 1929 = 100) :

1928	1929	1930	1931	1932	1933	1934	1935
99.0	100	93.1	88.1	83.0	82.2	87.1	89.8

This series may be compared with the following index number of employment in manufacturing industries compiled by the Bureau of Labor Statistics (basis : 1929 = 100) :

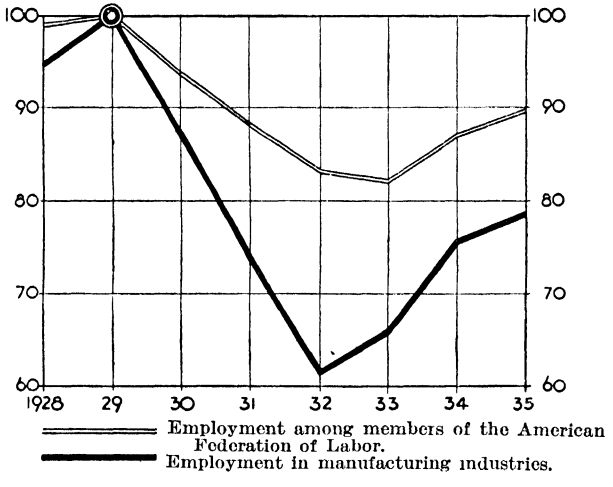
1928	1929	1930	1931	1932	1933	1934	1935
94.4	100	87.3	73.9	61.2	65.8	75.2	78.4

(See diagram XXXVI.)

The membership of the American Federation of Labor reached its lowest point at the end of 1932 and the beginning of 1933. The number of persons paying contributions at that date was less than 2.1 millions. In the middle of August 1933 the figure was estimated at over 2.5 millions, and it rose to 3,153,913 in August 1935, which was the highest level reached since 1932.[1]

DIAGRAM XXXVI.—INDEX NUMBERS OF EMPLOYMENT IN THE UNITED STATES

(1929 = 100)



In Canada, India, Australia and New Zealand there was a more or less marked decrease in trade union membership. In Japan, on the other hand, the trade union movement developed rapidly as modern industry spread throughout the country.

It is impossible to detect any common trend in the evolution of the workers' organisations during the depression in different countries. Failing that, all that can be done is to classify them in certain fairly typical groups :

(a) The trade unions suffered a very extensive loss of membership in the countries which were most severely affected by the depression (Austria, Germany and the United States).

(b) Trade union membership increased in countries in which unemployment did not exceed a certain limit (Japan, Switzerland,

---

[1] *Report of the proceedings of the fifty-fifth Annual Convention of the American Federation of Labor*, 1935. Washington, p. 29.

Czechoslovakia and Hungary) and in countries in which the trade unions played a direct part in the administration of unemployment insurance (Belgium, Netherlands, Sweden, Norway and Denmark).

(c) In some cases (e.g. Great Britain, Germany and France) the membership of workers' unions and of salaried employees' unions developed along contrary lines; there were also differences between the course of development of unions representing mining and manufacturing industries on the one hand and unions representing commerce and transport on the other. This divergence corresponds to the difference in the volume of unemployment in different sections of the economic system.

* * *

The same characteristics are to be met with in the development of labour disputes (cf. Appendix 18).

The statistics of labour disputes, based on the number of working days lost, show a sudden extensive drop during the depression in Germany, Austria, the United States, India and Australia. These were the countries in which the largest numbers of unemployed persons among organised workers were recorded (cf. Appendix 17).

On the other hand, the time lost on labour disputes was greater from 1930 to 1933 than from 1927 to 1929 in the Netherlands, Sweden, Denmark, Switzerland and Japan—that is, in countries in which the trade unions survived the depression.

There are, however, exceptions to this rough classification. In Great Britain and Canada, where there was a decrease in trade union membership, labour disputes were more important during the depression than they had been on the average during the three years preceding the depression. On the other hand, in Belgium, Czechoslovakia and Norway there was a decrease in the importance of labour disputes.

A careful study of the statistics of labour disputes and the statistics of trade union membership in the various countries suggests the conclusion that there was a certain correlation between the two. As one goes into the matter more closely, the question becomes more complex, and it could not be completely unravelled without a detailed study of the trade union movement throughout the depression. Did defensive strikes help the trade unions in some countries to keep up their membership?

Did the fact of refraining from such tactics lead to loss of trade union membership in other countries? The author would draw attention to these questions, but he does not venture to suggest an answer.

G.—Summary

This study of the position of the employed population during the depression has constantly brought us back to the problem of unemployment. The social aspect of the question from the point of view of this class may be summed up in the decrease in the volume of employment. The shrinkage in production deprived the wage earners of the basis of their social existence, and nothing—neither the spreadover of employment, nor the fall in the cost of living as compared with hourly wage rates, nor the various allowances and compensation that were paid—could make good the loss.

As the depression became worse, the spreadover of employment merely amounted to a spreadover of poverty. The minor supplementary earnings of the unemployed and the members of their families were an additional factor of disorganisation on the labour market.

The tragic aspect of the situation of the workers during the depression was that they were struggling with an unseen foe. They felt the presence of the depression; they were in its grip; but they could not see whence it came and they did not know how to fight it.

The strength of the workers' organisations, sadly reduced by unemployment, was all used during the depression in struggling for the maintenance of nominal wages. Except for the strikes in the United States in connection with the New Deal, practically all the labour disputes since 1929 have been concerned with wages. The workers strongly resisted any reduction in their remuneration, and there is no doubt that that resistance on several occasions had an influence on public opinion and on the Government, and was one of the factors that determined Government policy in the field of wages.

One may ask whether trade union activities influenced the trend of the real earnings of the working class. Were the unions able to change the ratio of the rate of decrease of wage rates to that of the fall in the cost of living, or to hinder the shrinkage in the volume of work available?

The question is of fundamental importance. Careful impartial studies clearly show that there is only a very faint correlation between the development of the trade unions and their activities on the one hand, and the relationship between hourly wages and the cost of living on the other, during the depression.[1]

It is possible that the economic significance of labour disputes was in reality quite different from their apparent significance as understood by the parties concerned. When the workers opposed a fall in wages they were not so much defending the level of their real earnings as maintaining the general level of prices within the country, for it was difficult to lower that level so long as wages remained fixed. In that case, labour disputes during the depression were really concerned with price deflation, which was supported by one party and opposed by the other. And neither of the parties realised it!

---

[1] In the two countries in which the trade unions were crushed by excessive unemployment and reduced to inactivity (Germany and Austria) the real rates of hourly wages nevertheless increased by from 3 to 4 per cent. on the average. In the United States, where the unions had had heavy losses and were not able to resist the employers effectively, the rates of real wages varied in much the same way as in Norway and Sweden, in both of which countries the trade unions increased their membership during the depression and were very active in the defence of wages. In Great Britain, where the trade unions lost members during the depression, the rates of real wages rose to about the same extent as in Czechoslovakia (by 10 per cent. and 9 per cent. respectively). In the Netherlands and in Belgium there was exactly the same increase in real wages as in Poland (11 per cent.), although the development of the trade unions and of labour disputes in these three countries was entirely different. The same applies in the case of Denmark, Switzerland and Canada (cf. Appendices 17 and 18).

CHAPTER II

FARMERS

A.—The Agricultural Depression in the midst of the Industrial Depression

Careful studies of the markets for wheat, cotton, cattle, wine, etc., have thrown considerable light on the causes of the difficult position of farmers in various countries.

The main causes were the excessive area devoted to cereals in the New World during the war; the protectionist tendencies in various countries in the post-war period; technical progress in agriculture, more especially in the form of new machinery; the excellent results obtained by seed selection; the temporary absence of Russia from the world market and its reappearance later in its former position as one of the chief exporting countries; changes in the habits of certain countries as regards nutrition; the substitution of the petrol motor for the horse, which was a consumer of oats; the disorganisation of the large Asiatic markets; the inability of agriculture to adapt itself to new conditions; the growing discrepancy between the prices paid to agricultural producers and the prices paid by the consumers; the obstacles to commercial exchanges, migration and the movement of capital, which continued to develop during the brief period of economic recovery.

There were other factors that contributed to make the situation of agriculture difficult after the war, and all these factors helped at the same time to aggravate the economic depression in general.

There is, however, a serious objection to explaining the agricultural depression by the multifarious reasons enumerated above. These were after all durable factors which exercised an influence before 1929, when the economic situation was improving, and which are still exercising an influence at the present time when

the world is awakening from the stupor into which the depression plunged it. A study of these factors is essential if one is to understand the difficulties which gave rise to the recent depression and which are likely to upset the economic equilibrium of the world in the future. But they do not provide an explanation of the sudden decline in agriculture after 1929 and its gradual revival since 1933.

The present writer cannot subscribe entirely to the opinion expressed by the International Institute of Agriculture to the effect that monetary conditions and trade policy are " the common factors forming the principal link between the agricultural depression and the world economic crisis ".[1] The principal link between the two processes was rather the divergence between the volume of production in the two branches of the economic system which inevitably led to a disparity in price movements. The nature of this reaction was studied in the first part of the volume.[2]

Agricultural production (more especially that of foodstuffs) is notably immune from the influence of cyclical fluctuations.[3] It did not follow the rapid increase in industrial production from 1925 to 1929 nor its sudden decline in the succeeding period.

On the whole, agricultural production during the depression remained below the level which ought to have been reached if the trend from 1925 to 1929 had been continued, as would have been justified by the increase in population.[4] After 1929, therefore, there was no absolute over-production of agricultural produce to account for the fall in prices. The acute slump in agriculture from 1930 to 1933, which took the form of an excessively rapid drop in prices, originated solely in and can be fully explained by the decline in industrial production and in the purchasing power of the towns.

The countries that imported agricultural produce were able to some extent to escape the effects of this fall in prices on the world market, for all they had to do was to raise their tariff barriers. It is true that this measure had serious disadvantages both for the countries that applied it and for the world economic system as

---

[1] INTERNATIONAL INSTITUTE OF AGRICULTURE : *The Agricultural Situation in 1930-31*, Rome, 1932, p. 5.

[2] Cf. pp. 36-39.

[3] Cf. pp. 20-22, Diagram V, p. 21 and table 2, p. 55.

[4] LEAGUE OF NATIONS : *The World Economic Situation 1932-33*, Geneva, 1933, p. 75.

a whole, but this possibility could not over-ride the economic and political necessity for protecting national agriculture against the disastrous consequences of a fall in prices abroad. A commodity cannot be protected by tariffs unless the country in question produces that commodity to an appreciable extent but not in sufficient quantities to meet home demand. The spread of agricultural protectionism during the depression was therefore restricted in two directions; such a policy could not succeed in purely industrial countries or in countries with a surplus of agricultural produce. It was widely applied on the other hand in industrial countries with a considerable volume of agriculture, such as Germany, France, Italy, Czechoslovakia, etc. In these countries the prices of wheat and other agricultural produce fluctuated quite independently of price movements on the world market.[1] In the rest of the world, tariff protection was possible only in the case of certain selected commodities.[2]

But the countries with a large volume of agricultural production could not protect every branch of it simultaneously and with equal effectiveness during the whole of the depression. Germany, for instance, was unable to prevent the price of potatoes from falling; France could not defend itself against the fall in the price of oats; in the case of Italy no tariff barriers were high enough to protect its vine-growers; Czechoslovakia could do nothing to prevent a drop in the price of rye. There were therefore considerable discrepancies between the fluctuations in the prices of various agricultural products (cf. table 24).

Generally speaking, tariff protection was more effective in the case of products of vegetable origin than in the case of products of an animal nature. This distinction is in accordance with the generally recognised fact that the shortage of vegetable produce in industrial countries is normally more extensive than the shortage of products of animal origin.

In many countries the production of cereals for sale is largely restricted to big farms, whereas peasant holdings tend to distribute their activities over a variety of crops and several branches of stock-rearing, the latter being the more important. These peasant holdings do not sell their vegetable produce directly but only indirectly through their output of livestock. This can be

[1] Cf. p. 61.

[2] Belgium, for example, protected its butter producers with considerable success.

TABLE 24.—VARIATIONS IN THE PRICES OF WHEAT AND UNPROTECTED AGRICULTURAL COMMODITIES IN VARIOUS COUNTRIES

(Basis : 1929 100)

	1929	1930	1931	1932	1933	1934
Germany :						
Wheat	100	112	109	105	83	84
Potatoes	100	63	66	62	50	80
France :						
Wheat	100	98	111	96	75	73
Oats	100	66	80	92	54	45
Italy :						
Wheat	100	97	77	84	71	64
Wine	100	70	57	42	47	44
Czechoslovakia :						
Wheat	100	92	86	87	87	91
Rye	100	67	94	86	59	83

Source : Calculations based on statistics of prices given in the *Revue de l'Institut international de statistique*, Vol. III, No. 1, pp. 110-113.

seen by considering the distribution of the output of various agricultural undertakings as shown by their accounts (cf. Appendix 19 A). In Germany, Denmark, Czechoslovakia, Sweden, Finland and practically all the countries for which comparable statistics are available, peasant holdings differ from large farms in that they tend to engage to a greater degree in stock-rearing. Consequently the efforts made to protect the prices of wheat and other cereals favoured the interests of the large landowners rather than those of the peasants, even if the latter did not require to purchase barley, rye or maize. On the other hand the peasants (and especially medium-sized holdings) had one considerable advantage during the depression over large undertakings of a purely capitalist nature : they were able to live on the produce of their farms without exchanging it for manufactured articles. By reversing the century-old trend of evolution and withdrawing as far as possible from the market, agricultural smallholders were better able to survive the depression than their more wealthy neighbours. This is equally true of importing countries and of countries that exported agricultural products.

The position of exporting countries whose agriculture consisted

of special crops for the world market and which were therefore unable to return to subsistence agriculture was particularly serious during the depression.

The following are the difficulties of method that have to be overcome in studying the effects of the industrial depression on the situation of the farmers.

1. A fraction of the income of farmers always consists in the produce of their own households and the services of their property (rent); they receive another fraction of their income in cash (representing the excess of receipts over production costs). This latter fraction can be assessed from the accounts kept by the undertakings, but their income in kind is practically never shown and there is no generally accepted method of discovering or measuring it.[1] Statistics tend to ignore or underestimate this part of the farmers' income. If the budget of a peasant family is compared with that of a worker, craftsman or small trader living in the town, it will be found that the peasant family obtains in kind commodities that would absorb almost half the budget of the town-dweller. Moreover, the depression brought about a considerable increase in the importance of subsistence agriculture as compared with commercial agriculture : the latter contracted whereas the former increased not only relatively but also absolutely:

An example will suffice to show this development. In the United States the yield of agricultural holdings was distributed as follows (in millions of dollars) :

	1929	1930	1931	1932
Gross cash yield	10,286	7,988	5,749	4,201
Deduct : Cash expenditure	5,629	5,015	3,815	2,899
Cash available	4,657	2,973	1,934	1,302
Yield in kind	1,632	1,426	1,162	942

Source : INTERNATIONAL INSTITUTE OF AGRICULTURE : *The Agricultural Situation in 1933-1933*, Rome, 1934, p. 451.

In 1929, therefore, the yield in kind represented 26 per cent. of the total net income in cash and in kind in American agriculture; the corresponding percentages were 32 in 1930, 37 in 1931 and 42 in 1932.

In many cases the working of the farm is justified only on

[1] It is impossible here to go into the question whether the farmer's income in kind is part of his net income or part of his working expenses.

account of the yield in kind, for the commercial yield may be nil or even a negative quantity.

2. The index numbers of prices published by the statistical services of various countries and by the international organisations concerned generally refer to wholesale prices on the chief markets in any given country (in the capital, the principal ports, and some other large towns).[1] The prices actually received by the producers are lower. There may, however, be a difference between the prices obtained by large landowners, who can select the favourable moment for selling their produce, and the prices obtained by small farmers. The more the market is disorganised the greater this discrepancy will be.

3. As official statistics are not sufficient to provide a criterion for the position of farmers one must have recourse to statistics of their accounts and to various estimates made by organisations of peasants, unions of large landowners, etc. Some of these statistics are excellent, but they suffer from the fact that they are intended by the organisations which publish them to serve a practical purpose : for instance, calculations which show that the average earnings of a peasant represent only a fraction of the earnings of his farm servants give the impression that they are intended to support some particular argument rather than to be the results of an impartial study. One cannot ignore these statistics, but they should be used with great prudence.

B.—Agricultural Income during the Depression

Generally speaking, the share of agriculture in national production and its share in national income fluctuated in the same way in the countries that suffered from the depression :

1. The actual volume of production in agriculture remained practically unchanged, but the ratio of that volume to the total national output of goods and services increased.

2. On the other hand the share of the farmers in the national

[1] This remark applies, for instance, to the price surveys published by the International Statistical Institute at The Hague. On the other hand it does not apply to some of the figures compiled by the International Institute of Agriculture in Rome, which are based on the prices actually obtained by the farmers (*Farm Accountancy : Statistics for 1930-1931*, pp. LXXXII-LXXXIX). For technical reasons the statistics of prices paid to the farmer are very late in being published.

income, and more especially their cash income, declined in practically every country to a more or less noticeable extent.

3. The consumption of purchased commodities by the farmers also decreased. This is true both of direct consumption and of productive consumption (producers' goods and investment goods).

From the point of view of the industrial sector of the economic system the situation may be summed up as follows : *the industrial depression was not followed by any decline in agricultural activity, but it led to a shrinkage in the purchasing power of the farmers.*

This formula—since it is expressed in the most general terms—applies equally to industrial countries importing agricultural produce and to exporting countries. The difference between the situation of the two groups lies in the extent of the divergence between agricultural prices on the one hand and production costs in agriculture and the prices of the commodities consumed by the farmers on the other hand. This divergence was less marked in countries with a protectionist policy for agriculture than in the exporting countries. In other words, agricultural protection, apart from its effects on the world economic system, successfully achieved its immediate aim which was to protect national agriculture against the consequences of the disequilibrium between industrial production and agricultural production. This can be clearly seen by comparing the situation of agriculture, and more especially agricultural income, in various countries during the depression.

Germany is an example of a country with a mixed economic system in which the interests of the farmers were most persistently protected during the depression, even to the detriment of other branches of the country's economic system. The fluctuations in the total income of German farmers during that period were as follows : [1]

	1928	1929	1930	1931	1932	1933
In millions of RM.	5,816	5,487	4,950	4,375	3,825	4,045
In millions of "1928 RM. `[1].	5,816	5,412	5,098	4,884	4,799	5,179
As a percentage of the national income	7.7	7.2	7.0	7.6	8.4	8.7

[1] Converted on the basis of the cost-of-living index.

If these statistics are accurate the average income of German agriculture from 1930 to 1933 was 4,990 million "1928 RM." a year, the deficit as compared with 1929 being 432 million

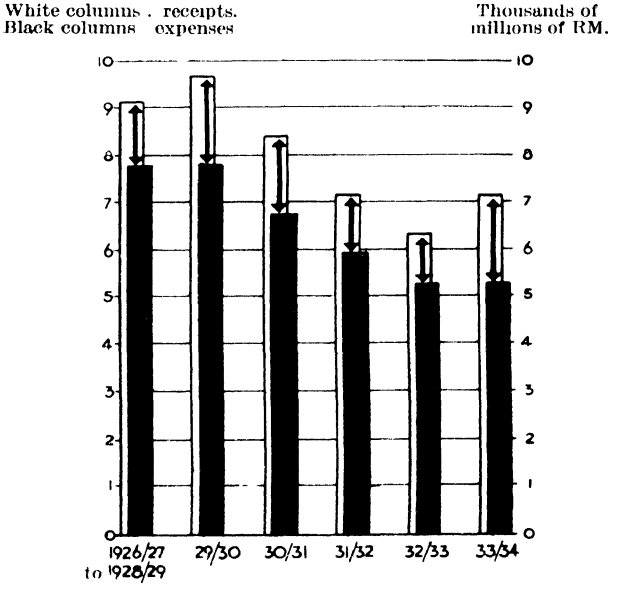
[1] Cf. Appendix 9 B.

"1928 RM." or 8 per cent. whereas there was a decline of 16 per cent. in the remaining national income of Germany over the same period.

In reality the losses of German farmers were even less extensive, for the fraction of their income that was obtained in kind increased during the depression.

There are other statistics of the income of German farmers during the depression which may be considered (cf. Appendix 19 B and diagram XXXVII).

DIAGRAM XXXVII.—RECEIPTS AND WORKING EXPENSES IN GERMAN AGRICULTURE



The cash income of German agriculture decreased from 1929-1930 to 1932-1933, but it recovered very considerably in 1933-1934. The cost of production in 1933-1934 was practically the same as in 1932-1933, so that in the later year the farmers earned more and were therefore able to make good some of the loss on earlier years.

In order to have a more exact view of the fluctuations in the net income of the farmers (excess of receipts over production costs) during the depression, one must take into account the changes in the purchasing power of the money they received. The cost-of-living index used above cannot be applied in this

case except subject to considerable reservations, for it represents the consumption of a working-class family living in the town and not the budget of an agricultural family in the country. Nevertheless, on the basis of the fluctuations in the prices of clothing and of other commodities included in the official cost of living index, it may be concluded that in 1930-1931 the German farmers as consumers did not suffer from the fall in prices, that in 1931-1932 they were able to buy everything about 20 per cent. cheaper than before the depression, that in 1932-1933 the fall in the price of the articles they consumed was 25 per cent., and that this decline had been reduced to 15 per cent. by 1933-1934. The amount that remained to German farmers may therefore be assessed as follows (in millions of RM. at average 1926-1927 prices) :

Average	1926-27-1928-29	1929-30	1930-31	1931-32	1932-33	1933-34
	1,352	1,870	1,632	1,441	1,400	2,167

It would seem therefore that the position of German farmers even when the depression was at its worst was no less favourable than their average situation during the years 1926-1927 and 1928-1929.

It may be objected that the great reduction in certain items of production costs during the depression led to a depreciation in the capital invested in agriculture. But even if that correction is made, the financial results obtained in agriculture in Germany would still be comparatively favourable, and in any case less unsatisfactory than might be expected in view of the statements of certain experts. To quote only one source, the following is the description of the position of German agriculture given in the annual reports of the International Institute of Agriculture :

" Agriculture is one of the branches of German economy that has suffered most from the crisis. . . . As in all countries, the decrease in the cost of production in agriculture in Germany is out of proportion with the fall in the prices of agricultural products. . . . German agriculture is obliged to struggle against difficulties far greater than those encountered by agriculture in other countries."[1]

" The disparity between the prices obtained for agricultural produce and the prices of the articles of which the farmer makes use for his personal needs became even more accentuated during the economic year 1932-1933 and in that year reached the most unfavourable level since the stabilisation of the currency." [2]

[1] *The Agricultural Situation in 1931-32*, Rome 1933, p. 393.
[2] *The Agricultural Situation in 1932-33*, Rome, 1934, p. 442.

In view of what has been said above, this survey of the situation appears to be somewhat one-sided : the influence of the depression on various branches of agricultural production and various groups of undertakings was very uneven. Some of them suffered heavy losses, whereas others earned more during the depression than during the period of economic revival.

Turning to the development of agriculture in France, which practised a protectionist policy in favour of agriculture to the same extent as Germany during the depression,[1] one meets with equally conflicting views.

According to French statistics of private income, the income of farmers fluctuated during the depression as follows : [2]

	1928	1929	1930	1931	1932
In thousands of millions of francs ..	43.1	44.8	35.2	30.7	26.5
In thousands of millions of " 1928 francs " [1]	43.1	41.8	31.5	28.0	26.2
As a percentage of the sum of private incomes	19.0	18.3	14.5	13.5	12.9

[1] Converted on the basis of the cost-of-living index.

According to these figures French farmers must have suffered tremendous losses. On the other hand, the picture given by the experts of the International Institute of Agriculture is quite different.

The Report for 1931-1932 states :

" With the effective aid of the credit, mutual insurance and co-operative institutions . . . . these farmers have so far succeeded in overcoming without too great hardship the numerous difficulties resulting from the fall in the prices of agricultural products. "[3]

For 1932-1933 the report states that, by reason of the circumstances of her rural economy and of the fact that the majority of her farmers are small owners cultivating their land with the help of their families and at a fairly small outlay, France appeared to feel the effects of the agricultural depression to a less extent

---

[1] League of Nations : *Considerations on the Present Evolution of Agricultural Protectionism*, Geneva, 1935, table 2, p. 19; tables 3, 4 and 5, pp. 21-22.

[2] Cf. Appendix 10 B.

[3] *The Agricultural Situation in 1931-32*, Rome, 1933, p. 391.

than most other countries. It is asserted that, thanks to the effective help of the agricultural credit, mutual insurance and co-operative institutions, which have considerably developed, the French farmers have so far been able to surmount with the minimum of loss the difficulties of all kinds arising from the low selling prices of their produce.[1]

It is difficult to reconcile these rather optimistic views with the figures for agricultural income quoted above. We must therefore endeavour to verify the figures. The income of farmers is assessed by taking as a starting point the value of the gross vegetable output of the country (in millions of francs) :

1928	1929	1930	1931	1932
80.2	83.7	70.5	64.4	58.0

Mr. L. Dugé de Bernonville, who carried out the assessment of private incomes in France, has no illusions as to the accuracy of these figures, but he claims that they have at least one merit —that of existing. He goes on to assume that the actual output of all branches of French agriculture must be approximately equal in value to the gross vegetable output.[2]

The next point is to calculate the net value of agricultural production. Dugé de Bernonville deducts 7 per cent. of the gross value of cereals and potatoes as representing the value of seed, and then deducts 25 per cent. of the remainder for overhead costs. The difference will then represent the net production of French agriculture. After deducting the wages of agricultural workers (assessed in a very rough and ready fashion) one arrives at an estimate of the fraction which remains for the farmers. The present writer considers the method to be arbitrary and is inclined to accept the conclusions of the International Institute of Agriculture as being nearer to the truth.

The situation was very different in countries that exported agricultural produce, because they could not have recourse to a policy of tariffs to protect prices. They were moreover adversely affected by the protectionist measures of other countries. An example of this can be seen in the effects of the agricultural depression in the United States. The fraction of the national

---

[1] *The Agricultural Situation in 1932-33*, Rome, 1934, pp. 430-431.

[2] DUGÉ DE BERNONVILLE : " Les revenus privés ", in *Revue d'économie politique*, May-June 1933, pp. 652-653.

income of the United States that went to the farmers varied as follows :

	1929	1930	1931	1932	1933
Income paid out : [1]					
In millions of dollars	6,157	5,495	4,271	3,192	2,993
As a percentage of the national income	7.8	7.5	7.0	6.7	6.7
Income produced : [2]					
In millions of dollars	7,159	5,555	3,601	2,335	3,300
As a percentage of the national income	8.8	8.2	6.7	6.1	7.9

[1] *Survey of Current Business*, August 1935, p. 18.
[2] *Survey of Current Business*, November 1935, p. 17.

At the same time the share of the farmers in national production increased, as can be seen by comparing the index numbers of the volume of agricultural production with those for industrial production (basis : 1929 = 100.)

	1929	1930	1931	1932	1933	1934
Agricultural production	100	100	106	99	96	90
Industrial production	100	81	68	54	64	66

Source : Statistical Abstract for the United States, 1935, p 586

As compared with the basic year 1929, the shares of agriculture in national production and in national income changed in opposite directions (cf. diagram XXXVIII, p. 206).[1]

It may be said that the income of the farmers decreased proportionately with the fall in industrial production. Economists in the United States are justified in pointing out that the incomes of farmers varied directly with the incomes of workers in the towns, thus reflecting the shortage of employment and the reduction in wage rates (cf. diagram XXXIX, p. 206).[2]

It is true that the income in kind of farmers was not affected by the fall in prices on the market, and the farmers naturally increased that fraction of their production which they retained for home consumption. The development of subsistence agriculture, however, could not counterbalance the losses suffered by farmers as a result of the decrease in the purchasing power of the towns.

There is one notable feature in the trend of prices of agricultural commodities in the United States during the depression : they

[1] The share of agriculture in national production for this diagram was calculated on the assumption that in 1929 agricultural production represented a quarter and industrial production three-quarters of the total national production.
[2] U. S. Department of Agriculture : *Year-Book of Agriculture*, 1934, pp. 107-108.

DIAGRAM XXXVIII.—FLUCTUATIONS IN THE SHARE OF NATIONAL PRODUCTION AND OF INCOME PAID OUT OBTAINED BY AGRICULTURE IN THE UNITED STATES (1929 = 100)

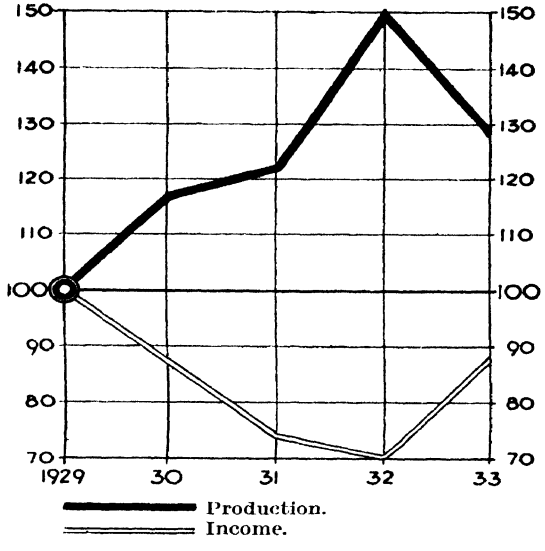
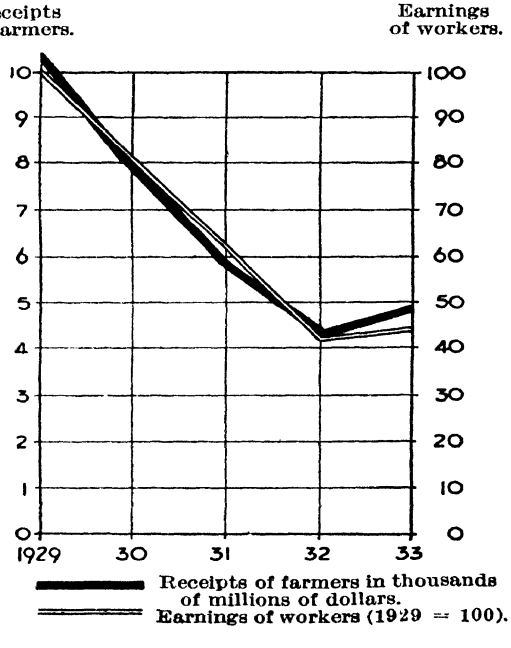
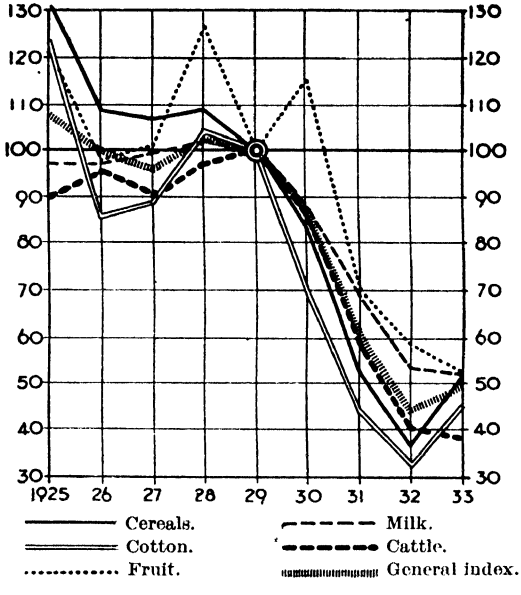


DIAGRAM XXXIX.—RECEIPTS OF FARMERS AND EARNINGS OF INDUSTRIAL WORKERS IN THE UNITED STATES



did not show the same excessive divergences as in importing countries. From 1929 to 1933 they did not diverge from each other to a greater extent than they had done from 1925 to 1929 (cf. Appendix 19 C and diagram XL).

DIAGRAM XL.—MOVEMENT OF AGRICULTURAL PRICES IN THE UNITED STATES
(1929 = 100)



Generally speaking it may be said that in essentially agricultural countries the farmers suffered more severely from the depression than any other section of the population.

In Japan the total income of farmers in 1925 was 3,362 million yen (28.2 per cent. of the national income); in 1931 their income was only 1,200 million yen (13.5 per cent.). It is true that the purchasing power of the yen was not the same at the two dates, but if the income for both years is converted into a currency with fixed purchasing power the following figures will result (in millions of " 1928 yen ") [1]:

	1925	1931	Percentage variations
Total national income	10,086	12,047	+ 19.5
Including :			
Income of farmers	2,849	1,622	— 43
Income of other classes	7,237	10,425	+ 44

[1] Cf. p. 124.

The income of farmers was thus reduced by 43 per cent. while the income of other sections of the population increased by 44 per cent. This is not due solely to the drastic change in price levels on the world market; there were other contributory factors. It would appear, however, that the world economic depression speeded up the development of the Japanese economic system and caused a more far-reaching change in the distribution of income than would have been produced by a social revolution.

A still more striking example is Bulgaria, in which national income, obviously under the influence of the world depression, fluctuated as follows (in millions of " 1929 levas ") [1] :

	1929	1932	Percentage variations
Agriculture	19,981	13,634	— 32
Trade in agricultural products.	5,860	3,170	46
Total agricultural sector	25,841	16,804	— 35
Industrial sector and various services	21,259	21,395	+ 0.6
National income ...	47,100	38,200	— 19

Bulgaria is an instance of a country that was subjected to a tremendous slump in agriculture simply because in some other countries far beyond its frontiers the disturbance in the balance between production and consumption had led to a sudden shrinkage in industrial activity and a collapse in the purchasing power of the population.

The fate of all the countries that exported agricultural commodities was the same : in Poland, Hungary, Rumania, Yugoslavia, Argentina and Canada the agricultural depression spread as prices on the world market fell. The example of Japan and Bulgaria shows that the decline in the income of the farmers sometimes counterbalanced the decline in the total national income available for consumption, so that the fraction of that income received by the non-agricultural sections remained unchanged or even increased. This is one of the paradoxes of the depression : the depression in industrial countries causes distress in the villages of agricultural countries, but at first it brings unexpected gain to the industry of these countries; at a later date, if the factories in countries suffering from the agricultural depres-

[1] Cf. pp. 127-128.

sion are unable to find new markets for their products, the distress of the rural areas will spread to the towns and they also will suffer from the depression.

C.—Yield and Consumption of Agricultural Undertakings

The international statistics of agricultural accounts show that as far back as 1930-1931 the gross yield per hectare of agricultural holdings was practically everywhere lower than the average from 1927 to 1930 (cf. Appendix 19 D).

The decline was most marked in the agricultural exporting countries : 48.6 per cent. in Rumania and 32.3 per cent. in Poland. The position was similar in the United States and Canada, which are not shown in table D of Appendix 19.

The losses were also severe in industrial countries with an intensive system of agriculture which provided a surplus for export : 21.8 per cent. in the Netherlands and 23.3 per cent. on large farms and 21.7 per cent. on peasant holdings in Denmark. In Great Britain and Austria, where the farmers could not count on tariff protection, the decrease in the gross yield of agricultural holdings was equally impressive (20.8 and 20 per cent. respectively).

The loss was less serious in countries which took steps at the very beginning of the depression to protect their home market : 13.1 per cent. on large holdings and 10.8 per cent. on peasant holdings in Germany; 10 per cent. on large holdings in Sweden (in which the yield of peasant holdings increased by 1.3 per cent.); and 0.9 per cent. in Switzerland. Conditions were similar in the Baltic countries which exported animal products and imported cereals : as a result of the abundant harvest in 1930 they were not affected by the depression that year to the same extent as farmers in other agricultural countries, such as those in the Danube Basin.

But it is not the gross yield that is important in commercial agriculture but the net yield, which is the surplus after deducting the working costs. In table D of Appendix 19 working costs contain the following items : the remuneration of labour (for members of the family as well as wage-paid workers), current expenses in cash or in kind (fertilisers, seeds, fodder, repairs to machinery and buildings, etc.), taxes, insurance and miscellaneous current expenses. When working expenses have been deducted the net

yield represents the actual return on the active capital of the holding, which must not be confused with the farmer's net income. A large fraction of the farmers' income consists in the remuneration for his work, which is shown in his accounts as part of working expenses. Moreover, one must deduct from the actual return on the working capital the interest on any debts on the undertaking. It is only the remainder that represents the profits of the farmer as owner of the farm.

Subject to this reservation the figures in the table may now be examined. It will be noted in the first place that working costs decreased in almost every case to a less marked extent than the gross yield of the farm. There is a more or less wide divergence in the case of the exporting countries (Netherlands and Denmark, Rumania and Poland) and the free-trade importing countries (Great Britain) as well as in countries with agricultural protection (Germany and Sweden).

The figures in the last two columns of table D in Appendix 19 are the most impressive : they show that right at the beginning of the depression the yield of an estate was a negative quantity in several countries (Austria, Denmark, Norway, Poland and Estonia). But it is possible that the yield of an estate may be incorrectly given, since the capital and the remuneration of the farmer for his work may have been overestimated. One must not therefore take the figures in the last two columns as being exactly accurate. It will suffice to note that as far back as 1930-1931 the yield of agricultural undertakings was seriously affected by the fall in prices.

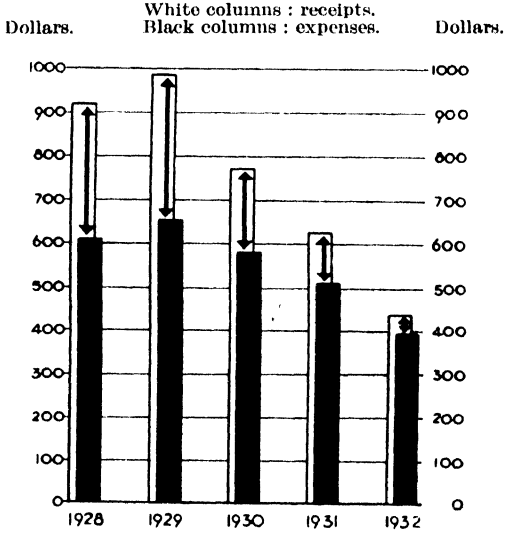
In order to study more closely the later effects of the depression we may return to the movement of income and expenditure in German agriculture (table B of Appendix 19). The decline in the receipts of German farmers was restricted by protectionist tariffs and it was possible to reduce the cost of production to practically the same extent as receipts, so that the farmers still had a considerable surplus. The situation in the United States was exactly the contrary.

When considering the United States statistics in table E of Appendix 19 one must bear in mind the fact that the depression led to a great decrease in the number of farmers who made returns of their accounts to the central authorities. The large undertakings were the first to abandon this practice, and the average area of the farms covered by the statistics fell from

270 hectares in 1929 to 233 in 1932 and 234 in 1933. It would therefore seem correct to calculate the average income and expenditure of farmers not by holdings (as is done in American statistics) but by unit of area (as is done by the International Institute of Agriculture). The following figures will then be obtained (in dollars per hundred acres) :

	1928	1929	1930	1931	1932	1933
Receipts	918	989	777	622	435	522
Costs of production	605	652	581	508	399	414
Farmer's net income ...	313	337	196	114	36	108

DIAGRAM XLI.—RECEIPTS AND WORKING EXPENSES OF AGRICULTURE IN THE UNITED STATES PER 100 ACRES



There were two items on the expenditure side that remained practically unchanged during the depression : taxes and interest, which represented 21.3 per cent. of working costs in 1929 and 34.6 per cent. in 1932.

Apart from these two items the remaining expenditure of American farmers may be grouped under three heads :

(a) Wages, which contracted more or less proportionately with receipts (that is to say, with agricultural prices);

(b) Purchases of *cattle, fodder and seeds*, which represent

transactions within the agricultural section of the economic system. As the amount of this expenditure decreased to the same extent as the prices of the articles in question, there would appear to have been little change in the actual volume of exchanges between agricultural holdings;

(c) Fertilisers, machinery and tools. The expenditure on machinery and tools fell to a far greater extent than the fall in their prices.

	1928	1929	1930	1931	1932
Expenditure on machinery and tools per 100 acres (in dollars)	53	59	42	25	15
Index number of prices of agricultural machines (basis : 1929 = 100).....	101	100	99	98	93
Consumption of machines and tools (basis : 1929 = 100)	89	100	72	43	32

Sources : Calculations based on table E of Appendix 19 and the official index of the prices of agricultural machinery; U.S. DEPARTMENT OF AGRICULTURE : *Year-book of Agriculture*, 1934, p. 706.

Farmers were therefore obliged to reduce their consumption of machinery by two-thirds, thus causing unemployment for more than 50,000 industrial workers and an equal number of workers and employees in commerce and transport.[1]

United States statistics give the following estimate of the quantity of fertilisers used in the country (in thousands of short tons).

1929	8,079	1932.....	4,379
1930	8,164	1933.....	4,869
1931	6,306	1934	5 533

Source : *Statistical Abstract of the United States*, 1935, p. 584.

From the point of view of industry, however, the decline in the personal consumption of the farmers was even more important

[1] In 1929 there were in the United States 293 industrial undertakings producing agricultural machinery. They employed 41,663 workers (not counting salaried employees). In 1931 there were only 219 factories for agricultural machinery, with 17,529 workers (*Statistical Abstract of the United States*, 1934, p. 719). In 1932 there must have been a further decline in production. The materials used for the manufacture of agricultural machinery represented twice as much as the wages of the workers engaged in their production; they therefore involved the employment of at least as much staff as that of the factories which manufactured the machines. It is on this basis that the number of industrial workers reduced to unemployment was calculated. One must add to that figure the salaried employees in the factories (20 per cent. of the number of workers) and the staffs of transport and commercial undertakings. The total of 100,000 is a minimum figure.

than the decrease in their demand for fertilisers and machinery. As was shown above, the net income of the farmers fell from 337 dollars per 100 acres in 1929 to 36 dollars in 1932. If these figures are multiplied by 10 millions—which represents approximately the total area of agricultural holdings in the United States—the total fall in income would be from 3,370 million dollars in 1929 to 360 millions in 1932.

In other words, the agricultural depression deprived industry in the United States of an internal market which was more important for it than the whole of its foreign trade : in round figures 2 million workers and salaried employees in urban centres lost their employment because the farmers had no more money to spend.

In 1928 and 1929 the United States farmers probably received in cash and in kind almost a fair return for their labour and that of their families. In addition, the value of their property and their livestock increased. During the depression, on the other hand, they were unable to renew their plant or repair their buildings, and this meant a depreciation in the value of their farms. In 1931 and 1932, therefore, the losses of the farmers would seem to have been even greater than their income in kind (cf. Appendix 19 E).

Some of the characteristics of the development of American agriculture from 1929 to 1932 are typical of that country only and have no parallel elsewhere. Practically everywhere, however, three phenomena were observed during the depression :

(1) a decline in cash income in agriculture;
(2) a development of subsistence agriculture;
(3) a decrease in the purchasing power and capacity of absorption of agriculture and its decline as a potential market for industry.

It would be very interesting to define exactly the extent of this last phenomenon, which is part of the cardinal problem of the interdependence between the agricultural depression and the industrial depression. In the absence of the necessary statistics all that can be done is to use indirect indications, a detailed study of which would be out of place in this volume. It must suffice to refer to one point.

The following index numbers can be compiled for the total

consumption of six types of commercial fertilisers in 1933 (basis : 1929 = 100).

I		II		III	
Hungary	14.6	Belgium	50.9	France	73.9
Poland	33.8	Czechoslovakia	52.9	Italy	75.6
		United States	60.7	Switzerland	80.8
		Austria	61.2	Great Britain	81.2
		Denmark	62.9	Norway	83.0
		Netherlands	67.5	Sweden	83.4
		Canada	68.5	Germany	84.2
		Finland	69.4	Spain	84.3

(Cf. Appendix 20 A.)

Apart from certain irregularities, these index numbers would seem to reflect the differences in the degree to which the purchasing power of agriculture contracted in different countries. The purely agricultural countries (Hungary and Poland) were most seriously affected. The second group contains the countries that were unable to protect their agriculture effectively by means of tariffs (Belgium and Austria), or which had a surplus of agricultural produce (United States, Canada, Netherlands and Denmark). In the third group come the industrial countries with highly developed agriculture which had only a slight surplus of agricultural produce and were able to take full advantage of the possibilities of tariffs to protect their farmers (France, Italy, Germany and Switzerland). Finally, among the countries which reduced their consumption of chemical fertilisers very slightly are those that were already on the way to an economic revival in 1933 (Great Britain, Sweden and Norway).

D.—The Labour Problem in Agriculture

As was pointed out, the economic depression does not seem to have had any appreciable influence on the volume of agricultural production. Moreover, technical methods in agriculture could not make much progress when the farmers were scarcely able to renew their plant and were reducing the amount of fertilisers used. There is therefore no reason to suppose that the quantity of human labour employed in agriculture changed to any marked extent during the period from 1929 to 1933 or 1934. There were, however, extensive variations in the composition of the labour employed on agricultural undertakings.

As the depression had put a stop to the normal trend of popu-

lation from the country to the towns there was a constant increase in the supply of agricultural labour. The result was a fall in agricultural wages, which were reduced in many countries to a much greater extent than wages in industry.[1] In spite of the reduction in wages, the cash expenditure on labour was still a heavy item in agricultural accounts. It was therefore quite natural for the farmers during the depression to seek means of reducing their wage-paid staff.

The return to subsistence agriculture also encouraged the farmers to substitute the labour of members of the family for wage-paid labour as far as possible. The farmer's son who was on the point of leaving for the town remained at home. In another family it might be the farmer's daughter who lost her job in the factory and came home to help the family by working in the fields or looking after the poultry. In this way a saving was effected on wages. This tendency can be observed in practically every country for which statistics of the accounts of agricultural undertakings exist (cf. Appendix 20 B).

The statistics given in the table refer to the beginning of the depression, and similar data for the latter period are available only for a few of the countries mentioned. It seems obvious, however, that the trend which existed in 1930-31 was bound to become more and more marked as the depression in agriculture became more acute.

In the case of the United States very illuminating statistics on this subject are available. The number of agricultural holdings in that country increased by half a million from 1929 to 1935. It is clear that it could not have been commercial profit that attracted hundreds of thousands of new farmers to agriculture; the great majority of them were thinking only of the possibility of subsisting on the produce of their family patch of land. This can be clearly seen if one studies the numerical development of the population of farms as a whole, including members of the family assisting the head of the household and members of the family maintained by him (cf. table 25, p. 216).

From 1927 to 1929 the country sent on the average 450,000 persons annually to the towns; this was more than the natural increase in the agricultural population. As soon as the depression

---

[1] Cf. *International Labour Review*, Vol. XXX, No. 5, November 1934, pp. 692 et seq., and No. 6, December 1934, pp. 844 et seq.

TABLE 25.—POPULATION OF FARMS IN THE UNITED STATES

(In thousands)

Year	Agricultural population on 1 January	Natural increase in the agricultural population	Emigration to the towns	Immigration from the towns	Net emigration (—) or immigration (+)	Increase(+) or decrease (—) in the agricultural population
1926	30,784	404	2,334	1,427	— 907	— 503
1927	30,281	451	2,162	1,705	— 457	— 6
1928	30,275	404	2,120	1,698	— 422	— 18
1929	30,257	389	2,081	1,604	— 477	— 88
1930	30,169	399	1,723	1,740	+ 17	+ 416
1931	30,585	442	1,469	1,683	+ 214	+ 656
1932	31,241	468	1,011	1,544	+ 533	+ 1,001
1933	32,242	494	1,178	951	— 227	+ 267
1934	32,509	481	994	783	— 211	+ 270
1935	32,779	—	—	—	—	—

Source: U.S DEPARTMENT OF AGRICULTURE: *Yearbook of Agriculture*, 1935, Washington, p. 675.

began, the direction of this current changed, and the country became the Promised Land for those who were unable to find work or subsistence in the towns. Thanks to its somewhat primitive economic structure the country became more attractive than the towns. Notwithstanding the distress in agriculture, the number of persons for whom it provided a livelihood or a means of subsistence increased steadily, and hundreds of thousands of men and women hastened to leave the towns, in which the depression had wrought such havoc.

When they received the unemployed who had fled from the towns the farmers made a distinction between members of their family and other persons. Relatives were welcomed but wage-paid workers were dismissed.

The fluctuations in the number of persons employed on the agricultural holdings covered by the current statistics of the United States Department of Agriculture are shown in table 26.

The decline in the total number of persons employed per 100 farms may be attributed to the decrease in the average area of the holdings covered by the statistics.[1] The important point, however, is the change in the percentage of wage-paid workers in the total number of persons employed on farms,

[1] Cf. Appendix 19 E. It would appear that the average numbers shown in the reports of correspondents to the Department of Agriculture do not apply to all farms in the United States.

TABLE 26.—PERSONS EMPLOYED ON FARMS IN THE UNITED STATES

Average Number of Persons per Hundred Farms

1 January	Wage earners	Members of the family	Total
1924	92	231	323
1925	75	219	293
1926	101	227	328
1927	84	215	299
1928	92	229	321
1929	92	217	308
1930	95	222	316
1931	85	211	296
1932	74	217	291
1933	72	211	283
1934	64	209	273
1935	65	215	280
1936	62	199	261

Source : U.S. DEPARTMENT OF AGRICULTURE : *Crops and Markets*, 1925-1936

which was 29.9 on 1 January 1929, 30.1 a year later, 25.4 and 25.5 on 1 January 1932 and 1933 and 23.2 per cent. in 1935.

It is clear that the reduction in the employment of wage-paid labour in agriculture involved unemployment for a large number of agricultural workers who had no relatives in the country.[1]

[1] There are no international statistics of agricultural unemployment. This is due on the one hand to the structure of the institutions that record unemployment and, on the other hand, to the difficulties of defining the limits of unemployment in agriculture, where independent work merges gradually into wage-paid employment, and regular employment into unemployment. Some countries, however, pay special attention to agricultural unemployment in their statistics. Even if these statistics are not complete, the increase in the number of registered unemployed persons in agriculture is impressive. The situation in 1929 may be compared with that in 1933.

	1929	1933	1933 as percentage of 1929
Austria (applicants for work)	3,125	7,504	240
Denmark (percentage of unemployed in trade union funds)	16.2 per cent.	39.6 per cent	244
Italy (unemployed registered with social insurance funds)	89,466	200,554	224
Netherlands (percentage unemployed in voluntary insurance funds)	11.9 per cent.	36.9 per cent	310
Poland (applicants for work)	1,824	2,972	163
Czechoslovakia (applicants for work)	2,334	39,806	1,705

Source : INTERNATIONAL LABOUR OFFICE : *I.L.O Year-Book 1934-35*, Vol. II, *Labour Statistics*, pp. 10-24.

The census of the population in Germany in June 1933 revealed the existence of 309,000 unemployed persons in agriculture, as against 24,000 at the same date in 1925. Cf. table 17, p. 136.

In the United States this phenomenon is reflected in statistics compiled by the Department of Agriculture from the reports of its crop reporters in every part of the country. These statistics give an estimate of the supply of and demand for agricultural labour as a percentage of what is taken as being the normal level. By dividing the co-efficient of supply by the co-efficient of demand (as is usually done in the statistics of employment agencies) an index number of the relative supply of agricultural labour is obtained (cf. table 27).

TABLE 27.—SUPPLY AND DEMAND ON THE AGRICULTURAL LABOUR MARKET IN THE UNITED STATES

	Supply	Demand	Supply as percentage of the demand
	as percentage of the normal		
1 April 1922	99.7	88.8	112.3
„ 1923	84.2	93.6	90.0
„ 1924	84.1	90.6	92.8
„ 1925	90.0	90.4	99.5
„ 1926	89.2	91.0	98.1
„ 1927	90.8	88.6	102.5
„ 1928	95.2	88.6	107.5
„ 1929	93.6	90.3	103.7
1 January 1930	96.7	84.2	114.7
„ 1931	113.8	66.6	171.0
„ 1932	120.9	60.5	199.8
„ 1933	127.3	53.8	236.6
„ 1934	108.7	62.7	173.4
„ 1935	104.1	66.8	155.8
„ 1936	96.7	76.0	127.2

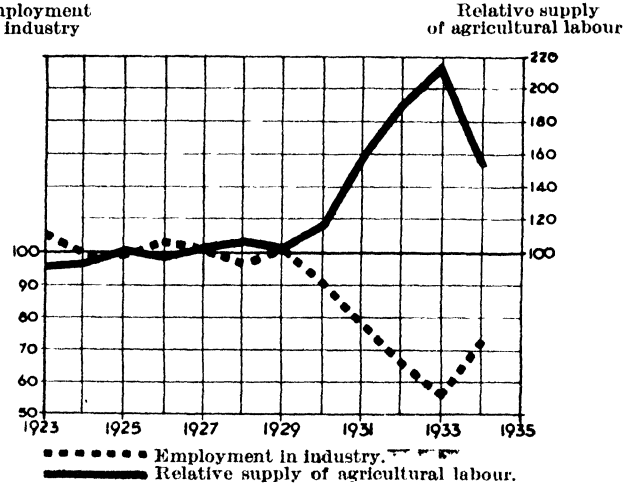
Source : U.S. DEPARTMENT OF AGRICULTURE : *Crops and Markets*, 1926-1936.

The figures in the last column of this table rose steadily as soon as the depression set in, reaching their culminating point early in 1933 and falling again as soon as economic recovery began in the United States, more especially in agriculture. In other words, the trend of the variations in this series of figures is exactly the opposite of that of the index of employment in manufacturing industries in that country. The two have been compared in an ingenious diagram drawn up by the Department of Agriculture (cf. diagram XLII). The Department gives the following explanation of its diagram : when employment in industry is more or less normal, as in 1923-29, there is a movement of rural population towards the towns. When employment falls,

this movement not only weakens but is replaced by an exodus of urban population towards the country. This increases to a considerable extent the supply of agricultural labour. The improvement in conditions in industry in 1934 led to a decrease in the supply of agricultural labour.[1]

Plausible as it appears, this explanation would seem to simplify unduly the relationship between these phenomena. Table 27

DIAGRAM XLII.—QUANTITY OF LABOUR IN AGRICULTURE AND INDUSTRY IN THE UNITED STATES



shows that the demand for agricultural labour is much more sensitive to cyclical fluctuations than the supply. The decrease in demand can be explained by the efforts made by farmers to do without wage-paid labour. The increase in supply may be considered a consequence of the decrease in employment, for it was only natural that farm servants when dismissed should go to swell the number of those applying to farmers for employment.

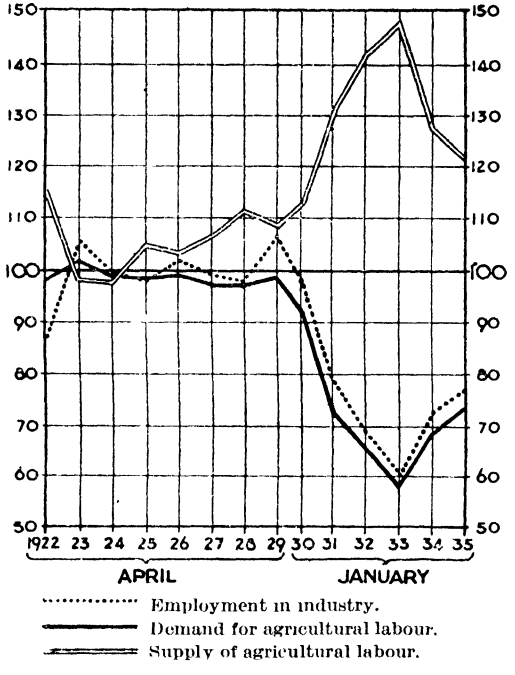
Moreover, the relationship between the index of the demand for agricultural labour (table 27) and the index of employment in industry in the United States is closer than that shown in diagram XLII. This can be clearly demonstrated even without having recourse to a dual scale as is done by the Department of Agriculture (cf. diagram XLIII, p. 220).

---

[1] U. S. Department of Agriculture : *Demand, Credit, Prices. Outlook Charts*, Washington, 1934, p. 18.

DIAGRAM XLIII.—EMPLOYMENT IN INDUSTRY AND AGRICULTURE IN THE UNITED STATES

(Average 1923-1925 = 100)



The two curves at the foot of the diagram practically coincide, and the gap between them is less than the inevitable inaccuracies in the observations and calculations on which the two series are based.

There is only one possible explanation of this phenomenon. The shrinkage of industrial production drastically reduced the purchasing power of the towns. As agriculture continued to put on the market the same quantity of goods as in favourable periods, agricultural prices were bound to fall lower than the prices of manufactured articles. In spite of the fall in agricultural wages, the farmers had no longer sufficient money to pay their workers' wages and therefore they had to dismiss them. *Unemployment in the towns created unemployment in the country.* The extent of the one bore a constant ratio to the extent of the other.

In countries protected by tariff barriers the interdependence of

the two sections of the economic system is less obvious. It can be perceived, however, by studying the close connection that exists between agricultural unemployment in Poland, Bulgaria and Rumania on the one hand, and industrial unemployment in Great Britain and other importing countries on the other : the decline in the purchasing power of the latter created agricultural unemployment beyond their own frontiers, and no measures of tariff protection could prevent an increase in their own army of unemployment in consequence of the agricultural depression in those other countries.

E.—Indebtedness in Agriculture

The reduction in income in agriculture, and more especially in the cash income, involved a serious situation for holdings that were heavily in debt. Even certain undertakings which before the depression were paying interest on a comparatively small debt suffered such a decrease in their receipts that they were not able to pay the interest to the bank when it fell due.

We must consider first the problem of agricultural debts just before the depression. The war and the period of inflation that followed did much to relieve the farmers of their indebtedness because they were able to take advantage of the abnormal situation not only to reduce their debts to the banks but also to make a larger profit on their produce during a period of universal shortage. The period of economic recovery, on the other hand, again increased their indebtedness. Among the facts that contributed towards the increased demand for credit, mention may be made of the process of specialisation and industrialisation in agriculture, which gradually spread on a large scale, the more frequent use of chemical and mechanical processes, the electrification of rural areas, and, in general, the more scientific organisation and equipment of agricultural holdings.[1] In particular, small holdings in countries that carried out agrarian reform contracted debts which subsequently proved to be excessive.

In most countries it is true that the indebtedness of farmers in 1929 or 1930 was less than in 1913, but it exceeded that level

---

[1] Institut international d'agriculture : *Les conditions du crédit et l'endettement de l'agriculture dans les pays de l'Europe centrale et orientale*, Rome, 1933, p. 3.

in some countries in which the currency did not depreciate after the war.

According to an enquiry made by the International Institute of Agriculture, the debts of peasant holdings in 1930-31 represented the following percentage of their working capital: 51.8 in Switzerland, 14.1 in Czechoslovakia, 13.2 in Finland, 15.8 in the Netherlands, 14.8 in Latvia, 14.5 in Estonia, 11.9 in Lithuania, 9.8 in Poland, 7.9 in Austria, 5.8 in Bulgaria, 5.4 in Hungary and 3.9 in Rumania.[1]

Apart from Switzerland, where agriculture was terribly overburdened with debts long before the depression,[2] the average amount of agricultural indebtedness in other countries as compared with the working capital of the holdings would not appear at first sight to have been excessive. But it must be remembered that the conditions of agricultural credit were sometimes very severe and that indebtedness was distributed unevenly over the various holdings.

The fall in prices made the position of farmers in exporting countries particularly difficult. Since they were unable to pay the interest on their debts all they could do was to contract new loans.

In Poland, for example, the indebtedness of farmers increased from 4,000 million zloty on 1 January 1931 to 4,600 millions on 1 November 1932.[3] In Hungary, the total amount of debts on agricultural holdings rose from 1,700 million pengö to 2,300 or 2,400 millions, or by 40 per cent., during 1932.[4] The mortgages on landed property varied as follows in that country (in millions of pengö) [5]:

	1928	1929	1930	1931
Gross charges.....	1,034	1,567	1,845	2,038
Net charges (interest).....	950	1,393	1,570	1,716

Similarly, in Bulgaria, there was a considerable increase in the debts of agricultural holdings, the total amount increasing from 5,745 million levas at the end of 1930 to 12,000 millions in 1933.[6]

An increase in agricultural indebtedness occurred also in

---

[1] INTERNATIONAL INSTITUTE OF AGRICULTURE: *Farm Accountancy: Statistics for 1930-31.* Rome, 1934, pp. 130-139 and 478-480.

[2] Cf. SECRÉTARIAT DES PAYSANS SUISSES: *Le surendettement et le désendettement dans l'agriculture suisse,* printemps 1934, Brougg, 1934.

[3] *The Agricultural Situation in 1931-32,* Rome, 1933, p. 480.

[4] *The Agricultural Situation in 1932-33,* Rome, 1934, p. 462.

[5] *Les conditions du crédit, op. cit.,* p. 25.

[6] *Ibid.,* p. 15.

Switzerland, but it should be noted that the debts of small holdings followed a different course from those of large estates. The latter (including all holdings of more than 30 hectares) reduced their debts by 6 per cent., whereas the indebtedness of small holdings (from 3 to 5 hectares) increased by 14 per cent. from 1930-32.[1]

In the United States, on the other hand, agricultural mortgages at the beginning of 1933 were estimated at 8,500 million dollars as against 9,500 millions in 1928.[2] This debt clearance, however, becomes less significant when compared with the development in the total value of agricultural capital (in thousands of millions of dollars) [3] :

1928	1929	1930	1931	1932
56.6	57.6	57.7	52.3	43.3

The amount of indebtedness thus constituted 16.8 per cent. of agricultural capital in 1928 and 19.6 per cent. in 1932. It is, however, true that the American farmers were able during the depression to pay off about 10 per cent. of their debts. The explanation of how this was done is to be found in the fact that the repayment did not take the form of payment to banks, but rather the form of foreclosures and forced sales.[4]

German farmers found the burden of their debts, and more especially the burden of interest, increasing to a serious extent until 1931-32. During the latter part of the depression, however, steps were taken by the Government which considerably eased the situation. The interest on borrowed capital which the farmers paid represented the following percentage of their net income (i.e. the surplus receipts after paying all production costs) [5] :

Average from	1926-27 to 1928-29	1929-30	1930-31
	57.5 per cent.	50.8 per cent.	58.2 per cent.
Average from	1931-32	1932-33	1933-34
	87.6 per cent.	68.2 per cent.	32.6 per cent.

Source : Cf. Appendix 19 B.

It was already pointed out that the farmers, suffering from the discrepancy between their reduced receipts and their working

[1] *Le surendettement et le désendettement dans l'agriculture suisse, op. cit.*, p. 10.
[2] *Les conditions de l'agriculture en 1932-33*, p. 70.
[3] *Year-Book of Agriculture*, 1934, p. 710.
[4] There is still a large volume of personal indebtedness among farmers in the United States (3,500 million dollars in 1933) which did not decrease during the depression.
[5] Cf. Appendix 19 B.

costs, which could not be cut down to a similar extent, sought refuge in subsistence farming. But they had no assurance that the long arm of the law, acting for the banks, would not get them in its grip and demand payment, although the farmers were making no profits from their holdings. In order to obtain a certain measure of security, they persuaded the State to take steps to safeguard them from bankruptcy and from being sold up. In any case, it was not in the interest of the banks to proceed to forced sales at a time when all farmers, or practically all of them, were more or less on the verge of bankruptcy. It was better for them to postpone payments, renew credits and grant fresh loans. In following out this policy, however, the banks demanded that the Government should cover their expenses. Since 1930, the problems of Government credits for farmers, of the conversion of agricultural debts and of the suspension of forced sales have been in the foreground.

In Greece, a moratorium was granted to certain groups of farmers by an Act of 4 January 1930. In Bulgaria, forced sales were suspended by the Act of 16 April 1932. In Poland, the State Agricultural Bank adopted a number of measures to reduce the interest rate, extend the period of grace for repayment, write off interest and arrears, prolong loans, etc. In Rumania, agricultural debt conversion was carried out by Acts of 16 April and 19 October 1932. In Denmark and Finland, large subsidies were granted to farmers, either in the form of credits or by means of reductions in taxation. Similar measures were taken in Germany, beginning with the Agricultural Protection Act of 15 April 1930. All these provisions prevented farms from being sold up when the farmers could not meet their financial liabilities.

When legislative measures did not arrive in time, the farmers frequently used force to oppose sales by order of the court. In countries where such incidents occurred (Germany, France, the United States, etc.), public opinion does not appear to have been on the side of the authorities.

Cases also occurred in which the seizure of property for debt enabled the debtors to recover their holdings and at the same time reduce their debts. The farm would be put up for auction and the debtor or a member of his family would be the only bidder. He would then obtain the farm for an amount less than his debt, and the bank would credit him with the reduced sum. This form of distraint was particularly frequent in Norway.

In the United States, the number of bankruptcies among farmers from 1930 to 1933 was less than in the period of prosperity (cf. table 28, p. 226).

In the Netherlands, the depression brought an increase in the absolute number and in the percentage of agricultural bankruptcies :

	1926	1927	1928	1929	1930	1931	1932
Total number of bankruptcies.....	3,900	3,706	3,293	2,792	3,178	3,617	4,669
Including :							
Bankruptcies in agricultural undertakings	130	139	100	111	143	286	391
Percentage	3.3	3.7	3.0	4.0	4.5	7.9	8.4

Source : Jaarcijfers voor Nederland, 1933, p. 193, 's-Gravenhage, 1934.

It must be remembered, however, that in the Netherlands in 1930 there were as many as 234,145 agricultural undertakings, so that the proportion of bankruptcies would not appear to be unduly high.

The same remark may be made with regard to Germany, where the number of bankruptcies fluctuated as follows :

	1927	1928	1929	1930	1931	1932	1933	1934
Total number of bankruptcies	7,870	10,595	13,180	15,486	19,254	14,148	7,954	6,207
Including :								
Bankruptcies in agricultural undertakings....	160	246	301	349	529	448	180	148
Percentage ..	2.1	2.3	2.3	2.3	2.7	3.2	2.3	1.9

Sources : Statistisches Jahrbuch für das Deutsche Reich, 1930-1934; *Wirtschaft und Statistik*, 1935, No. 3.

The question of the forced sale of agricultural holdings gave rise to considerable discussion in agricultural circles during the depression and also roused considerable interest in public opinion, but official statistics on the point are available only from 1930 onwards, so that there is no suitable basis for comparison (cf. table 29, p. 226).

The German Government felt itself obliged to give assistance to farmers who were in debt. The interest on mortgages was reduced by a Legislative Decree of 8 December 1931. In 1932 this measure was supplemented by a kind of partial moratorium

TABLE 28.—BANKRUPTCIES AMONG FARMERS IN THE UNITED STATES

Year	Bankruptcies among farmers	
	Number	Percentage of total bankruptcies
1923	5,940	17.4
1924	7,772	18.7
1925	7,872	17.8
1926	7,769	16.5
1927	6,296	13.1
1928	5,679	10.6
1929	4,939	8.7
1930	4,464	7.4
1931	4,023	6.7
1932	4,849	7.7
1933	5,917	8.9
1934	4,716	8.0

Source : Yearbook of Agriculture, 1935, Washington, p. 692.

TABLE 29.—FORCED SALES OF AGRICULTURAL HOLDINGS IN GERMANY

	1930 [1]	1931	1932	1933
Holdings put up for auction :				
Number	15,400	16,900	18,400	6,300
Area in thousands of hectares	254	421	343	116
Holdings sold by auction :				
Number	4,500	5,765	7,060	1,662
Area in thousands of hectares	139	177	154	27
Debts in millions of RM	70	219	206	41
Sale price in millions of RM	?	160	159	30

[1] Incomplete data.

Sources : Wirtschaft und Statistik, 1931, No. 18; *Statistisches Jahrbuch für das Deutsche Reich*, 1931-1934.

combined with the conversion of the farmers' debts. On 1 June 1933 a new Act was passed reducing the interest on all mortgages to 4½ per cent. and providing a procedure for debt clearance in agriculture. During the third quarter of 1933, 43,545 agricultural undertakings took advantage of this new procedure. This explains the sudden decrease in the number of forced sales.

In Germany and in every other country it was the possibility

of unwarranted distraint rather than the actual selling of farms that gave rise to so much discontent among the peasants.

It should be mentioned also that the devaluation of the currency which was carried out in many countries during the latter part of the depression appreciably reduced the volume of indebtedness of the farmers. At first there was only a formal reduction of the value of their debts expressed in gold, and the farmers were able to take advantage of the measure only in so far as agricultural prices rose. But these prices have been rising since 1934. In the United States and in most of the exporting countries they rose more rapidly than the prices of the articles purchased by the farmers, and this meant not only an improvement in the yield of agricultural holdings but also a reduction in the burden of their indebtedness.

F.—Summary

If we sum up the conclusions from the above analysis, the first point that will be noticed is that the agricultural depression was less general and less uniform than the industrial one : local differences in its intensity were much more pronounced than in the industrial section of the world economic system. The main cause of this diversity is obvious : it resulted from the policy of protection for agriculture. The fact that the large countries of Continental Europe—France, Germany and Italy—were able to protect their farmers against the fall in prices on the world market is of capital importance. Throughout the whole of the depression the countries that practised protection for agriculture constituted islands of artificially stabilised prices in the middle of the world market, where the prices of agricultural produce had fallen to an unprecedented extent. This protected section represented in round figures about 25 per cent. of industrial production and 15 per cent. of the agricultural production of the world.

The advantages of this system for the farmers who received protection are obvious, but they are not so obvious in the case of the urban population, for customs duties represented for them a tax for the benefit of the country districts. The estimates made of the rise in the prices of wheat in protected countries as compared with those on the open market are too well known

to be repeated here.[1] It should be noted, however, that there was not really any absolute rise in agricultural prices; all that was done was to prevent them from falling.

The consequences of agricultural protection must be considered from the point of view of the world economic system as a whole. It has often been stated that in the countries that practised a protectionist policy for agriculture the area under crops was unduly extended, while there was an accumulation of stocks in exporting countries. It is impossible to find definite facts in support of this view : the total area under cultivation for the five chief cereals in France, Germany and Italy was slightly less in 1931 and only 0.5 or 0.6 per cent. higher in 1932 and 1933 than the average for the years 1925 to 1929. On the average for the four years of the depression the area under these crops was exactly the same as during the four years of the boom (cf. Appendix 20 C).

Thus tariff policy prevented a decrease in the area under crops in the countries that applied it and favoured the redistribution of that area according to the needs of the national economic system. But it had nothing to do with the over-production of cereals in the world—if, indeed, there was over-production.

It has also been asserted that the policy of protection for agriculture proved an obstacle to the international exchange of agricultural produce and kept the surplus that was intended for the world market in a limited area where it could not be utilised. This view cannot be accepted without reservation. The volume of world exports of foodstuffs did not fall to any marked extent until 1932, and the decrease in 1933 may be attributed to the distribution of the harvest that year rather than to any particularly strict tariff barriers (cf. Appendix 20 D).

In point of fact the volume of foodstuffs exported during the depression was practically the same as during the preceding period. The sufferings of farmers in the exporting countries were due not so much to a shrinkage in exports as to the fall in the prices obtained for their produce.

The influence of tariff measures on the level of agricultural prices on the world market is undeniable : the comparative rise in prices in the protected area naturally increased the fall in prices

---

[1] Cf. League of Nations : *Considerations on the Present Evolution of Agricultural Protectionism*, pp. 21-22.

outside, and in this way " agricultural over-production " in the " free " section of the world economic system was aggravated by the tariff policy of the protectionist countries. Even if that be so, however, it does not settle the question whether the world could have escaped more easily from the depression by abolishing tariff barriers or by adopting a series of measures to stop the fall in agricultural prices on the open market as well as on the protected markets.[1]

Moreover, in spite of the notorious lengths to which agricultural protection went in certain cases, it was impossible, as was shown at the beginning of this chapter, to protect prices entirely by means of tariffs. There was no country in which the peasants did not suffer to some extent from the depression. Even the farmers who did not suffer severely from the depression felt themselves surrounded by dangers : they were between the anvil of their strict obligations and the hammer of falling prices.

Agriculture had two means of defence against these dangers, and both have been shown in action in the preceding pages.

In the first place, the farmer could take refuge in subsistence farming, dismissing his farm servants, refraining from renewing his equipment, postponing repairs, cutting down the volume of chemical fertilisers, restricting his personal consumption of purchased goods, refusing to pay his taxes or the interest due to the bank, and living in fierce isolation on the produce of his own labour. Some peasants, if asked " What did you do in the great depression? ", could reply, as did the Abbé Sieyès after the French Revolution, " I subsisted ".

The second course taken by the farmer when he found the very basis of his existence menaced was to appeal to the Government to intervene.

In the present chapter two groups of measures have been touched upon that were taken by Governments in various countries to assist farmers : *(a)* the maintenance of agricultural prices by tariff policy; *(b)* the protection of farmers who were in debt by the prolongation and extension of credits, debt conversion, the suspension of distraint, moratoriums, etc. This list could be supplemented by adding the regulation of the consumption of agricultural produce, the fixing of minimum prices, and subsidies

[1] The author had in mind international agreements to regulate and restrict the production of certain commodities, as was done by the A. A. A. in the United States.

of all kinds. In many countries the question of agricultural indebtedness was a decisive factor in determining monetary policy.

On studying the economic policy of various countries during the depression one is astounded to find how many Acts and Decrees were passed to protect national agriculture. The volume of legislation dealing with the industrial depression during the same period was far smaller in most countries. One possible reason for this disparity is that the two problems were not equally easy to solve : what the farmers wanted was well known, but no agreement could be reached as to the measures to be taken to help industry. But surely there was another difference between the two sections of the economic system.

The depression, by altering the quantitative ratio between industrial production and agricultural production, would appear also to have changed the relationship between social forces. Industry was not only the starting point of the depression but was also held to be mainly responsible for the disaster. It was alleged to have been guilty of excessive mechanisation, careless investment and financial crashes that caused a stir in the world and that could have been avoided with a little prudence. Against the farmer no such accusations could be made. He continued to work as usual in his fields and to draw produce from the land that had belonged to his fathers. He did not feel himself superfluous or an outcast, as did the unemployed man who had abandoned the towns and came begging employment and food in the country. When the farmer in turn found himself faced with the possibility of ruin, he revolted, whereas the industrial unemployed had become incapable of revolt.

The depression tended to produce discord within the ranks of wage earners in industry, to cut down their strength, and to turn the one against the other. In agriculture, on the other hand, the depression united the farmers, stimulated their activity, and taught them to use various political weapons. This outburst of activity in the country was further favoured by the fact that the towns had been crushed under the burden of unlimited and apparently unending distress and had lost heart for the struggle.

CHAPTER III

THE MIDDLE CLASSES

A.—Composition of the Middle Classes

The importance of the middle classes in modern society is due on the one hand to their numerical strength and on the other hand to the fact that they possess a large fraction of the national income. But they constitute a heterogeneous group, the boundaries of which are very vague. This group can be defined only in terms of the neighbouring social groups, one of which is clearly lower and the other higher.

The middle classes include: *(a)* the privileged grades of the wage-earning or salary-earning occupations, which are distinct from the bulk of the proletariat in agriculture, factories and offices; and *(b)* small producers and independent traders who are not really capitalists. In the middle classes will also be found persons who work with their hands and live on the income from their property, as well as persons who have no property and no paid employment but who live on a small pension paid to them for one reason or another. One should also include State officials and the bulk of the liberal professions.

The middle classes predominate in agricultural districts: in addition to small farmers who are both employers and workers, there are the traders, craftsmen and members of the liberal professions living in small country towns and with an essentially peasant *clientèle*. These persons constitute the majority of the rural population, the minority consisting of members of the proletariat and capitalists in the strict sense.

In the large towns in industrial areas, also, the middle classes are far from being a negligible quantity.

Some idea of what the middle classes represent in modern society can be obtained from the figures for the distribution of the working population and of income in the United States

immediately before the depression in 1929. At that time there were 47.2 million persons gainfully occupied distributed as follows [1] :

	In millions
I. *Wage earners :*	
Agriculture, forestry and fishing	3.0
Mining, manufacturing industry and commerce	19.2
Domestic and personal service	4.3
Total...	26.5
II. *Salaried workers :*	
Managing and technical staff of undertakings	2.3
Foremen and lower grades of management	1.7
Office staff	7.5
Total...	11.5
III. *Non-corporate enterprisers :*	
Farmers	6.0
Traders	1.8
Liberal professions	0.6
Other occupations	0.8
Total...	9.2

Source : M. LEVEN, M. G. MOULTON and C. WARBURTON : *America's Capacity to Consume* Washington, 1934, p. 31.

Capitalists in the strict sense, by which is meant persons living on the income from their capital, are not mentioned separately in this enumeration, but they are included in the working population either as enterprisers, if they manage an undertaking, or as salaried workers, if they receive an allowance or salary as directors, members of boards of management, etc.

Groups I, II and III of the above classification do not correspond exactly to the author's classification, which contrasts the middle classes with the proletariat on the one hand and capitalists and enterprisers on the other; the two classifications overlap. The lower limit of the middle classes cuts into Group II (salaried workers), whereas the upper limit passes somewhere through Group III (non-corporated enterprisers).

In Group II some categories of salaried workers belong to a social grade that is very close to that of the wage earners. The same cannot be said of such groups as public officials, teaching staff, etc. By their standard of living and habits these groups belong to the middle classes. In the same class must also be included the managing and technical staff of undertakings. In fact,

[1] The figures given below differ slightly from the estimates made by the author on the basis of the census of April 1930.

about half Group II might be considered as belonging to the proletariat and the other half as belonging to the middle classes. The majority of Group III also belong to the middle classes.

Of the 6 million farmers in the United States, only a few thousands were large capitalist landowners in 1929, the rest having to content themselves with a very modest return for their hard exertions.[1] The latter all belong to the middle classes and mostly to the lower grades of that category. It may be mentioned in passing that these small farmers constitute the real backbone of agriculture in the United States, being responsible for almost 95 per cent. of the agricultural production of the country.

The remainder of Group III (non-corporate enterprisers) comprises traders, craftsmen, industrialists, members of the liberal professions, etc. An approximate classification of most of these by income in 1929 has been made as follows :

Income of less than 2,000 dollars	2,071,000
„ 2,000 - 5,000 dollars	625,000
„ 5,000 — 10,000 „	156,000
„ 10,000 — 100,000 „	54,000

Here again the large capitalist enterprisers represent only a few thousands, whereas those with small incomes number millions.

The total figures for the middle classes will then be as follows :

	In millions
Salaried employees and public officials	From 5.5 to 6
Farmers	6
Craftsmen, small industrialists, traders and liberal professions.....	2.8
Total ...	From 14.3 to 14.8

The upper income limit of this social group might be fixed approximately at from 5,000 to 10,000 dollars. The lower limit falls as low as the most modest earnings of wage earners.

[1] According to a recent estimate, agricultural holdings in the United States are distributed as follows :

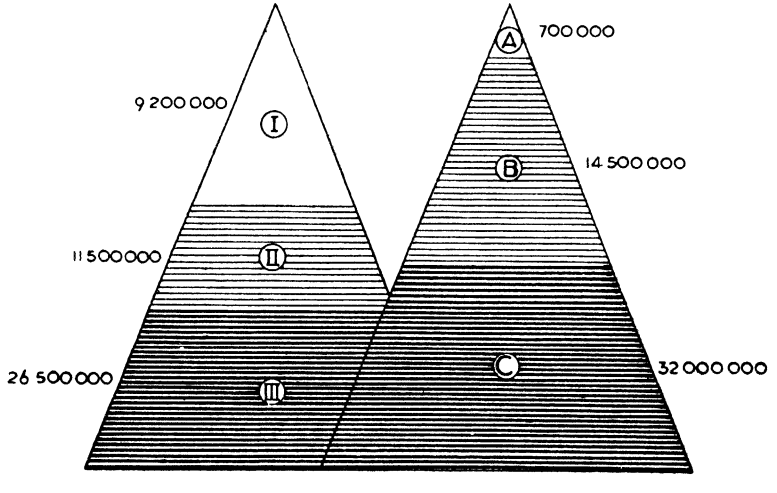
Gross value of output in 1929	Number of holdings
Under 2,500 dollars	5,079,676
From 2,500 to 10,000 dollars	1,118,218
» 10,000 to 50,000 »	87,417
» 50,000 to 200,000 »	3,055
More than 200,000 dollars	282
Total ...	6,288,648

Source : America's Capacity to Consume, op. cit., p. 198.

The total amount of the direct income of the middle classes in the United States in 1929 was more than 20,000 million dollars, of which 5,000 millions constituted the income of farmers and 15,000 was distributed as follows : 5,000 to 6,000 millions for small traders, industrialists, craftsmen and the liberal professions, 3,300 millions for public officials and 6,000 to 7,000 millions for salaried employees.

If the income from pensions and capital be taken into account, the share of the middle classes in the national income would probably amount to about 25,000 million dollars. It is thus possible to estimate the numerical and economic importance of the middle classes in the United States. In this country of social contrasts, with millionaires at one extreme and the proletariat at the other, the middle classes constituted immediately before the depression some 30 per cent. of the population, drawing about 30 per cent. of the national income (cf. diagram XLIV).

DIAGRAM XLIV.—DISTRIBUTION OF THE WORKING POPULATION IN THE UNITED STATES (1929)



I. Working on own account.
II. Salaried employees and public officials.
III. Workers.

A. Capitalists.
B. Middle classes.
C. Proletariat.

It would be a mistake to consider that this estimate holds good for other countries. In Great Britain, for example, the middle classes are not so important. Out of a total occupied population

of over 21 million persons (according to the 1931 census) the following may be said to belong to the middle classes.

	Millions
All persons working on their own account	1.3
The great majority of heads of undertakings	From 1 to 1.1
Administrative staff of industrial undertakings (5 per cent. of total)	0.3
All persons employed in public administrative services.	0.3
A large fraction of clerical and professional workers (teaching, medicine, etc.)	From 1.6 to 1.8

(Cf. Appendix 21 A.)

The middle classes would therefore make in all between 4.5 and 4.8 million persons, as compared with about 100,000 large-scale capitalists on the one hand and from 16.1 to 16.4 million wage-paid workers on the other. In this last group a distinction could be made between workers in employment (from 13.6 to 13.9 millions) and the unemployed (from 2 to 2.5 millions).

According to this very rough and approximate estimate the middle classes in 1931 made up about 21 or 23 per cent. of the total occupied population of Great Britain, or between 23 and 25 per cent. of the population actually in employment. The percentage is lower than the United States, mainly because of the relative unimportance of agriculture in the United Kingdom.

In Germany,[1] France and Italy, on the other hand, the middle classes are relatively more important numerically than in the United States, but without special research it would be impossible to say whether they obtain as large a share of the national income as in the United States.

In agricultural countries of primitive economic structure, practically the whole of the working population falls within the middle classes.

As the question of agriculture was dealt with in the preceding chapter all that remains to be discussed in the following pages is the situation of the other fraction of the middle classes during the depression, and more especially the position of craftsmen, small industrial entrepreneurs, traders and civil servants. This enumeration is not complete. It would be interesting, for example, to discuss the position of salaried employees and professional workers. The author has refrained from doing so because no data are available on which definite conclusions could be based.

[1] Cf. Appendix 21 B.

B.—Craftsmen and Small Industrial Entrepreneurs

The restriction of economic activity of all kinds and the decline in the purchasing power of the consumers—in short, the depression—obviously affected the crafts and small-scale industry as well as large-scale industry. There was however an important difference between the way in which these two sections of industry suffered.

The position of small undertakings in the modern economic system depends on their ability to hold their own against large-scale capitalist undertakings in all cases where the producer must deal directly with the individual consumer. The large undertaking with a wage-paid staff is unable in this field to destroy the influence of the small entrepreneur or craftsman, although the latter is constantly under the menace of competition by larger undertakings. Those small undertakings have a difficult struggle for existence and they sometimes feel that they have reached the limit of their powers, but nevertheless they are able to adapt themselves subsequently to new conditions and to retain their traditional position. For instance, when means of transport were revolutionised the blacksmith at the entrance to the village changed into a motor mechanic, and thus there was no decrease in the number of small undertakings.

Small-scale industry and the crafts have retained their important position in the production of consumers' goods, and more especially in two branches : the production of foodstuffs (butchers, bakers, etc.) and the clothing industry. To these must be added building (more especially decoration and the supply of various fittings) and repairs of all sorts.

In England and Wales, for example, the number of persons engaged in these branches in 1931 was as follows :

	Independent workers and heads of undertakings		Workers and salaried employees in employment	
	In thousands	Percentage	In thousands	Percentage
Clothing	140.6	25.5	637.2	11.3
Food, drink and tobacco...	51.7	9.4	507.2	9.0
Building	108.7	19.8	738.1	13.1
Total ...	301.0	54.7	1,882.5	33.3
Other branches of industry	248.8	45.3	3,763.3	66.7

Source : Census of England and Wales, 1931, Industry Tables, London 1934, pp. 1-6.

The same concentration of small undertakings in these particular branches of industry will be found in France, Germany, United States, etc. No matter how violent the fluctuations in the economic cycle may be, the thousands of bakers, butchers, dressmakers, shirtmakers, hosiers, fitters, carpenters, locksmiths, etc., retain their position.

This is due to the part played by small undertakings in economic life just as much as to their structure: the smallest and most numerous undertakings of this type continue to exist until the owner dies or is unable to continue in business; their existence does not necessarily depend on their producing a sufficient profit, as is the case with large capitalist undertakings.

We may take as an example the development of industrial establishments in Germany from 1925 to 1933 (table 30):

TABLE 30.—INDUSTRIAL ESTABLISHMENTS IN GERMANY IN 1925 AND 1933

a = small establishments (employing from 1 to 5 persons).
b = medium and large establishments (employing more than 5 persons).

Branches of industry	Number of establishments				Staff (in thousands)			
	1925		1933		1925		1933	
	a	*b*	*a*	*b*	*a*	*b*	*a*	*b*
Mines.....	1,423	1,519	419	890	2	806	1	450
Quarries, brick and clay	20,762	14,136	24,937	9,161	41	644	47	355
Metal works ..	861	2,705	1,009	1,620	2	618	3	281
Metal articles, machines, electrical engineering, etc.	191,888	46,164	221,509	26,444	383	2,319	411	1,142
Chemicals	4,552	4,082	4,490	3,192	10	303	10	239
Textiles	109,783	13,204	58,815	8,781	139	1,074	77	780
Paper and printing	24,665	11,100	26,749	9,043	47	529	51	408
Leather, rubber and asbestos.	31,212	3,698	34,539	2,012	57	174	54	115
Wood [1]	208,718	30,748	211,386	14,413	371	707	347	299
Food and drink.	259,160	34,213	262,522	40,427	601	764	689	730
Clothing	572,008	27,761	522,988	13,490	832	596	699	347
Building	180,509	46,440	226,815	34,075	344	1,192	406	602
Water, gas and electricity ..	8,528	2,898	5,001	2,946	8	140	11	129
Total ...	1,614,069	238,668	1,601,179	166,494	2,837	9,867	2,806	5,877

[1] Including musical instruments, etc.

Sources : Statistisches Jahrbuch für das Deutsche Reich, 1932, pp. 82-83; *Wirtschaft und Statistik*, 1935. No. 7, pp. 240-242.

It will be remembered that during that period the German economic system passed through the rationalisation depression of 1926, the astounding revival of 1927 to 1929 and the deep depression of 1929 to 1933. None of these changes altered to any appreciable extent the number of small establishments or the number of persons they employed; the storm would seem to have passed over their heads. All those violent fluctuations affected medium and large-scale industrial undertakings but they stopped at the threshold of the small workshops of craftsmen.[1]

It should be noted that the immunity from cyclical fluctuations—in the sense that there was no change in the number of establishments or the number of persons they employed—applies only to quite small undertakings, for even those employing four or five persons were more sensitive to the effects of the depression than undertakings in which the owner worked alone or with one or two assistants. The distribution of establishments of different sizes in German industry in 1925 and 1933 is shown in table 31.

TABLE 31.—INDUSTRIAL ESTABLISHMENTS IN GERMANY IN 1925 AND 1933 [1]

Number of persons employed per establishment	Number of establishments			Persons employed (in thousands)		
	1925	1933	1933 as percentage of 1925	1925	1933	1933 as percentage of 1925
1–3	1,506,266	1,582,552	105.6	2,257.4	2,339.0	103.6
4–5	185,451	172,090	92.8	809.3	750.3	92.7
6–10	113,966	93,054	81.7	840.3	678.2	80.7
11–50	95,696	60,696	63.4	2,092.5	1,284.2	61.4
51–200	25,559	14,964	58.5	2,397.8	1,420.2	59.2
More than 200	7,298	4,508	61.8	4,587.0	2,584.4	56.3
Total ...	1,934,236	1,927,864	99.7	12,984.4	9,056.4	69.8

[1] The above figures include a small number of forestry and fishing undertakings, etc.
Source : Wirtschaft und Statistik, 1935.

[1] It is true that the depression caused a large number of medium-sized establishments to pass into the category of small establishments but that makes little difference in our conclusion. If no undertakings had disappeared or if no large and medium-sized establishments had amalgamated—and the only possible development for them was to be transformed into small workshops—the number of these small workshops would have increased by about 70,000 undertakings employing between 250,000 and 300,000 persons. This influx alone would not suffice to explain the astonishing stability of this section of industry.

In the case of medium and large establishments Germany possesses current statistics based on the reports of the mining and factory inspectors. The advantage of these statistics is that they enable one to study the changes in the number and staffs of various groups of industrial establishments at different periods during the depression. These figures for the years 1926, 1929 and 1932 are given in Appendix 22.

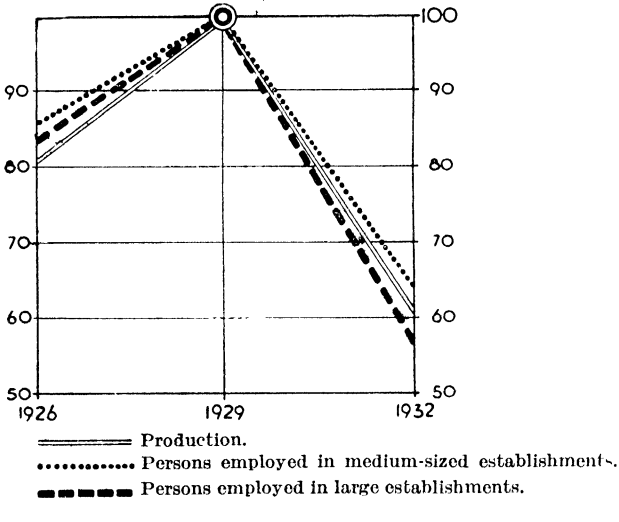
It is interesting to compare the changes in industrial establishments with the changes in the volume of production in Germany (basis : 1929 = 100) :

	1926	1929	1932
Volume of industrial production ...	80.5	100	61.0
Number of establishments :			
Medium establishments.....	91.1	100	67.1
Large establishments	88.3	100	61.2
Staff employed :			
Medium establishments	85.5	100	63.5
Large establishments.....	83.7	100	56.9

(Cf. diagram XLV.)

It will thus be seen that large-scale industry is particularly sensitive to cyclical fluctuations, but medium-sized undertakings

DIAGRAM XLV.—INDEX NUMBERS OF PRODUCTION AND EMPLOYMENT IN INDUSTRIAL ESTABLISHMENTS IN GERMANY
(1929 = 100)



are not far behind. The relative stability of medium-sized establishments in the food and drink trades, the chemical industry,

textiles, paper and printing, and the distribution of water, gas and electricity will be noted. On the other hand, the decline was extremely violent during the last depression in building and allied branches of production (quarries, brick making, woodworking, etc.). There is no trace of this decline in the number of small establishments or their staffs, which remained stubbornly in their place.

On this point the experience of the United States would appear to be the opposite to that in Germany. In the study of national income in the United States from 1929 to 1932, to which frequent reference has been made in the previous pages, an estimate is given of the number of entrepreneurs in various branches of economic activity during the depression (cf. table 32).

TABLE 32.—NUMBER OF ENTREPRENEURS IN THE UNITED STATES

(In thousands)

Branches of activity	1929	1930	1931	1932
Agriculture	5,565	5,621	5,700	5,804
Mining, manufacturing and construction	*315*	*290*	*274*	*247*
Transportation	169	174	173	161
Trade	1,601	1,435	1,213	1,130
Services	677	680	662	656
Miscellaneous	692	689	682	680
Total...	9,020	8,889	8,704	8,677

Source : National Income, 1929-1932. Washington, 1934, p. 33.

According to this survey the number of industrial entrepreneurs fell from 315,000 in 1929 to 247,000 in 1932—a fall of 22 per cent. But a little thought leads one to the conclusion that these calculations are based on a misunderstanding. The number of entrepreneurs in industry was determined by these American investigators in the following manner :

Entrepreneurs :	1929	1930	1931	1932
In the mining industry ...	14,109	14,109	14,109	14,109
In manufacturing industries	133,173	108,108	92,365	64,693
In construction	167,811	167,811	167,811	167,811

Source : National Income, 1929-1932, pp. 58, 75 and 84.

One is then lead to ask why the figures for the manufacturing industries fell while those for mining and construction remained

unchanged.[1] In other words, why did the number of entrepreneurs in mining and construction remain unchanged when there was a sudden drop in the number in manufacturing industries? The reasons for this divergence between sets of figures that ought to have shown the same trend are obvious. The figures for mining and construction cover all entrepreneurs, however small, but the same method was not applied to manufacturing industries, in which account was taken only of undertakings with an annual production exceeding 20,000 dollars.[2]

In any case, the authors of *National Income*, 1929-1932, make definite reservations concerning their estimate of the number of entrepreneurs, because they realise that it is a very rough one (" at best well-considered guesses ").

Special attention should be drawn to their conclusions : " Thus, to the fact that the total number of entrepreneurs shows but little decline from 1929 to 1932 is not to be attributed too much significance. But this failure of the total to contract does show that for farmers and entrepreneurs in the field of service bad business does not bring with it an immediate separation from activity, for the simple reason that one's economic activity is bound with the whole pattern of life, in which changes cannot be made very easily. What does occur is a marked contraction of income." [3]

These conclusions might be applied more generally. What these American writers discovered with regard to farmers and entrepreneurs in the field of service applies equally to all small industrial entrepreneurs, for they also find it difficult to change their mode of life. A craftsman does not give up his workshop because it has ceased to pay. Like the peasant in the fields who can no longer sell his produce, he stays where he is. There are other resemblances between the position of craftsmen and that

---

[1] According to these statistics the number of entrepreneurs in manufacturing industries was equal to 74 per cent. of the number in mining and construction in 1929. In Great Britain, on the other hand (in 1931), the proportion was 327.1 per cent.

[2] This can easily be seen by comparing the number of industrial entrepreneurs in 1929 (133,173) with the results of the census of industry made during that year :

	Number of industrial establishments
Production from 5,000 to 20,000 dollars ...	69,423
Production from 20,000 to 100,000 dollars .	75,225
Over 100,000 dollars.....	66,311

[3] *National Income*, 1929-1932, pp. 32-33.

of small peasants during the depression. The craftsmen are also able, to some extent, to substitute the work of members of their family for wage-paid labour. This is strikingly borne out by the results of the census of the population in Germany in 1933. The distribution of persons over industrial occupations in Germany was as follows :

	1925	1933	1933 as percentage of 1925
	In thousands		
Independent workers and entrepreneurs.	1,466	1,517	103.5
Members of the family assisting the head of the undertaking	220	273	124.1
Workers and salaried employees in employment	11,379	7,064	62.7

It is very difficult to state exactly to what extent the volume of activity of small industrial undertakings and workshops in the crafts declined as a result of the depression. Obviously the reaction was not the same in every country or in every branch of production. In the food and drink trades and in the production of consumers' goods in general the reaction must have been less violent than, for instance, in building, and certain groups of craftsmen were even able to increase the number of their customers as a result of the depression (repairs of all kinds increase when it becomes impossible to buy new clothing). In the towns, what chiefly affected small-scale industry was the decline in the purchasing power of the population, whereas the country districts suffered also from the return to subsistence farming. This latter phenomenon explains why craftsmen in agricultural countries suffered particularly severely from the depression. The reader will recall the change that took place in Bulgarian industry : [1]

	Share of the national income In millions of levas	
	1929	1932
Large-scale industry (including mines)...	3,299	3,619
Small-scale industry	3,675	2,200

Statistics are also available for Germany which show the development of the volume of business in the main branches of the crafts. These figures are based largely on the index numbers of purchases made by co-operative unions of craftsmen (cf. table 33).

Allowances must of course be made for variations in the prices of the materials purchased by these craftsmen. When this

[1] Cf. p. I26.

TABLE 33.—INDEX NUMBERS OF THE TURNOVER OF CRAFT SUPPLY CO-OPERATIVE SOCIETIES IN GERMANY

(Basis : 1929 = 100)

	1928	1929	1930	1931	1932	1933	1934
Bakers [1]	101.4	100	99.2	93.9	85.2	77.6	81.6
Butchers	102.8	100	87.7	59.3	48.1	53.9	65.4
Tailors	101.8	100	95.1	75.6	62.2	64.3	81.2
Cobblers	111.1	100	100	87.2	62.2	57.7	61.3
Upholsterers	103.5	100	84.8	62.6	46.3	47.5	65.8
Painters	97.0	100	85.6	57.5	41.6	48.4	63.6

[1] Local co-operative societies.

Source : Vierteljahrshefte fur Konjunkturforschung, Berlin, 1935, Vol. 13, No. 1, p. 6.

correction is made it can be concluded that the volume of business of craftsmen in Germany during the depression was not reduced to the same extent as employment and production in medium and large-scale industry.

In industrialised countries the crafts and small-scale industry in general suffered not so much from a decrease in orders as from a fall in prices. The millions of small entrepreneurs continued their activities; they did not withdraw from business and they were not idle, but as their customers had no money they found it very difficult to make ends meet. Prices which barely sufficed to cover their costs were too high for the poor people who constituted their clientèle. Here again there is an analogy between the situation in small-scale industry and in agriculture during the depression.

But there were two very important differences between conditions in these two branches. The prices of manufactured articles did not fall as low as agricultural prices, so that the situation of craftsmen was rather more favourable than that of the farmers, but, on the other hand, small-scale industry could not follow the example of the farmer and fall back on subsistence economy.

The depression, which neither interrupted nor reduced to any violent extent the activities of small industrialists and craftsmen, meant to them above all a progressive fall in prices which involved cut-throat competition on a market in which purchasing power had suddenly decreased.

It was quite natural that these small entrepreneurs should look upon the competition among themselves as being a form of

pressure from without. Indeed there was justification for such an interpretation : the small undertakings felt the competition of large-scale industry much more severely during the depression than during the boom, for the large industries tended more and more to spread their activities into fields that the craftsmen were accustomed to consider their own. It will suffice to mention the repair services that many factories and large shops introduced during the depression.

C.—Traders.

The situation of small traders during the depression was similar to that of small industrialists and craftsmen. Independent work and small undertakings, however, play a more important part in commerce than they do in industry. In Great Britain, for example, in 1931, there were in commerce 471,900 persons working on their own account and 391,500 heads of undertakings, as compared with 1,727,400 workers and salaried employees.[1] For every 100 wage-paid or salaried workers, therefore, there were 50 entrepreneurs, the majority of whom had small undertakings and must be classified among the lower groups of the middle classes.

In Germany in 1933 there were 4,379,000 persons in commercial occupations, of whom 712,000 were unemployed. The remaining 3,667,000 included 1,193,000 entrepreneurs and 488,000 members of their families, the number of workers, salaried employees and officials amounting to 2 millions.[2]

The proportions were much the same in France. According to the census of 1931, the 2,695,000 persons employed in various branches of commerce were distributed as follows :

Heads of undertakings	726,000
Persons working on their own account	544,000
Total...	1,270,000
Salaried employees in employment	1,023,000
Workers in employment	353,000
Total...	1,375,000
Unemployed (salaried employees and workers)..	49,000

Source : Statistique générale de la France : *Bulletin trimestriel*, Vol. XXIV, No. III, April-June 1935, pp. 398-399.

[1] Not counting unemployed persons. Cf. Appendix 21 A.
[2] Cf. Appendix 21 B.

In the United States, commerce is more centralised, but the census results show that behind the brilliant frontages of the great stores there are large numbers of small traders. In 1930 there were 6,081,500 persons engaged in commercial occupations in the United States. Of this number 1,703,500 were retail traders, 83,500 wholesale merchants and 79,400 entrepreneurs, proprietors and managers of commercial undertakings of all kinds. If we include bankers, exchange brokers, insurance agents, etc., the number of independent persons engaged in commerce would probably be about 2.5 millions. There are also 3.5 million workers and salaried employees, some of whom were out of work at the time of the census.

Japan is the country in which the preponderance of independent work in commerce is particularly marked. According to the 1930 census the occupied population of the country was distributed as follows (in thousands) :

	Employers	Persons working on their own account	Salaried employees and workers	Total
Agriculture and fishing ...	4,393	840	9,491	14,724
Industry and mines	692	922	3,913	5,527
Communications.....	69	124	916	1,109
Public services, etc.	51	184	1,796	2,031
Commerce	931	1,320	2,263	4,514
Domestic service and miscellaneous.....	1	36	1,330	1,367

Source : INTERNATIONAL LABOUR OFFICE : *International Labour Review*, Vol. XXXI, No 3, March 1935, p. 441.

Independent persons therefore constituted about half the total number engaged in commerce in Japan, as compared with 37 per cent. in agriculture, 29 per cent. in industry, etc.[1]

When studying the social consequences of the depression for persons engaged in commerce, one must consider mainly not the large undertakings and their financial difficulties but the hundreds of thousands or even millions of small traders. It is true that technically speaking the circulation of goods could have been carried on by a form of commercial organisation using a smaller amount of human labour, but it was not in a period when tens of millions of workers and salaried employees were unemployed that

[1] It may be mentioned that the percentage of the occupied population of Japan engaged in commercial occupations increased from 11.7 in 1920 to 15.3 in 1930. It would seem probable that this increase was due in part at least to the influx to commercial occupations of persons who could not find employment in other branches of the economic system.

one could think of rationalising commerce and thus condemning the former independent traders to join the ranks of the unemployed.

We may consider first some statistics showing the development of commercial undertakings during the depression in the United States.

	1929	1933
Wholesale trade :		
Number of establishments	169,654	164,170
Persons employed :		
In full-time employment / On short time	1,605,042	1,096,977 / 125,944
Wages and salaries (in millions of dollars)	3,010	1,714
Net sales (in millions of dollars)	68,950	32,151
Retail trade :		
Number of stores	1,543,158	1,526,119
Proprietors	1,510,607	1,574,341
Persons employed :		
In full-time employment	3,833,581	2,703,325
On short time	676,559	730,327
Wages and salaries (in millions of dollars)	5,190	2,910
Net sales (in millions of dollars)	49,115	25,037

Source : Statistical Abstract of the United States, 1935. Washington, 1935, p. 771.

The change in the number of wholesale establishments faithfully reflects the decline in industrial activity. The fall in their turnover (from 68,950 million dollars to 32,151 millions) is due in part to the fall in prices. If these figures are converted on the basis of the official index number of wholesale prices (which fell by 31.9 per cent. from 1929-1933) the decrease in the volume of goods sold may be estimated at 33 per cent., which is exactly the extent to which the undertakings reduced their staffs. At the same time wages and salaries also fell, but to a less extent than the fall in wholesale prices. This explains the increase in the ratio of wages to turnover in wholesale undertakings (from 4.3 per cent. in 1929 to 5.3 per cent. in 1933).

The characteristic feature of the development of retail trade is the change in the structure of commercial undertakings : there was an increase in the volume of independent labour and a decrease in the number of wage and salary earners employed.

Retail prices in the United States fell by 24.6 per cent. from June 1929 to June 1933 (according to the official cost of living index). On this basis the shrinkage in the volume of retail sales may be assessed at 31 per cent., and this also agrees with the decrease in staff among retailers.

There would have been perfect equilibrium if the quantity of independent labour (and the number of persons dependent on that labour for their existence) had decreased in the same proportion. In other words, as there were in 1929 1,510,607 retail traders in the United States, their number should have fallen in 1933 to 1,078,000 in order to enable them to retain their normal volume of business (and their usual level of profit). But the actual number in 1933 represented a surplus of half a million retailers who were not required. Where two shops could have existed comfortably there were three struggling for custom. Each one had to make tremendous efforts to sell its goods, cover its expenses, collect enough money to pay urgent debts and endeavour to avoid bankruptcy.

The same characteristics can be observed in Germany. The distribution of persons engaged in commerce according to the census figures for 1925 and 1933 was as follows (in thousands):

	1925	1933	Increase or decrease
Independent entrepreneurs	1,142	1,194	+ 52
Members of the family assisting the head of the household	408	488	+ 80
Wage and salary earners in employment	2,100[1]	1,986	— 114
Total ...	3,650	3,668	+ 18

[1] In part, an estimate.

Source: Statistisches Jahrbuch fur das Deutsche Reich, 1932, p. 20; 1934, p. 20.

From 1925 to 1933, therefore, there was an increase in the amount of independent labour in German commerce (including banking, insurance, hotels and restaurants) which was quite out of harmony with the decline in economic activity in the country.

When comparing the statistics for 1933 with those for 1925 one must bear in mind the fact that this latter year marked the beginning of economic recovery in Germany and not the culminating point of the boom which preceded the depression. From 1925 to 1929 both commerce and industry followed an upward trend, which was reflected in an increase in the number of undertakings and in the number of persons they employed. The succeeding period, from 1929 to 1933, brought a reduction in the volume of production and exchange. The turnover of retail trade in Germany in 1933 was 27 per cent. lower than it had been in 1925; the level of retail prices (cost of living) during the same

period fell by 16 per cent. and the volume of commerce therefore contracted by about 13 per cent. Yet the decrease in the number of persons actually employed in commercial establishments was less than 5 per cent. The figures were as follows (in thousands) :

	Number of establishments		Persons employed (in thousands)	
	1925	1933	1925	1933
Commercial establishments employing from 1 to 5 persons ..	1,057	1,124	1,702	1,914
Commercial establishments employing more than 5 persons .	87	66	1,473	1,107
Total...	1,144	1,191	3,175	3,021

The medium and large undertakings adapted themselves to this new situation by reducing their staffs. But the number of small establishments in 1933 was much too large for a shrinking market. After rationalisation in 1926 and the contraction in the volume of trade during the depression, only 800,000 or 900,000 retail shops at most, employing from 1.3 to 1.4 million persons, could have paid their way in Germany. There was therefore a surplus of from 250,000 to 300,000 small shops which means that between 500,000 and 600,000 persons too many were trying to earn their living in retail trade and were having the greatest difficulty in doing so.[1]

In short, the position of small traders in Germany in 1932 was much the same as in America : where two shops could have made ends meet there were three, all of which were in difficulties. The small traders blamed the competition of the co-operative societies and the large stores, but the turnover of both those groups during the depression declined to practically the same extent as the turnover of specialised commercial undertakings or of commerce as a whole (cf. Appendix 23).

No such detailed statistics are available for Great Britain, but the divergence between the development of employment in commerce and in industry is remarkable. Table 34 shows the

[1] The surplus may have been even larger, for during the depression many " undertakings " blossomed forth that were on the border line between distribution services and mendicity. In 1929 there were 91,563 establishments of this kind employing 111,465 persons. In 1933 the German Statistical Services refrained from registering as traders all colporteurs and hawkers. The establishments of this class recognised as commercial undertakings were only 52,673, employing 58,951 persons. The 1925 statistics should have been corrected to make allowances for this.

fluctuations in the number of workers and salaried employees in employment in the United Kingdom (cf. also diagram XLVI).

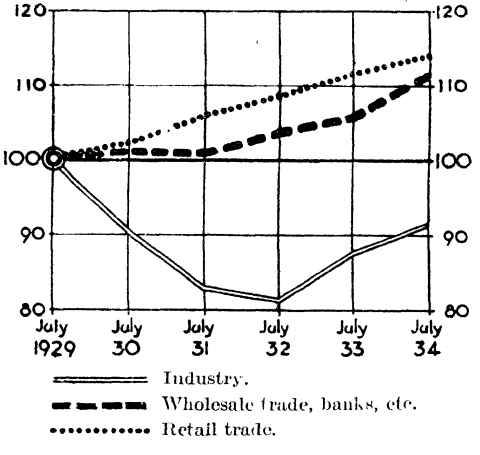
If we calculate the ratio of employment in commerce to employ-

TABLE 34.— EMPLOYMENT IN INDUSTRY AND COMMERCE IN GREAT BRITAIN AND NORTHERN IRELAND

	July 1929	July 1930	July 1931	July 1932	July 1933	July 1934
Industry and mines :						
In thousands	6,025	5,465	4,974	4,934	5,248	5,464
Index (basis 1929 = 100)	100	90.7	82.6	81.9	87.1	90.7
Wholesale trade, banks, etc.						
In thousands	215	216	216	222	226	238
Index (basis 1929 = 100)	100	100.5	100.5	103.3	105.1	110.7
Retail trade :						
In thousands	1,532	1,561	1,611	1,665	1,705	1,739
Index (basis 1929 = 100)	100	101.9	105.2	108.2	111.3	113.5

Source : Ministry of Labour Gazette ; cf. WL. WOYTINSKY : *Three Sources of Unemployment*, p. 73.

DIAGRAM XLVI.—FLUCTUATIONS IN EMPLOYMENT IN GREAT BRITAIN
(1929 = 100)



ment in industry (basis 1929 = 100) we will obtain the following index numbers for the years 1929-1934.

Ratio of employment :	July 1929	July 1930	July 1931	July 1932	July 1933	July 1934
Wholesale trade to industry	100	110.8	121.7	126.1	130.6	122.1
Retail trade to industry	100	112.3	127.4	132.7	127.8	125.2

Judging by the example of Germany and the United States, the increase in the amount of labour engaged in British commerce from July 1929 to July 1932, at a period when industry was reducing staff to a steadily increasing extent, was probably not limited to wage-paid workers. One may presume that the quantity of independent labour engaged in the marketing of commodities increased to an even greater extent during that period.

A further example can be seen in the fluctuations in the staffs of undertakings covered by the French Factory Inspectorate. Compared with the year 1930 (= 100) the number of persons employed varied as follows :

	March 1931	March 1932	March 1933	March 1934
All undertakings	94	80	78	76
Commerce	97	91	88	86

It will thus be seen that medium and large commercial undertakings in France did not reduce the number of persons they employed to an extent corresponding to the shrinkage in industrial activity. Most of the labour absorbed by French commerce went to small shops with which the factory inspectorate does not deal in its statistics. The census of 1931 gave the following figures :

Commercial establishments according to the number of salaried employees and workers employed	Number of establishments	Number of persons employed
No wage earners.....	159,920	—
1- 5 wage earners.....	249,330	440,388
6- 20 ,, ...	30,230	298,840
21-100 ,, ...	7,002	276,990
101-500 ,, ...	940	172,356
Over 500 ,, ...	109	164,585
Total...	447,531	1,353,159

Source : Bulletin de la Statistique générale de la France, Vol. XXIV, No. III, April-June 1935, pp. 404-405.

During the depression there was a reduction (of perhaps 15 per cent.) in the staffs of the higher group of commercial establishments. A certain number of undertakings in that group dropped to the lower category, in which there was only a slight reduction in staff. In any case the quantity of labour absorbed by innumerable small shops must have increased as the result of the depression, for in France more than in any other country there was a sudden development during the depression of commercial undertakings which fought for custom and destroyed each other mutually by cut-throat competition.

In the light of the survey given in the first part of this volume, it will be clear that the depression reduced the real importance of the services required by society of commercial establishments. At the time same there was no decrease in the quantity of human labour employed in the circulation and distribution of commodities. On the contrary, additional forces were employed in commerce, and in particular the quantity of independent labour in small-scale commercial undertakings increased to a greater extent than the amount of wage-paid labour in large undertakings decreased.

Under these new competitive conditions all the small traders had plenty of work to do. Although they were impoverished as a result of bad business conditions, they did not feel themselves as social outcasts. They blamed others for the competition that meant ruin for them, feeling themselves the victims of faults committed in quarters where their influence could not make itself felt. This situation tended to unite them and make them more active than during periods of flourishing business.

D.—Public Officials

Civil servants in the strict sense of the term constitute only a fraction, and often quite a small fraction, of the persons employed by the State, that is by the central Government, the municipalities, various public institutions, etc. One must add also the staffs of certain private undertakings owned in whole or in part by the State.

The extent of the branch of the economic system which recognises the State as its employer varies from country to country. In Germany, for example, the 1925 census showed that of the 19.7 million employed persons 3.3 millions were civil servants, salaried employees or workers in the service of the State or undertakings controlled by it.[1]

[1] The persons employed by the State were distributed as follows :

Public administrative services, army and Church		802,000
Industry :	Public undertakings	238,000
	Mixed undertakings	537,000
Commerce :	Public undertakings	116,000
	Mixed undertakings	30,000
Transport :	Public undertakings	1,191,000
	Mixed undertakings	163,000
Education, art, etc.		25,000
Health and hygiene		170,000
	Total...	3,272,000

Source : Statistisches Jahrbuch fur das Deutsche Reich, 1933, pp. 23 and 99.

Thus one employed person in every six recognised the State as his employer.

This ratio will not be found in all countries; it naturally decreases in countries in which the railways belong to private companies or where the State does not engage in any economic activity. At the same time, it would appear that in the vast sector of public services (transport, communications, teaching, health, etc.) the conditions of remuneration are directly or indirectly influenced by the scale of salaries of civil servants, irrespective of whether these services belong to the State or are controlled by private capital. This sector includes from 10 to 18 per cent. of the occupied population in various countries (cf. table 35).

TABLE 35.—NUMBER OF PERSONS EMPLOYED IN THE PUBLIC SERVICES IN VARIOUS COUNTRIES

Country	Transport and communications	Administration and national defence	Liberal professions	Total	
	In thousands			In thousands	As percentage of the occupied population
Germany (1925)	1,520.1	789.8	1,301.4	3,611.3	11.2
Great Britain (1921) ..	1,384.0	1,158.1	845.5	3,387.6	17.5
France (1926).....	1,192.2	827.2	764.6	2,784.0	13.0
Italy (1931)	794.6	512.8	570.0	1,877.4	10.9
Czechoslovakia (1930) .	289.4	272.0	228.4	789.8	13.4
Netherlands (1930) ...	296.7	274.0		570.7	17.9
Switzerland (1930)	85.0	26.4	118.5	229.9	11.9
United States (1930) ..	3,843.1	856.3	3,083.5	7,782.8	16.0
Canada (1931)	265.8	31.4	248.9	546 1	13.9
Japan (1930)	932.1	2,051.1		2,983.2	10.2

Source : Statistical Year-Book of the League of Nations, 1933-34, pp. 39-43.

The figures in table 35 naturally include a number of heterogeneous groups : *(a)* civil servants in the strict sense; *(b)* workers and salaried employees in autonomous services or those in private undertakings who receive more or less the same remuneration as public officials; *(c)* a number of workers and salaried employees who were affected by the depression in the same way as the staffs of private industrial undertakings; *(d)* a number of independent workers in the liberal professions. The situation of this last group during the depression was similar to that of crafts-

men and small traders, who struggled to obtain the custom of a clientèle that had been impoverished by the depression.

The following remarks refer only to groups *(a)* and *(b)* of those enumerated above. As a general rule, the remuneration paid by the State to its officials is slightly less than the salaries of employees of equal qualifications in private undertakings, the difference being made good by the advantages of being in State service. In spite of this, salaries and pensions constitute a large part of the budgetary expenditure.[1] Indeed, they constitute one of the most stable items in public expenditure: neither the number of officials nor their salaries can be reduced without special legislative measures.

The depression made it necessary for some countries to reduce their expenditure. It will be of interest to consider how this problem arose and how it was dealt with in various countries. The development of public finance during the depression was not the same in different States, and that for a variety of reasons: (1) the 1929 depression followed an upward trend of the business cycle in some countries and a period of economic difficulty in others; (2) in some countries the depression found a solidly balanced budget, and in others a chronic deficit; (3) every part of the public financial system is not equally affected by changes in business activity: the receipts from direct taxation, for example, reflect the decline in business with a certain time lag, whereas the receipts from indirect taxation (particularly on consumption) drop almost at once when the national income falls; (4) Governments and parliaments of the various countries were guided by very different conceptions in their financial policy during the depression.

Appendix 24 contains figures showing the development of receipts and expenditure in some 20 countries.

Before the depression Government receipts were increasing in Germany, France, Belgium, the Netherlands, Switzerland, Sweden, Norway, Poland, Rumania, Yugoslavia, Hungary, Bulgaria, the United States, Canada and Argentina. In all these countries the depression caused a drop in receipts. Generally speaking,

[1] The fraction of the total budget represented by these items was 25.6 per cent. in Germany (Federal Government and States, 1928-29), 14.2 per cent. in Great Britain (1929-30), 20.4 per cent. in France (1929); 24.7 per cent. in Italy (1929-30), and 37.4 per cent. in the United States (Union and States, 1926-27) (cf. *Statistisches Jahrbuch für das Deutsche Reich*, 1931, pp. 172-178, x).

the decrease in public income was more sudden in agricultural countries than in industrial countries. In Europe, for example, there was a considerable decline in receipts as early as 1930 in Poland, Rumania, Yugoslavia and Bulgaria, whereas in Germany, Great Britain, France, Italy and Switzerland this stage was not reached until later. In the oversea countries the shrinkage in public revenue was particularly marked. In Belgium, however, which is one of the most highly industrialised countries in the world, revenue declined by 15 per cent. in 1930 as compared with 1929.

The decrease in revenue continued in the United States, Japan and the Union of South Africa until 1931, in France, Italy, Bulgaria and Canada until 1932, in Germany, Switzerland, Sweden, Norway and Poland until as late as 1933, and in some countries even later. On the whole there was a very close direct relationship in every country between Treasury receipts and business activity.

The same cannot be said with regard to public expenditure. Great Britain, France, Italy, Belgium, the Netherlands, Switzerland, Sweden, Yugoslavia, the United States, Japan and Argentina spent much more in 1932 than they did in 1928, the reason is obvious : during the depression these countries were obliged to meet the urgent needs of social insurance and public relief and to advance large sums to farmers and banks by way of subsidies. In order to maintain the balance of their budget, they did away with extraordinary expenditure (investments), but that was not sufficient to meet the deficit and they were then led to reduce their expenditure on staff.

Some countries were able to use a sliding scale. This was the case in Great Britain, where an agreement was arrived at in 1920 that the salaries of civil servants should vary automatically with the cost-of-living index. The fall in the cost of living in that country had begun long before the world depression. The cost-of-living index moved as follows (1914 = 100) :

Annual average	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
	175	**175**	**172**	**168**	**166**	**164**	**158**	**147**	**144**	**140**	**141**

From 1924 to 1929 the rates of salaries were several times revised, always with a view to a reduction. As the depression caused prices to fall more rapidly, the procedure of half-yearly revision (in March and September) was adopted. The decrease

in the wages and salaries of civil servants from March 1924 to September 1931 was as follows : [1]

Remuneration in March 1924	Remuneration in September 1931	Percentage reduction
£	£ s d.	
3 per week	2 10 0 per week	16.7
4 ,,	3 7 9 ,,	15.3
5 ,,	4 5 9 ,,	14.2
300 per annum	259 per annum	13.7
500 ,,	442 ,,	11.6
800 ,,	724 ,,	9.5

In the later phase of the depression the situation became clearer because there were practically no appreciable variations in prices and steps could be taken towards stabilisation. The Government therefore adopted provisional regulations granting to all civil servants an allowance based on the index number 150 (the actual cost-of-living index number fluctuated at that time between 145 and 148). In 1932 the Government proposed that salary rates should be definitely fixed, but it agreed to postpone this measure until 1 April 1934. As the negotiations with the representatives of the civil servants gave no result, the Government decided, as from 1 July 1934, to include the cost-of-living bonuses as an integral part of civil servants' salaries, thus abolishing the sliding scale system. These allowances were calculated on the basis of a cost-of-living index of 155, but the salaries thus arrived at were provisionally subjected to a reduction of 5 points in the index in September 1931. This cut was restored in 1935, and civil servants' salaries are now calculated on the basis of an index number that considerably exceeds the actual rise in the cost of living (the index being 139 in March and April 1935).

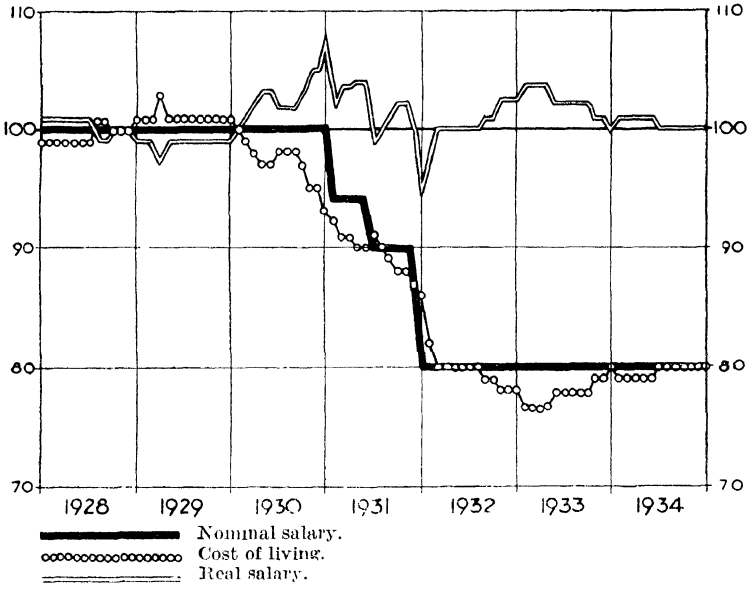
In Germany the salaries of civil servants at the beginning of the depression were determined by the Act of 16 December 1927 as amended by various Legislative Decrees. On 1 December 1930 all salaries were reduced by 6 per cent. as from 1 February 1931. The Legislative Decree of 5 June 1931 prescribed a further reduction of from 4 to 5 per cent., taking effect on 1 July. On 8 December 1931 the Bruning Government passed a Legislative Decree incorporating an extensive scheme of deflation and

[1] It will be noted that the percentage reduction was higher for the lower salary groups. The reason for this was that salary rates had been raised on a progressive scale in 1924 as compared with the original pre-war rates.

reducing civil service salaries to 80 per cent. of the figures laid down in the scale of 16 December 1927. When the Decree was promulgated the cost-of-living had not yet fallen by 20 per cent. from the 1927 level, but the Decree also made provision for a general lowering of prices. This aim was achieved very shortly, and from March 1932 onwards the real value of civil servants' salaries in Germany was about the same as in 1928-1929 (cf. diagram XLVII).

DIAGRAM XLVII.—FLUCTUATIONS IN SALARIES OF PUBLIC OFFICIALS IN GERMANY DURING THE DEPRESSION

(1928 = 100)



In France the problem of civil service salaries engaged the attention of public opinion from 1931 onwards. It gradually became more and more urgent as the deficit on the budget increased (cf. Appendix 24), but every proposal for reduction met with the resistance of the civil servants' organisations and the opposition of certain sections of opinion which feared the economic consequences of the proposed measures.

After a long discussion, the reduction of salaries was included in a programme of financial reform for restoring the balance of

the budget. On 1 March 1933 the salaries of civil servants were reduced according to the following scale :

The first 12,000 francs a year	No reduction.
Salary from 12,000 to 20,000 francs.....	Reduction of 2 per cent.
„ „ 20,000 to 35,000 „	„ 3 „
„ „ 35,000 to 50,000 „	„ 4 „
„ „ 50,000 to 65,000 „	„ 5 „
„ „ 65,000 to 80,000 „	„ 6 „
„ „ 80,000 to 100,000 „	„ 7 „
„ over 100,000 francs.....	„ 8 „

A rebate of 3,000 francs for a wife (not being a civil servant) and 3,000 francs for every child under age was provided.

There was strenuous opposition to the application of this Act. Two successive Cabinets were defeated in the Chamber of Deputies on the question of civil service salaries. Finally an Act of 23 December 1933 made provision for administrative reform, the suppression of certain posts, the prohibition of plurality of office, etc. To supplement these economies, the Act further provided for an " exceptional deduction " at a progressive rate from all salaries, pay, emoluments, wages and remuneration the net amount of which exceeded 12,000 francs a year payable out of public funds. The scale on which this deduction was made did not differ much from that laid down in the Act of 1 March 1933. The main difference was that the rate increased more rapidly, amounting to 6 per cent. of salaries of 50,000 francs. In addition, the rebate of 3,000 francs in respect of a wife was abolished; it was permitted in respect of children beyond the first two.

A few months later, on 4 April 1934, the Government approved a number of Legislative Decrees altering the rules governing civil servants. The most important measure was one providing for a reduction of 10 per cent. in the civil and military establishment of the State. At the same time an increase was made in the rates at which deductions were to be made from salaries, etc., the new scale being as follows :

5 per cent. for salaries	up to 20,000 francs.
6 „ „ „	from 20,001 to 30,000 francs.
7 „ „ „	„ 30,001 to 50,000 „
8 „ „ „	„ 50,001 to 80,000 „
10 „ „ „	exceeding 100,000 francs.

The deduction from the salaries of Cabinet Ministers was 15 per cent. and from the emoluments of the President of the Republic 20 per cent. Pensions were reduced to from 50 to 60 per cent. of salaries.

As these measures did not suffice to balance the budget, the French Government adopted the policy of progressive deflation on a large scale. This policy was initiated by a number of Legislative Decrees of 17 July 1935 which reduced by 10 per cent. all public expenditure, rents, mortgage charges, etc. According to these Decrees the salaries of civil servants were reduced by 10 per cent. when they exceeded 10,000 francs, by 5 per cent. when they fell between 8,000 and 10,000 francs and by 3 per cent. when they were less than 8,000 francs. The various allowances paid to public officials were also reduced and the qualifying period for promotion was extended.

Civil servants' salaries were on the whole reduced further than the fall in the cost of living. The official index number of the cost of living in Paris fluctuated as follows (basis 1914 = 100).

1928	1929	1930	1931	1932	1933	1934
519	556	582	569	526	520	516

In Italy, the salaries of all civil servants and other persons employed by the State or public undertakings were reduced uniformly by 12 per cent. by a Decree of 18 November 1930. It was provided, however, that no civil servant could receive a lower income than he had on 30 June 1929. A further reduction in salaries and in civil and military pensions was made by the Decree of 14 April 1934, according to which the reductions were progressive :

For salaries	up to 6,000 lire a year	No reduction.
„ „	from 6,000 to 12,000 lire	Reduction of 6 per cent.
„ „	„ 12,000 to 18,000 lire	„ „ 8 „
„ „	„ 18,000 to 24,000 lire	„ „ 10 „
„ „	over 24,000 lire	„ „ 12 „

The emoluments of members of the Government were reduced by 20 per cent. but their pensions were not reduced.

The fluctuations in the official cost-of-living index were as follows (basis : 1 June 1927 = 100).

	1928	1929	1930	1931	1932	1933	1934
Rome	94.0	97.3	95.5	87.2	84.3	80.0	—
50 towns	92.2	93.9	90.7	81.9	78.1	74.7	70.9

In Belgium, civil servants' salaries were first reduced on 1 June 1933. Apart from cases on plurality of office, all salaries exceeding 10,000 francs were reduced by 5 per cent. At the beginning of 1935 the reduction on salaries exceeding 10,000 francs

was increased to 10 per cent., and salaries below that limit were reduced by 5 per cent. Family allowances and pensions paid by the State or provident funds were also reduced.

A Royal Order of 28 January 1935 introduced a sliding scale for the calculation of civil servants' salaries. From 1 April 1935 onwards salaries and allowances were to be increased or decreased by 5 per cent. for every 35 points rise or fall in the cost-of-living index as from 700. The first increase takes place when the index reaches 718, the second when it reaches 753 and so on. The first decrease takes place when the index is 683, the second at 648, etc. In point of fact this meant a temporary reduction in salaries of 10 per cent., because the cost-of-living index had been as follows (basis April 1914 = 100).

Annual average	1928	1929	1930	1931	1932	1933	1934	April 1935
	820	875	874	798	720	705	666	629

In the Netherlands, the scale of civil servants' salaries introduced on 1 January 1920 was revised on several occasions. It was twice changed during the depression. On 1 March 1932 all salaries were reduced by from 2.5 to 5 per cent. for a period of 3 years.[1]

On 1 January 1934 the reduction in salaries, wages and allowances (except family allowances) was increased to 10 per cent. and the limit of salary that could be reached by unmarried officials was fixed at 90 per cent. of the maximum for married officials.

The cost-of-living index in the Netherlands during that period was as follows (basis 1911-1913 = 100).

1928	1929	1930	1931	1932	1933	1934
169.2	167.9	160.9	151.1	140.8	139.3	140.1

In Czechoslovakia, salaries and pensions were reduced progressively as from 1 January 1933 : salaries by from 3 to 15 per cent. and pensions by from 5 to 15 per cent. Christmas bonuses were suppressed at the same time. Remuneration not exceeding

---

[1] The reduction was applied in the following manner :

On the first 1,000 florins	2.5 per cent.
On the fraction from 1,001 to 2,000 florins for married persons	2.5 per cent.
On the fraction from 1,001 to 2,000 florins for unmarried persons	5 per cent.
On the fraction from 2,001 to 3,000 florins	5 per cent.
On all salaries over 3,000 florins	5 per cent.

9,000 crowns a year and family allowances were exempt from reduction.

The Decree of 22 December 1933 made a reduction of 4 per cent. on the salaries of all officials who had been affected by the first reduction. A reduction of 2 per cent. was also made on salaries from 7,200 to 9,000 crowns. A year later all these cuts were reduced by 30 per cent., to take effect from 1 April 1935. At the same time the limit of salaries exempt from reduction was considerably raised.

The variations in the cost of living in Czechoslovakia are shown by the official index number for Prague (basis 1927 = 100).

1928	1929	1930	1931	1932	1933	1934
100.1	99.6	99.9	95.4	93.6	92.8	91.7

In Switzerland, a law was passed in December 1932 prescribing a uniform reduction of 7.5 per cent. in salaries for the period from 1 July 1933 to the end of 1934. When this was rejected by referendum (27-28 May 1933) the Government was able to have another Act passed which had been previously accepted by the Federal Union of the staffs of public services and undertakings. According to this Act the salaries and wages of all persons employed by the Confederation were reduced by 7 per cent. for 1934 and 1935. The first 1,600 francs, together with family allowances and housing allowances, remained exempt from this reduction. Certain concessions were also made to married officials and persons working short time.

In Norway, the question was dealt with by an agreement between the Government and the organisations of civil servants. In exchange for an extension of the existing collective agreement until 1937 the civil servants accepted a reduction in salaries of from 3 to 4.5 per cent. for the years 1933-1934 and 1934-1935. It was stipulated that the maintenance of this reduction would depend on the fluctuations in the cost of living. When the agreement was drawn up the cost-of-living index in Norway was 147 (basis 1914 = 100) as against 173 on the average in 1928 and 166 in 1929. It was agreed that the percentage of the cut in salaries would be reduced by half if the index of prices rose to 154. If it passed 165 civil servants were to receive a cost-of-living bonus, whereas the State was to be entitled to discuss further reductions if the index fell below 130. As prices have remained stable since 1932 these provisions have not been applied.

In Finland, salaries were reduced in 1932 and 1933 by 5 per cent. for married officials and 10 per cent. for those who were unmarried. For 1934 the cuts were reduced to 4 and 8 per cent. respectively. Salaries of less than 1,500 marks a month were exempt.

In Poland, the Government abolished as from 1 May 1931 the allowance of 15 per cent. paid to civil servants. Two months later a further reduction of 12 per cent. took effect, and at the same time various cost-of-living bonuses were reduced. The limit of the total reduction was fixed at 35 per cent., which was more than the fall in the cost of living at that time. During the later period of the depression there were no further reductions in salaries, but from 1 October 1933 to 1 April 1934 steps were taken to reduce the number of persons in the service of the State by about 10 per cent.

In Rumania in December 1930, at a time when the fall in the cost of living had not yet made itself felt, civil servants' salaries were reduced on a progressive scale by from 10 to 23 per cent. and even by as much as 25 or 50 per cent. for the higher salaries in independent administrative bodies. Subsequently the attempt was made to reduce Government expenditure by placing certain groups of officials on the retired list (Act of 4 May 1933). The same purpose lay behind the Act of 18 August 1934, which provided for the revision of the Civil Service establishment and prohibited plurality of office. The special feature of this Act was the revision of appointments, promotions and confirmations of appointments made from 1 January 1924 onwards and the appeal that was made to all citizens to report any abuses. This revision was in accordance with the demands of Rumanian civil servants as expressed by their federation.

In Yugoslavia, where the cost-of-living index in 1933 fell to about two-thirds of what it had been in 1929 or 1930, the reduction in the remuneration of civil servants applied only to certain special cases (when several members of one family were employed in the public services, etc.). This reduction took effect on 1 May 1934.

In Hungary, on the other hand, salaries were reduced by from 10 to 15 per cent. and pensions by from 5 to 15 per cent. as early as 1931 (Decree of 31 August). As from 1 January 1932 a further reduction of from 2 to 5 per cent. in salaries and from 2 to 15 per cent. in pensions was made. The salaries of the lower grades were exempt from this reduction.

In Bulgaria, the Royal ukase of 4 January 1931 provided for a reduction of 10 per cent. in basic salaries exceeding 1,000 levas and a reduction of from 2 to 30 per cent. in supplementary allowances (not including family allowances) if together with the basic salary they exceeded 2,000 levas a month. Contributions to the pensions fund equivalent to these reductions were imposed on public officials entitled to pensions.

In the United States, civil servants' salaries remained unchanged right through the depression. This meant that during a period of general distress the real income of public officials increased in proportion to the rise in the purchasing power of the dollar.[1] When President Roosevelt came into power the Government obtained full powers to reduce civil servants' salaries and military pensions. Legislation for this purpose came into force on 1 April 1933, salaries being reduced by 15 per cent. A year later the cut was reduced to 5 per cent. and on 1 April 1935 it was abolished altogether, although the cost of living remained between 15 and 17 per cent. lower than it had been in 1928 or 1929.

In Canada the reduction in salaries was restricted to a few groups of officials and did not exceed 10 per cent.

In India the salaries of civil servants, with a few exceptions, were reduced by 10 per cent. for the period from 1 December 1931 to 31 March 1933. From then onwards the cut was reduced to 5 per cent. The cost of living in that country fluctuated as follows (base : 1914 = 100) :

1928	1929	1930	1931	1932	1933	1934
147	149	137	110	109	102	97

In Australia the reductions in salary were very much the same as the fall in the cost of living, amounting to about 17 per cent. in 1934.

In New Zealand in 1931, all civil servants' salaries were reduced by 10 per cent. On 30 April and 4 May 1932 a further reduction was made, this time on a sliding scale of from 5 to 12.5 per cent. On 1 April 1934 all salaries were increased again by 5 per cent.

These few examples will suffice to show the great diversity of the measures taken by Governments—a diversity that relates to the nature, scope, and date of the measures in question. Sometimes the reduction began in 1931 or even in 1930, whereas in

[1] Cf. Part I, p. 115.

other cases it was not until 1933 or 1934 that the policy of economy was inaugurated. On the whole there were few cases in which the reduction in the income of civil servants was as great as the fall in the cost of living.

Consequently this social group was not subjected during the depression to the humiliation of unemployment, the feeling of insecurity, the cut-throat competition for a reduced market, the growing difficulty of disposing of the product of their labour, or a decline in their real income.

The demand of society for administrative services was not reduced as a result of the depression. The contrary would be nearer the truth. It is true that certain economies were made by reducing railway staffs or dismissing a few teachers, but policemen, magistrates, judges, financial inspectors and tax collectors were all overworked. If the volume of services of the central administration can be measured by the number of Acts and Decrees promulgated, it will be found that the depression gave rise to an unprecedented burst of activity in this direction.

Such being the case, it was much easier to prepare legislation proposing a reduction in the number of civil servants than to give effect to such legislation.

No definite information is available as to the effects of the struggle to prevent multiple employment that went on in practically every country as a means of reducing expenditure on staff without having recourse to dismissal.[1] The results obtained would appear to have been slight.

Apart from certain autonomous services, it was difficult to reduce the staff of public administrative services to any appreciable extent. All that could be done was to reduce their salaries, either on the basis of a sliding scale, fixed in advance, or by special legislation. A study of the rates of reduction in various countries shows that civil servants were able to defend their interests far

[1] This problem gave rise to a considerable amount of feeling in every country. It was pointed out on the one hand that plurality of office reduced the number of persons employed. It was felt to be unjust that one person should have two or more posts, each representing a source of income, when so many other people were unable to find employment at all. But it was argued from the other side that the huge incomes of business men, financiers, directors, administrators, etc. were always based on a plurality of offices; at a time when work was scarce, earnings and profits were probably also low, and it was therefore unjust to prohibit multiple employment for poor people struggling to earn a living and to leave capitalists free to hold a variety of posts and earn large sums.

more effectively than workers. This is not astonishing, for their ranks had not been decimated by the depression, their organisations remained intact and were spared the difficulties under which so many workers' organisations collapsed, and their social strength increased with the importance of the tasks assumed by the State

E.—Summary

Among the varied outward signs of the influence of the depression on the occupational groups composing that heterogeneous and ill-defined category known as the middle classes, there is one phenomenon that is common to the situation of traders, craftsmen, the liberal professions, civil servants, and farmers : *the depression did not exclude the middle classes from employment.* There were certainly members of the middle classes who suffered from the depression, and others who profited by it, but there were none who were unemployed. They all remained in their jobs, they all worked, and they all felt themselves needed by the community.

The craftsmen and small traders increased in number and worked all the harder as their customers became fewer. The civil servants asserted, with considerable success, the principle of their acquired rights, and secured for themselves a reasonable standard of living in view of the growing distress of other social groups. The peasants escaped from the depression by having recourse to subsistence agriculture. In short, the fate of all these groups during the depression was the same : there was a comparative and absolute increase in their numerical and economic importance.

This was bound to be the case in view of the collapse of industry, which had been the most modern and the most dynamic sector of the capitalist economic system. The situation may be compared to a city surrounded by suburbs and fields. The wealthy quarters in the centre of the city took fire and all that was left was walls blackened by smoke. But in the less wealthy quarters on the outskirts and beyond the limits of the city life continued unchanged.

CHAPTER IV

SAVINGS DEPOSITORS AND CAPITALISTS

A.—Savings Depositors

Reference was made in the first part of this volume to the steady increase in savings in practically every country during the depression,[1] but the explanation of this phenomenon was left to the second part. The situation of savings depositors during the depression will be outlined in this chapter.

Before quoting statistics of savings, mention must be made of certain of their peculiarities: they are essentially secondary statistics based not on special enquiries but on the current reports of savings banks. The organisation of these banks in different countries varies according to the tradition and habits of the population and the guiding principles of financial policy. It is practically impossible to find a uniform definition for the scope of savings in each country or to compile exactly parallel statistics of depositors and their deposits. International comparisons in this field must be accepted with very great reservations: it is possible to compare the trends of the available series of figures, but not the absolute figures.

Savings institutions are generally taken to include ordinary savings banks (public or private), post-office savings banks and certain mutual credit institutes. But it cannot be said that all the deposits of these institutions are savings. In the strict sense of the term, savings must mean the sums that are provisionally withdrawn from normal circulation (earnings and expenditure) to be spent later or possibly to be handed on to a succeeding generation. In addition to real savings, the accounts of savings banks contain fluctuating items, such as sums that are left on deposit

[1] Cf. pp. 69-70.

for a few days only, perhaps from one pay-day to the next. These sums, even if they amount to many millions, do not constitute the savings of the population. The same remark can be made with regard to the money deposited by small property owners who keep their working capital in a savings bank. Moreover, savings in the strict sense of the term are not restricted to institutions officially recognised as existing for that purpose; they are also to be found in ordinary credit establishments, and particularly in insurance institutions, co-operative societies, etc. From this point of view the habits of the population vary at different periods and from one country to another. For this reason a decline in the deposits in savings banks is not always a sign of a decrease of the amount of savings in the country. Such a phenomenon can sometimes be explained by a change in the form of savings : savings depositors may begin to invest their money directly in Government securities, etc. Similarly, a sudden increase in the deposits of these funds is not a definite proof of an increase in the volume of savings : the success of savings banks may be explained by some change in their policy or in their rules, such as the raising of the maximum limit for deposits. In this latter event some sums that were kept in commercial banks may be transferred to savings banks. In general, there is practically always competition between savings banks, co-operative societies and commercial banks, each group trying to increase its deposits at the expense of the other.

It should be noted also that savings deposits, like those of commercial banks, increase automatically : the addition of interest to the capital may produce an increase during a period in which the new savings are counterbalanced or even exceeded by the sums withdrawn, provided that the surplus of the latter is not very large as compared with the capital involved.

These remarks show how difficult it is to describe exactly the development of savings in such a changeable period as the years 1929 to 1934. It is easier to understand this development if a longer period is taken as a basis—e.g. 1925 to 1934. In that case the development during the period of the depression can be compared with that during the boom period (cf. Appendix 25).

The first striking fact that will be noticed when studying the changes in the number of savings depositors (or, to be exact, in the number of savings books and accounts) in various countries is the amazing extent of saving. There are multitudes of depositors

in the various countries. At the end of 1929 they numbered some 16 millions in Germany, 20 millions in Great Britain (1927), 18 millions in France, 12 millions in Italy, almost 5 millions in Belgium and Australia, 4 millions in Sweden and Czechoslovakia, 3.5 millions in the Netherlands, 2 millions in Austria and Norway, almost as many in Denmark, and 35 millions in Japan. In Germany the number of savings books was exactly equal to half the working population. In France savings depositors represented 85 per cent. of the working population, and in Italy 70 per cent., whereas in Great Britain and in Austria the number of depositors was the same as the occupied population. In Norway and Australia there were twice as many savings accounts as there were persons engaged in any occupation. It is true that the same person may have several savings books, and quite often the father of a family opens a special account for each of his children. A person may also open several accounts so as to get over the regulation prescribing the maximum amount that may be deposited. Apart from such cases, there can be no doubt that very large sections of society practice saving in the sense of possessing a savings book or account, and consider themselves as savings depositors.

It would be interesting to know the distribution over the various depositors of the enormous sums shown in the lower part of the table in Appendix 25, which amount to thousands of millions of marks, francs, crowns and dollars. There are very few statistics that throw light on this point, but the French savings banks provide very instructive information which is possibly typical for countries in which saving by small depositors is highly developed.

Table 36 (p. 268) shows the distribution of savings accounts and the amounts deposited in savings at the end of 1929.

Of the total of 17,922,000 books, there were 7,566,000 in which the deposit did not exceed 100 francs. In more than half of those the sum on deposit was less than 20 francs. Those savings accounts have obviously no practical importance. There were, in addition, about 3 million accounts between 100 and 500 francs and 1,500,000 between 500 and a thousand francs.[1] In short, there were in France at the end of 1929 about 12 million savings accounts with less than 1,000 francs in each. The total volume of

[1] In part an estimate.

TABLE 36.—DISTRIBUTION OF SAVINGS IN FRANCE AT 31 DECEMBER 1929

Size of accounts	Number of books in thousands			Amount in millions of francs		
	Private savings banks	National Savings Bank	Total	Private savings banks	National Savings Bank	Total
Up to 100 francs ...	3,833	3,734	7,566	141.8	164.7	306.5
100 to 3,000 francs	3,407	3,838	7,245	3,684.0	5,470.3	9,154.3
3,000 „ 7,500 „	1,176	829	2,005	5,734.6	4,816.4	10,551.0
7,500 „ 12,000 „	575	94	669	5,463.6	1,036.2	6,499.8
Over 12,000 „	425	13	438	5,289.7	171.1	5,460.8
Total...	9,415	8,507	17,922	20,313.7	11,658.7	31,972.4

Source : STATISTIQUE GÉNÉRALE DE LA FRANCE. *Annuaire statistique*, 1931, Paris, 1932, pp. 268-269

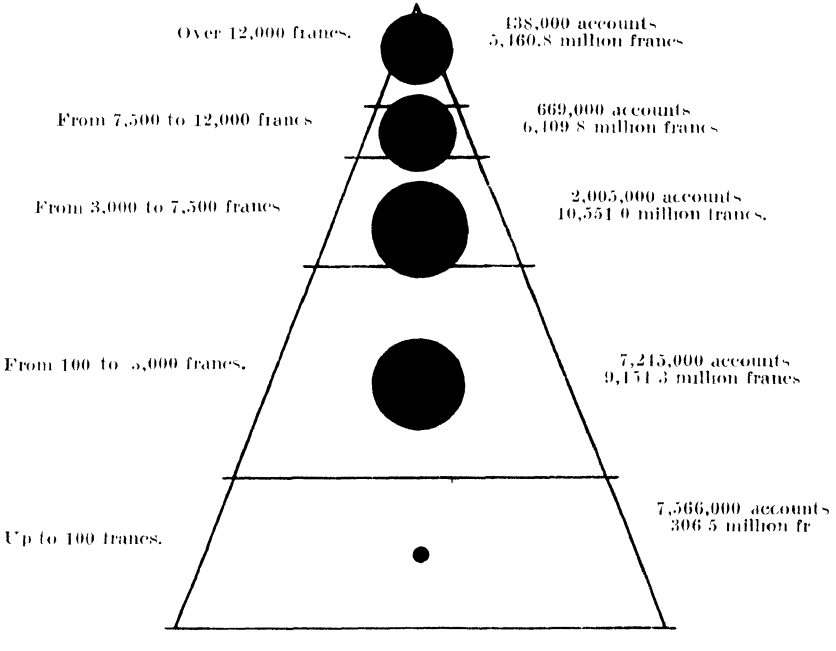
those small savings may be estimated at not more than 3,500 millions of francs, or about 250 to 300 francs each on the average.

The middle group contained 4,800,000 depositors with from 1,000 to 7,500 francs each or more than 16,000 millions in all. The higher group (with more than 7,500 francs in each account) contained about 1,100,000 depositors with a capital of more than 12,000 million francs between them. In this group 438,000 persons owned about 60 per cent. more than the 12 million small depositors (cf. diagram XLVIII).

It will be seen that there are the same inequalities in the distribution of savings as in the distribution of capital in general. Depositors include persons from a variety of grades of society : the majority are comparatively poor persons who have a savings account but have little in it and have no reserves beyond their monthly income, whereas the bulk of the sums in savings accounts is in the hands of a relatively small group of persons in a more favourable situation. It may be asked whether these represent two distinct sections of society : on the one hand the millions of wage earners, domestic servants and minor salaried employees who have a will to save but are never able to set aside any appreciable amount, and on the other hand peasants, craftsmen, small traders, members of the liberal professions, civil servants, persons with private means—in short, the middle classes.

French statistics offer no definite reply to this question. They contain no information as to the distribution of the volume of savings over various occupational and social groups. They do,

DIAGRAM XLVIII.—DISTRIBUTION OF SAVINGS IN FRANCE IN 1929



The pyramid of savings in France at the end of 1929
The area of each section of the triangle represents the number of accounts in each group
The black circles represent the amounts on deposit

however, show the occupations of new depositors. The distribution of new depositors over the private savings banks (in thousands) was as follows :

	1928	1929	1930	1931
Total number of new books	583.2	511.6	569.1	589.4
Including :				
Minors with no occupation	210.1	191.1	189.5	211.3
Persons engaged in gainful pursuits	373.1	320.5	379.6	378.1

Among the members of the working population who opened accounts the proportion of various groups was as follows (in thousands):

	1928	1929	1930	1931
Wage earners	124.1	106.1	121.6	107.8
Salaried employees	54.1	51.3	61.0	63.3
Domestic servants	24.7	21.7	24.7	22.2
Soldiers and sailors	6.0	4.4	4.4	4.7
Professional workers	10.4	8.8	10.3	12.3
Heads of undertakings	48.4	39.6	48.1	49.8
Property owners, persons of private means, etc.	105.4	88.6	109.4	118.2

Source: Bulletin de statistique et de législation comparée, May 1932, p. 1058, August 1932, p. 262; July 1933, p. 17; August 1934, p. 467.

These statistics certainly contain representatives of the two social groups mentioned above, but no definite information is available as to the way in which the deposits are distributed between them. In 1931, however, it will be seen that there was a decrease in the number of new accounts opened by workers, whereas the number of new depositors belonging to the middle classes increased appreciably. The reports of the National Savings Bank show even more clearly the changes caused by the depression in the composition of savings depositors. In 1932, the National Savings Bank opened 705,334 new accounts as compared with 718,409 in 1929. Of these totals 147,529 were opened in 1929 and 151,611 in 1932 on behalf of minors with no gainful occupation. Consequently, the number of accounts opened by persons engaged in some occupation was 570,880 in 1929 and 553,723 in 1932. They were distributed as follows (in thousands):

	1929	1932	1932 as compared with 1929
Wage earners and casual labourers	202.1	146.9	— 55.3
Salaried employees	92.6	87.9	— 4.6
Domestic servants	33.0	36.4	+ 3.4
Soldiers and sailors	18.6	25.1	+ 6.5
Professional workers	15.5	27.0	+ 11.5
Heads of undertakings	43.8	50.3	+ 6.4
Property owners, persons of private means, etc.	165.2	180.2	+ 15.0
Total...	570.9	553.7	— 17.2

Source: STATISTIQUE GÉNÉRALE DE LA FRANCE: *Annuaire statistique*, 1931, p. 270; 1933, p. 265.

It is probable that the distribution of accounts that were closed during the depression moved in the opposite direction. The workers and salaried employees who were thrown out of

employment would be bound to use up their small savings but the progress of saving in other sections of the population would continue.

It is only natural that when there is large-scale unemployment money will be saved mostly by the occupational groups whose income is more or less unchanged (holders of Government loans, pensioners, civil servants, etc.). Persons who during the depression have much the same nominal income as during a period of prosperity can easily set aside a fraction of their earnings. They are encouraged to do so both by the increase in the purchasing power of money and by the decline in the general standard of living of their circle as well as by the fear of losing their position if the depression continues. Moreover, small property owners and heads of undertakings whose business is bringing in nothing or next to nothing prefer to save their money rather than to spend it in the usual directions even when it would be necessary to do so to renew or preserve their property or plant.

Thus savings may develop even during a period of growing distress, but their social character changes in the process. In addition to these general considerations—which were based on French statistics but which apply equally to other countries—there was in France a special reason that helps to explain the striking increase in savings deposits at the beginning of the depression (from 38,600 million francs on 31 December 1930 to 50,900 millions on 31 December 1931 [1]). The main reason for this increase was the transfer of a certain number of deposits from commercial banks to savings banks as a result of the maximum amount permitted on deposit being raised on 31 March 1931 from 12,000 to 20,000 francs for individuals and from 50,000 to 100,000 francs for companies.

The accounts of private savings banks were distributed as follows :

	No. of accounts (in thousands)		Amount on deposit (in millions of francs)	
	31 Dec. 1930	31 Dec. 1931	31 Dec. 1930	31 Dec. 1931
Accounts of less than 3,000 frs.	7,153.8	7,048.0	3,920	4,138
From 3,000 to 12,000 frs.	1,904.8	1,922.9	12,298	12,491
Individual accounts over 12,000 frs..	564.6	863.5	7,263	13,428
Accounts of companies	4.4	4.0	88	118
Total...	9,627.5	9,838.4	23,570	30,175

Source : Bulletin de statistique et de législation comparée, July 1933, p. 17; August 1934, p. 467.

[1] Cf. Appendix 25.

The amount on deposit in private savings banks thus increased during 1931 by 6,605 million francs, of which 410 millions were distributed over the 9 million accounts of less than 12,000 francs each and 6,195 million francs were in accounts above that limit. It is clear that this phenomenon had no connection with the gradual accumulation of small savings.

But in 1931 the depression in France was only beginning. In order to assess the change that took place in savings in that country, one must compare the distribution of deposits at the end of 1932 and at the end of 1929. The following are the statistics for the National Savings Bank (cf. also diagram XLIX) :

Size of accounts	No. of accounts (in thousands)		Amount on deposit (in millions of francs)	
	31 Dec. 1929	31 Dec 1932	31 Dec 1929	31 Dec 1932
Up to 20 francs	2,036	1,589	32.7	16.2
From 20 to 100 francs	1,698	1,660	132.0	85.6
„ 100 to 3,000 „	3,838	3,988	5,470.3	3,653.6
„ 3,000 to 12,000 „	923	1,899	5,852.6	11,858.8
Over 12 000 francs	12	533	171.1	8,000.2
Total...	8,507	9,669	11,658.6	23,614.3

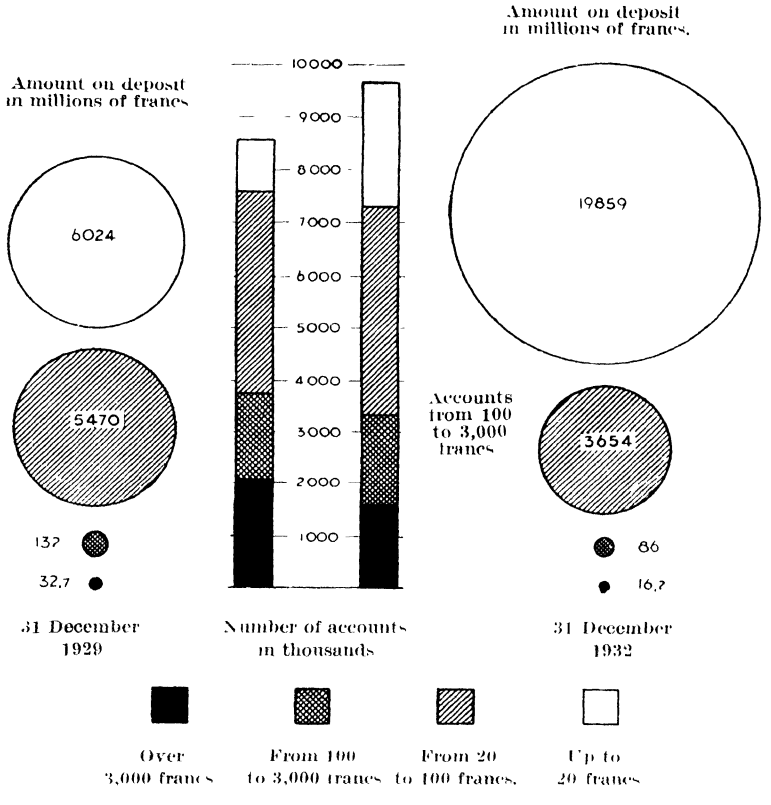
Source : STATISTIQUE GÉNÉRALE DE LA FRANCE. *Annuaire statistique*, 1931, p. 269, 1933, p. 265

In 1929, the fund had 3,734, 000 accounts of less than 100 francs, but in 1932 their number had fallen to 3,249,000. The question arises whether this was due to the movement of small depositors into a higher group or to the fact that a fraction of the poorer clients of the savings banks had simply withdrawn their deposits and a certain number of other depositors of the same group had used up a fraction of their savings. In the first case, the average amount of the small deposits should show an increase towards the higher limit (100 francs); in the second case, this amount should have fallen. In point of fact, it was 44 francs in 1929 and 31 francs in 1932. Similarly, the average amount of deposits between 100 and 3,000 francs fell from 1,425 to 916 francs.

It will thus be seen that the small and medium depositors (up to 3,000 francs per account) used up their savings during the depression, whereas the deposits in excess of 3,000 francs showed an increase, which was due in part to the sums paid in by large depositors (more especially to an increase in their number) and to the raising of the maximum limit for deposits.

In Germany the evolution of savings during the depression was quite different from what it was in France. The depression was

DIAGRAM XLIX.—DISTRIBUTION OF ACCOUNTS AND DEPOSITS IN THE NATIONAL SAVINGS BANK OF FRANCE IN 1929 AND 1932



too severe for the sums withdrawn by small depositors to be counterbalanced by the sums paid in by those who were unaffected by the depression. Moreover, in 1931 there was a bank panic in Germany which led to the withdrawal of deposits on a very extensive scale (cf. table 37).

In 1928, the net increase in savings (excess of sums paid in over sums withdrawn) was 1,940 million RM., as against 1,395 millions in 1929 and 875 millions in 1930. In 1931, however, there was a net decrease (excess of withdrawals over deposits) of 1,398 million RM., and in 1932 a further 624 millions were withdrawn. In 1933 the sums paid in again exceeded the amounts withdrawn. In short, the net amounts withdrawn during the most acute period of the depression came to 2,000 million RM. Most of

TABLE 37.—MOVEMENT OF DEPOSITS IN GERMAN SAVINGS BANKS

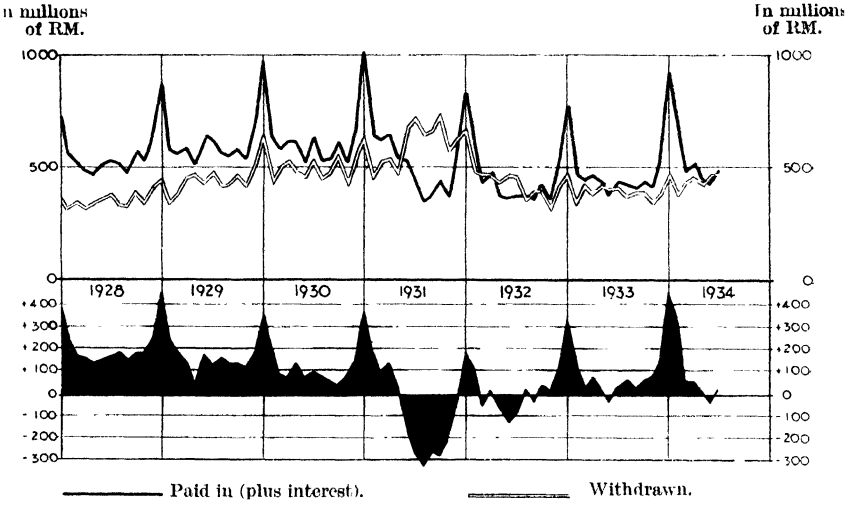
Year	Number of accounts (in thousands)	Paid in	Interest etc.	Withdrawn	Amount at the end of the year
		in millions of RM			
1928.....	12,497	6,141	428	4,201	7,205
1929.....	16,222	6,673	691	5,278	9,314
1930.....	17,977	6,917	575	6,042	10,752
1931.....	19,941	5,828	771	7,226	10,123
1932.....	21,585	4,786	625	5,410	10,195
1933.....		5,079	522	4,720	10,808

Source : Statistisches Jahrbuch für das Deutsche Reich, 1934, pp. 344-347.

this was withdrawn during the panic months from June to December 1931 (cf. diagram L).

Diagram L shows two curves, one of which (the black one) normally remains above the other, departing from it at the

DIAGRAM L.—MOVEMENT OF SAVINGS DEPOSITS IN GERMANY



beginning of each year and coming closer to it later. The black curve shows the variations in the monthly payments into savings banks (including the interest on deposits). The lighter curve shows the sums withdrawn. The black surfaces at the foot of the diagram show the net excess of payments or of withdrawals; it is

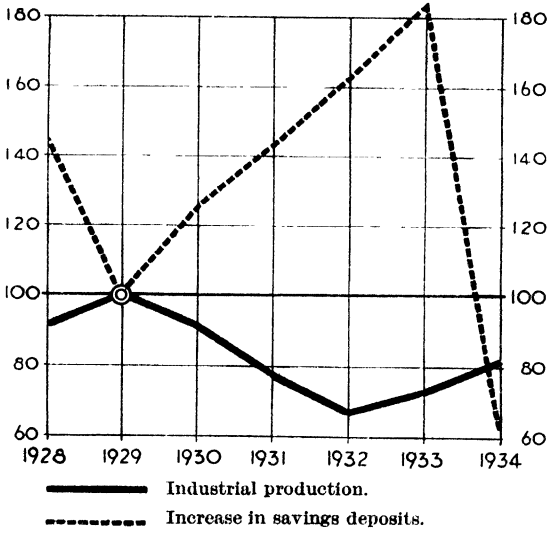
these that indicate most exactly the development of savings in Germany. Apart from seasonal fluctuations, the increase in savings had begun to slow down in 1929; the depression accentuated this trend, but until the summer of 1931 there was no reason to foresee the collapse that was to take place in the deposits of the savings banks. Moreover, the development of these deposits from 1930 to 1933 is by no means in harmony with the general trend of the depression in the country, which reached its lowest point in the summer of 1932. This was an independent movement effected by special causes, the most important of which was the banking panic.

In Great Britain the amounts on deposit in the savings banks remained practically the same throughout the whole of the depression. There was thus an equilibrium between the sums paid in, together with the interest on the capital deposited, and the sums withdrawn.

In Italy, savings progressed more quickly during the depression than in the preceding years. The divergence between the trend of the index of industrial production, which reflects the fluc-

DIAGRAM LI.—FLUCTUATIONS IN INDUSTRIAL PRODUCTION AND IN THE INCREASE OF SAVINGS DEPOSITS IN ITALY

(1929 100)



tuations in the intensity of the economic activity of the country, and the trend of savings is very striking (cf. diagram LI). This divergence suggests that the depression favoured the accumulation in savings banks of sums that in other circumstances would have been used for fresh investments or for renewing the equipment of small undertakings. If this supposition is correct, the increase in savings in Italy was probably accompanied, as in France, by far-reaching changes in the nature and social distribution of these savings.

Such a transformation was all the easier in Italy because deposits are very mobile in that country. The sums paid into and paid out by the savings banks annually exceed 60 per cent. of the capital, and there is no reason to believe that these withdrawals and payments are always made by the same persons or by the same occupational or social groups (cf. Appendix 25).

In the Netherlands, the amount of savings deposits includes the balance due to depositors by the banks of the Raiffeisen type, which are not only savings institutions but also mutual credit funds. The net savings accumulated by these banks must be calculated according to the excess of deposits over the advances made to customers. During the depression the advances made by the Raiffeisen banks increased to a greater extent than deposits. Consequently, when studying the variations in savings in the Netherlands one must either eliminate the Raiffeisen banks or deduct loans and advances from their deposits.

If the first method is chosen and only the private and post office savings banks are considered, the same phenomenon will be noted in their balance sheets as in Italy : the depression in the Netherlands did not interfere with the growth of savings, for new deposits increased more rapidly than withdrawals (cf. table 38).

The statistics of the United States show considerable progress in saving during the years 1930 and 1931, and a decline during the later years of the depression. On 30 June 1933 the amount on deposit was some million dollars larger than on 30 June 1929 (cf. Appendix 25). The increase in savings during the depression appears still more considerable if one includes not only the stock and mutual savings banks, but also the postal savings banks, which extended their scope considerably during the last few years (cf. table 39).

TABLE 38—MOVEMENT OF DEPOSITS IN THE SAVINGS BANKS OF THE NETHERLANDS

Year	Number of accounts at the end of the year (in 1,000's)	Paid in (without interest)	Withdrawn	Interest	Amount on deposit at the end of the year
		in millions of florins			
1927.....	2,901	281	267	14	656
1928.....	2,973	304	285	20	695
1929.....	3,074	326	310	21	732
1930.....	3,189	378	328	23	805
1931.....	3,311	444	384	23	888
1932.....	3,377	432	389	26	957

Source : Jaarcijfers voor Nederland, 1929, pp. 130-131; 1933, pp. 149-152.

The stability of savings appears almost miraculous if one thinks of the economic distress that reigned in the United States from 1930 to 1932. Savings deposits usually constitute the last reserve of the poorer classes against any personal set-back, loss

TABLE 39.—MOVEMENT OF SAVINGS DEPOSITS IN THE UNITED STATES

(millions of dollars)

Year	Amount on deposit at 30 June				Increase (+) or decrease (—) from 30 June of previous year
	Mutual savings banks	Stock savings banks	Postal savings banks	Total	
1924.....	6,693	1,746	96	8,535	+ 575
1925.....	7,152	1,918	98	9,168	+ 633
1926.....	7,525	2,021	101	9,647	+ 479
1927.....	8,040	1,662	115	9,817	+ 170
1928.....	8,668	1,561	119	10,348	+ 531
1929.....	8,904	1,450	128	10,482	+ 134
1930.....	9,206	1,389	148	10,743	+ 251
1931.....	10,035	1,199	306	11,539	+ 796
1932.....	10,040	974	682	11,696	+ 157
1933.....	9,760	795	976	11,531	- 165
1934.....	9,803	809	695	11,307	- 224

Source : Statistical Abstract of the United States, 1935, pp. 240-251.

of regular income, unemployment, etc. It may be asked why they did not fulfil this function during the years of the depression, when, according to certain American estimates, practically half the workers were out of employment. Did the unemployed wish

to keep intact the savings accumulated during the years of prosperity? Or was their share in the savings so insignificant that their withdrawal left no trace in the accounts of the savings banks? Or, possibly—and this suggestion seems the most plausible—these withdrawals were counterbalanced by an influx of new savings.

It is a curious fact that the number of depositors in the savings institutions in the United States increased during the depression, whereas the commercial banks had to close a large number of their accounts. The fluctuations in the number of depositors in the United States was as follows (in thousands) : [1]

	1927	1928	1929	1930	1931	1932	1933	1934
Savings institutions	11,190	11,643	11,875	12,077	12,544	12,735	12,995	13,342
Other banks [2]	37,165	41,545	40,889	40,052	38,855	31,617	26,267	26,220

[1] The figures refer to 30 June of each year.
[2] In 1928 the number of banks covered by these statistics increased (increase of 2,376,000 depositors); similarly, other banks were added in 1931 and 1932 (increase of 623,000 and 50,000 respectively).

Source : Statistical Abstract of the United States, 1935, p. 248.

It may be presumed that a certain number of depositors left the commercial banks to become customers of the savings banks.

In the United States statistics, the deposits in savings banks are considered merely as a fraction of the total savings of the country, which are taken to include all forms of bank deposits, the funds of insurance companies, the profits of joint-stock companies, etc. It is clear that savings, in this wide sense, could not remain unaffected by the ravages of the depression (cf. table 40).

The tremendous losses shown by the figures in table 40 were certainly not borne by savings depositors only; they represented in reality the losses of the national economic system as a whole.

To return to savings depositors in the narrow sense, it should be noted that the remarks made in the preceding pages refer to the nominal value of the deposits accumulated by savings institutes. The changes in the real value of these deposits during the depression were more complex.

In the first place, the fall in prices, and more especially in the cost of living, increased the purchasing power of the currency, and also the value of the sums deposited.[1]

On the other hand, the devaluation of the currency in so many countries during the later stages of the depression involved a

[1] Cf. p. 72.

TABLE 40.—MOVEMENT OF SAVINGS IN THE UNITED STATES

	1927	1928	1929	1930	1931	1932	1933	1934
Increase in savings and other time deposits, in banks and trust companies	1,395	2,322	195	261	—259	—3,938	—2,857	742
Increase in assets of building and loan associations	822	860	679	129	—412	—667	—773	527
Premiums paid to life insurance companies, less operatives expenses	2,079	2,296	2,430	2,573	2,730	2,594	2,421	2,564
Additions to surpluses of corporations.....	1,115	2,479	2,320	4,255	—7,327	—8,001	?	?
Total...	5,411	7,957	5,234	—1,292	5,268	—10,012	?	?

Source : Statistical Abstract of the United States, 1935, p. 248.

decrease in the value of all banks deposits, expressed in gold, including the deposits in savings banks. In so far as it caused a rise in prices, this measure reduced the real value of the amounts on deposit.

It would seem therefore that the depositors profited by the depression during its early phase, and were its victims during the later phase when the economic revival began. Attractive as this idea may seem, it must be rejected as erroneous. The great majority of the workers whom one has in mind when talking of savings never profited by the depression. Under the influence of unemployment they were obliged to draw on the reserves they had accumulated with so much effort and at the cost of so many sacrifices. It is true that in 1931 or 1932 their slender incomes enabled them to purchase a little more bread than in 1929, but this advantage was far from counterbalancing the losses they incurred as the result of the decline in employment.

Only the higher group of savings depositors can possibly have profited from the fall in prices. But in so far as their deposits were left in the banks to accumulate, instead of being converted into material goods, there was no profit for this group either.

If savings depositors did not profit from the fall in prices, it may be suggested that they lost part of their savings later, through the devaluation of the currency, whereby the State may have been said to have confiscated a fraction of their savings.

This would have been the consequence of devaluation if that measure had reduced the purchasing power of money as compared with the period during which the depositors accumulated their savings. With the exception of Greece, Spain and a few other countries, however, the cost of living at the end of the depression did not rise in any country to the 1929 or 1928 level. Great Britain, Sweden, Norway, Portugal, Canada, Australia, New Zealand, the Union of South Africa and some other countries, merely stabilised the cost of living at approximately the 1931 level, or at a level considerably lower than that of the period of prosperity. In Japan and the United States, on the other hand, there was a general rise in prices, but not up to the 1929 level.[1]

There is, therefore, no truth in the claim that devaluation robbed the small depositors of a fraction of their savings equivalent to the fall in the value of the national currency expressed in terms of gold.

Another fact is worthy of great attention : savings not only increased during these years of depression; they also changed their social character. Small deposits were swallowed up, as the result of poverty, which compelled millions of small depositors to spend all their savings. These sums were replaced in the savings banks by the deposits of persons more favourably situated : either those who had retained their normal income and were able to profit by the fall in prices, or those small traders or craftsmen who adopted this method of saving money instead of investing it in undertakings which were being run at a loss.

In any case only a fraction of the money withdrawn from consumption or from productive investment found its way into the savings banks; considerable sums were retained by individuals as a kind of absolutely safe reserve in the traditional stocking or in a safe.

It will never be known what sections of society hoarded money during the depression. It is obvious, however, that those who were able to put money aside must have had more than was strictly necessary for existence.

---

[1] Cf. Appendix 7 A.

France may be taken as an example for studying the amount of hoarding during the depression. The value of the bank notes in circulation at the end of each year (in millions of francs) was :

1929	1930	1931	1932	1933	1934	1935
68,600	76,400	85,700	85,000	82,600	83,400	81,100

But the decline in economic activity as shown by the shrinkage of industrial production should have reduced the volume of circulation to about the following figures (in millions of francs): [1]

1929	1930	1931	1932	1933	1934	1935
68,600	68,600	65,200	57,500	60,300	58,700	57,400

The fall in prices (increase in the purchasing power of the franc) should have contributed to the restriction of circulation and brought it to about the following level (in millions of francs) : [2]

1929	1930	1931	1932	1933	1934	1935
68,600	65,900	59,300	46,900	47,600	44,800	40,400

There was, therefore, a surplus of bank notes in the hands of the public which was not justified by the volume of economic activity in the country. The amount of this surplus was as follows (in millions of francs) :

1929	1930	1931	1932	1933	1934	1935
0	10,500	26,400	38,100	35,000	38,600	40,700

In part this surplus of notes can certainly be explained by a decline in the rapidity of circulation. Nevertheless, there were considerable sums (probably between 25,000 and 30,000 million francs at the end of 1934) which were simply withdrawn from circulation. The tying up of so much potential purchasing power was naturally an important factor in increasing the volume of unemployment in the country.

The same phenomenon can be noted in Italy, Belgium, Sweden, Norway, Switzerland, the United States, Australia, New Zea-

[1] This calculation is made on the assumption that half the economic activity of the country develops in direct proportion to industrial production, whereas the other half remains invariable. This assumption would appear to be justified *(a)* by the fact that agriculture in France employs about the same amount of labour as industry, and *(b)* by the fact that fixed incomes (from State loans, pensions, etc.) play a very important part in France. However, this is only a rough approximate estimate.

[2] This calculation has been made with the help of a combined index representing the mean of the index of wholesale prices and the cost-of-living index.

land, etc. Wherever the decrease in the volume of notes in circulation did not keep pace with the shrinkage of economic activity and the fall in prices, the question arises whether this divergence can be explained solely by the slackening of economic operations. If the divergence is considerable it suggests that a fraction of the bank notes was no longer in circulation but had returned to the old function of money, which was to be hoarded (cf. Appendix 27).

This archaic form of saving,[1] at a period when unemployment was increasing and production declining because of the shortage of markets, naturally formed an obstacle to the solution of the depression. The causes of this phenomenon are probably two : (1) the distrust which certain persons felt in the banks, the savings banks and any long or short term investment; (2) the relatively rapid formation of liquid cash reserves as a result of the fall in prices on the one hand, and the cessation of investment or even of the renewal of invested capital on the other hand.

B.— Persons of Independent Means

The statisticians of different countries are not agreed as to whether persons of independent means should or should not be considered as " gainfully occupied " From one point of view these persons have their own income which is sufficient, if necessary, for the maintenance of their family, and they might therefore be considered as economically independent. On the other hand, it can be argued that, as stockholders or pensioners, they do not engage in any occupation and cannot be classified in any of the main economic sections of society and should therefore be excluded from the gainfully occupied population.

Without endeavouring to settle the controversy, we may mention that the category of persons of independent means can be subdivided into two separate social groups : (*a*) persons living on a pension from social insurance or some other source; (*b*) persons whose means of existence consist of income from capital invested in securities issued by the State, municipalities, banks, railways, etc.

[1] The notes withdrawn from circulation need not necessarily be hoarded within the country. There can, for example, be no doubt that a considerable quantity of American bank notes were hoarded in various countries. The same possibility must be borne in mind with regard to French and Belgian notes.

The first group includes retired civil servants and persons in receipt of an old-age, invalidity or other pension. From the social point of view those pensioners belong partly to the middle classes and partly to the wage-earning class, and more especially the poorer section of it. Quite often the invalidity pension is not sufficient for their subsistence, and they are obliged to seek some employment compatible with their remaining working ability. This applies also to the pensions of the lower grades of civil servants, which are generally too small to constitute more than a supplement to the earnings the pensioner can otherwise obtain. It is true that in addition to these unduly small pensions there are in every country much larger pensions, some of which, indeed, were the object of criticism during the depression, as being too high.

As was pointed out above, the reductions in civil servants' pensions during the depression were completely counterbalanced by the fall in the cost of living. In the case of invalidity and old-age pensions the decline was even less marked. From this point of view, therefore, the depression had no prejudicial effects on the real income of pensioners. If the position of these persons is compared with that of their milieu, it will be found that during this period of economic distress they received more than they had received from the State during the period of prosperity. As an example of this the changes in the income of small pensioners in Germany may be examined.[1]

	1928	1929	1930	1931
In millions of RM.	5,147	5,318	5,507	5,167
In millions of " 1928 RM. "	5,147	5,246	5,671	5,768
As percentage of wages and salaries .	12.1	12.3	14.1	15.5

Source : " Das deutsche Volkseinkommen vor und nach dem Kriege ", *Einzelschriften zur Statistik des Deutschen Reiches*, No. 24, Berlin, 1932, p. 91.

These pensioners suffered more from the measures prohibiting multiple employment than they did from the reduction in their monthly pensions. Little information is available as to the amount of employment and home work among small pensioners or as to the extent to which they have complied with the legislative provisions of recent years. There can be no doubt that, apart from these restrictive measures, small pensioners who had supplementary employment have suffered from unemployment and business stagnation. But they were affected not as

[1] Civil servants', ex-service men's and invalidity pensions.

pensioners but only in so far as they were salaried employees, small traders, etc.

The situation of persons living on the income from their capital during the depression depended on the extent to which Governments and other debtors met their obligations by paying a fixed rate of interest or dividend. The question arises what sections of society own the securities in question.

In every country in which the Government is in the habit of having recourse to internal loans for raising money, Government securities are taken up by large sections of society, including not only the middle class, but even sections of the working class. Public loans bring in so little that they offer no attraction to the large capitalist, who can easily find a more profitable investment. They absorb the reserves of many associations and individuals and a fraction of savings. Savings depositors invest their money in those loans either directly or through the savings banks in which their money is deposited.

Judging by the number of individual subscriptions, the number of persons holding Government bonds in such countries as Germany, Great Britain, France, the United States, etc., must run to millions. It is very probable, however, that the great majority of these securities are in the hands of a smaller group. This is true also of the securities issued by municipalities, railways, mortgage banks, etc.

What happened to capital invested in Government bonds and to the stock itself during the depression? This is far from being one of the most painful chapters of modern history.

In the midst of the general distress, failures, moratoria and notorious bankruptcies, the service of the public debt continued unchanged in every country. Indeed, the Governments showed more respect for the holders of their bonds than for any other group of their citizens. The result was the redistribution of the annual income which was referred to in the first part of this study : the interest on Government bonds being fixed and guaranteed by the State occupied a privileged position as compared with other forms of income.[1]

Practically every State was obliged to have recourse to public credit during the depression : almost everywhere there was an increase in the amount of public indebtedness, and this became

[1] Cf. p. 33.

particularly marked as the depression advanced. Foreign debts [1] shared the fate of the currencies in which they were expressed; the debts of various countries to the United States or Great Britain, expressed in gold, declined as the dollar and the pound were devaluated (cf. Appendix 26 A and B).

From the point of view of the present study it is of no great importance whether the statistics of public indebtedness shown in Appendix 26 are complete or not or whether certain States contracted obligations during the latter part of the depression which are not shown in their official reports. What is of importance for the present purpose is to have information as to the claims of individuals against the State, for these claims imply the transfer of a steadily increasing fraction of the national income to the holders of securities. During the depression, when prices fell, those who held Government bonds were able to increase considerably the real value of their income and also of their capital.

But Governments could not allow the cost of the public debt to increase beyond certain limits; sooner or later they were forced to consider the possibility of conversion. By taking account of the position on the capital market they were generally able to arrange for voluntary conversion, the holders of bonds consenting to exchange them for new securities which constituted a satisfactory investment for their holders while involving a less burdensome obligation for the State. When there was no chance of a successful voluntary conversion, various forms of pressure were employed. Among all the extensive conversion operations of recent years, however, there are very few cases in which the existence of coercion was obvious.

It was Australia that began, in 1931, the series of conversion operations during the depression. After converting its internal loan, the Commonwealth was able, between October 1932 and the end of 1934, to redeem and convert its obligations on the London market to a total of £124 million.

In Great Britain an Act of Parliament was passed in October 1931 empowering the Government to convert part of the public debt. This operation was undertaken on 30 June of the following year. The holders of 5 per cent. War Bonds were invited to

[1] This refers only to commercial indebtedness; political indebtedness and, in particular, the debts arising out of the Great War have intentionally been left out of account in the present study.

exchange them for new bonds bringing in 3½ per cent., or, if they so desired, to claim the refund on their capital in cash. Of the £2,085 million representing the total loan, £1,921 million were converted and only £164 million refunded. The converted bonds met with great success, and the quotation for them rose from 97 per cent. on 1 December 1932 to 107¼ on 1 December 1934. This was the largest conversion in the history of the world and perhaps also the most successful one. It was followed by a series of conversion operations by the British Dominions (New Zealand, India and the Union of South Africa), by municipalities and by private companies. The effect of these operations was a fall in the bank rate and a considerable reduction in the fraction of the national income transferred to the holders of Government securities.

In France, the conversion operation undertaken under the Act of 17 December 1932 affected 5, 6 and 7 per cent. Government bonds of a total amount of 84,000 million francs, which were all converted into 4½ per cent. bonds. As in Great Britain, conversion was entirely voluntarily and the conditions offered to the holders of these securities were so advantageous that the amount refunded (4,600 million francs) was largely counterbalanced by new subscriptions (2,900 millions).

In 1935, budgetary difficulties and the steadily increasing deficit forced the Government to take steps to reduce the burden of the public debt. At the same time as salaries and pensions were reduced, the Legislative Decree of 17 July provided for a temporary deduction of 10 per cent. from the interest on Government securities.

Italy converted its internal debt at quite a late stage of the depression (by the Act of 8 February 1934). Its 5 per cent. bonds, amounting to 61,000 million lire, were converted into 3½ per cent. bonds. As this conversion had to be made within a period of five days, the operation cannot be considered as having been entirely voluntary. The quotation for the converted bonds fell from 97.3 at the date of the conversion to 86.4 on 1 December 1934.

In Germany, conversion was carried out in several stages. The first step was undertaken by the Legislative Decree promulgated by the Brüning Government in December 1931, which reduced the rate of interest on certain public and private loans. Three years later the Act of 24 January 1935 authorised municipal

and mortgage credit institutions to convert their bonds from 6 per cent. to 4½ per cent. The holders of these bonds were entitled to protest and demand that their capital be refunded, but this refund was made not in cash but in paper which was not negotiable. In point of fact, therefore, this meant compulsory conversion. A further conversion of part of the public debt was carried out in February 1935. The total amount converted in this way was 6,400 million RM. of mortgage bonds and 4,000 millions of the public debt.

The conversion policy of the United States opened in the autumn of 1933. All the operations were carried through with the consent of the holders of securities in accordance with the conditions under which the loans were issued. The first step was the conversion and partial redemption of the Fourth Liberty Loan, which was the most important War Loan of the United States, amounting to 6,200 million dollars in 1933. In order to avoid an undue strain on the capital market, the Government carried through this operation by stages and it was not completed until 1935.

The following general conclusions can be drawn from this brief survey of the conversion operations in the principal countries during the depression. The holders of fixed interest bearing securities undoubtedly profited from the increase in the value of money (the fall in prices) during the early part of the depression. At a later stage their nominal income was considerably reduced. Apart from the measures adopted in Germany and to some extent in Italy, it can be said that conversion was voluntary in every country.

The holders of Government bonds had therefore no reason to complain of the way in which they were treated by the State. In any case, the conversion of debts is one of the financial measures that every State is obliged to adopt in certain circumstances to reduce the burden of its current charges and relieve the situation on the national capital market. Before the world depression, France carried out important conversion operations in 1928 and 1929; Great Britain took similar steps in 1919, 1921 and 1927; the United States systematically converted their war debts (Victory Notes and Liberty Loans) from 1920 to 1929. It is true that conversion during the depression involved an unusually sudden fall in the interest rate (sometimes of 1.5 or 2 per cent. or

even more), but this feature of the operations was justified by the particularly far-reaching changes in general conditions on the capital market.

Notwithstanding these conversions, the possessors of Government bonds remained in a privileged position as compared with other capitalists; their capital was protected against depreciation (as compared with the national currency) and it continued to bring in an income, whereas the capital invested in private undertakings was exposed to all kinds of risks.

This, however, was not sufficient to inspire complete confidence in capital invested in Government securities. The development of hoarding to which reference was made in the previous section shows that during the depression a number of capitalists preferred to keep their money in cash rather than to lend to the State.

The poorer people hoarded in their stockings and those in a better situation used their private safes, while the capitalists who had succeeded in withdrawing larger sums from their businesses had other means of evading the treasury and the dangers of depreciation of the national currency; they transformed their wealth into gold or into whatever foreign currency appeared to them at the moment to be particularly safe. The money thus withdrawn from industry became fugitive capital.

Even when this flight of capital abroad was not fraudulent or contrary to the law of the country, it was not felt to be entirely safe. Economic difficulties increased on every hand; the rumours, sometimes unfounded, of devaluation or other measures planned by the State in which the foreign capital had found refuge spread terror in the hearts of the capitalists and led them to transfer their money to some other place of safety. This was the origin of the large amount of capital (in gold or foreign exchange) that kept wandering between New York, London or Paris, the Netherlands, Belgium, or Switzerland, giving an entirely false impression of the economic situation of the countries in which the capitalists had confidence, creating illusions, spreading panic, promoting the most undesirable forms of speculation and drawing other capital after it. Did this mean that the financiers had found a new method of speculation during the depression, or was this a new type of saving, a sort of particularly skilful form of hoarding? Or did it perhaps represent capital which, in other circumstances, would have been tied up in Government securities instead of wandering to every corner of the world?

These questions cannot be answered with certainty. There was probably money from a variety of sources in the currents of gold and foreign exchange that supplied the material for the reports of the international money market in recent years. In any case, this wandering capital did not bring any great profit to its possessors. During the early part of the depression, the profit it brought was exactly the same as that on hoarded money; the increase due to the rise in the value of the currency concerned. During the later stages of the depression there was in addition the possibility of making a profit on the differences in exchange rates. Speculators, however, could just as well use their bank deposits or credits for this purpose. It would seem that the "attacks" on certain currencies were carried out mainly by national capital which was fully informed as to the proposals of the Government and the intentions of Parliament rather than by international speculation. Very often, moreover, the Governments were sufficiently fortunate to be able to master these attacks as soon as they had achieved the political end they had in view.

It would, therefore, be a mistake to credit the gains or losses from speculation on the exchanges solely to the account of fugitive capital. In any case it is useless to penetrate into this realm of mystery; no one will ever know the amount of the gains or losses from speculation during the world depression or how these gains or losses are distributed.

C.—Entrepreneurs and Shareholders

The incomes of shareholders and entrepreneurs connot be distinguished from the increase or decrease in the capital of undertakings. From the point of view of the shareholder, the quotations for his shares (which presumably reflect changes in the value of the undertaking) are more important than the rate of dividend. The latter often interests him mainly from the point of view of the effect it may have on the quotations on the Stock Exchange. Similarly, the income of the entrepreneur (in so far as it can be distinguished from remuneration for the management of the undertaking and the interest on capital) consists in the increase in the value of the undertaking more than in sums that he withdraws from his business for personal consumption. Thus a large fraction of the

income of entrepreneurs and shareholders is not used for direct consumption. It is just this fraction of their income which contracted most violently during the depression. This can be seen by studying the changes in the reserves of joint-stock companies and other undertakings. The United States can be taken as a particularly instructive example.

Agriculture, mining, industrial, commercial, financial and other undertakings in the United States set aside 2,458 million dollars in 1929. In 1930 their reserves declined by 5,056 million, in 1931 by 7,849 and in 1932 by 8,419 millions (cf. Appendix 11). In three years, therefore, from 1930 to 1932, the reserves of these undertakings decreased by 21,300 million dollars. Their losses would amount to 29,000 million dollars if account were taken of the increase that would have been achieved had the normal course of evolution continued (an annual increase of 2,500 million dollars on the basis of the 1929 figure).

The losses of undertakings calculated in this way are much more extensive than the decrease in the dividends distributed, which were as follows in the United States (in millions of dollars).[1]

	1929	1930	1931	1932
Dividends distributed	5,900	5,800	4,300	2,800
Decrease as compared with 1929....	—	100	1,600	3,100

This rough estimate is open to criticism. Part of the decrease in the reserves of undertakings is no doubt due to the fall in prices, which led to a depreciation in certain items of the balance sheet. Other losses were but temporary. In general, estimates of this kind in the very middle of the depression are after all more or less arbitrary. The economists of the United States, although not insisting on the strict accuracy of their estimates, suggest that the variations in the reserves of undertakings were distributed as follows (cf. table 41).

The difference between individual undertakings and companies in table 41 is significant. The losses of individual undertakings were borne by the owners, but the losses of companies were not distributed over the shareholders. At the end of the year the individual entrepreneur knows approximately how much he has gained or lost; shareholders, on the other hand, know only what dividend has been agreed to by the directors and what the market quotation for their shares is.

[1] Cf. table 13, p. 113.

TABLE 41.—VARIATIONS IN THE RESERVES OF UNDERTAKINGS IN THE UNITED STATES

(in millions of dollars)

+ = increase — = decrease (losses)

Branches of industry	Individual undertakings				Companies			
	1929	1930	1931	1932	1929	1930	1931	1932
Agriculture ...	+1,177	100	651	-1,227	—	—	—	—
Mines.....	— 33	— 127	— 165	— 47	— 215	— 337	— 381	— 263
Electricity and gas	—	—	—	—	— 17	— 278	— 283	258
Manufacturing industries ...	— 21	— 164	— 206	219	1,218	-1,685	2,607	2,282
Building	68	— 164	— 176	— 314	+ 20	— 17	— 53	— 96
Transport	— 1	— 17	— 23	32	361	— 103	— 345	404
Communications	—	—	—	—	107	+ 44	10	57
Commerce.....	+ 103	— 338	— 851	997	+ 12	— 601	— 885	921
Finance, insurance, etc ...	— 186	— 208	— 613	705	— 235	— 409	— 781	865
Services.....	3	— 35	— 105	— 167	— 29	— 108	— 104	— 294
Miscellaneous .	—	—	—	—	— 302	417	— 383	383
Total...	+ 974	—1,153	—2,790	—3,708	+ 920	3,911	—5,812	—5,823

Source. *National Income*, 1929-1932, pp. 25-157. The figures in this table differ from those in Appendix 11.

From 1930 to 1932 a loss of 7,651 million dollars was suffered by individual entrepreneurs, of which 2,000 millions can be attributed to farmers, 2,200 millions to traders, 1,500 millions to financiers, etc. But there is nothing to show who bore the losses of joint-stock companies, which, according to table 41, amounted to 15,546 million dollars.

These losses certainly affect all the shareholders in an appreciable if indirect way; they would realise it when the quotations for their shares fell (cf. Appendix 7 B). But shares are among the forms of property that are constantly changing their ownership, so that it is impossible to say who in the long run bears the brunt of the vicissitudes of speculation at the end of a depression. In many cases the quotations for shares during the depression represented not only the real depreciation in the capital invested in the undertakings but also the exaggerated pessimism of the public. The value of industrial shares was obviously underestimated in 1932, as can be seen from their rapid revival during the later phase of the depression, even before the undertakings were again working at a profit.

In any case the losses of industrial undertakings, which were reflected in a decrease in their reserves or the fall of their shares on the stock market, cannot be taken as identical with the losses of the actual owners of the shares or of the managers of joint-stock companies. Nevertheless the course of development of large modern undertakings during recent years is worthy of attention, for, quite apart from the question of who will ultimately bear the losses incurred by a joint-stock company, the decline in the degree of profit they bring practically always means an immediate restriction of activity and a reduction of staff.

The financial situation of the great majority of joint-stock companies during the period under consideration was deplorable. This can be seen from a study of the profits and losses of joint-stock companies in Germany. The most important of these companies (including those with a capital of several millions) showed the following financial results :

Years from 1 July to 30 June	Net profit or loss	Dividends paid to shareholders
	as percentage of the capital of the companies	
1927-1928	+ 6.65	6.71
1928-1929	+ 6.01	6.42
1929-1930	+ 4.81	6.45
1930-1931	+ 2.19	4.75
1931-1932	— 8.71	2.56

Source : Wirtschaft und Statistik, Berlin, 1933, p. 169.

Even more impressive statistics exist for German joint-stock companies as a whole. Every year the Federal Statistical Office publishes the profits and losses of companies during the year. The weakness of these statistics is that the companies to which they refer are not the same from one year to another. In order to overcome this difficulty, the data for each year are compared with the balance sheets of the same companies for the preceding year. The following were the financial results achieved by German joint-stock companies from 1927-1928 to 1933-1934 (cf. table 42 and Diagram LII).

The losses of joint-stock companies were not equally great in every sector of the economic system. In Germany, for example, water, gas and electricity undertakings survived the depression without any appreciable losses; insurance companies also came through the depression with astonishing success; banks on the other hand suffered enormous losses in 1931 and 1932. Among manufacturing industries, the chemical industries and the

TABLE 42.—PROFITS AND LOSSES OF JOINT-STOCK COMPANIES IN GERMANY

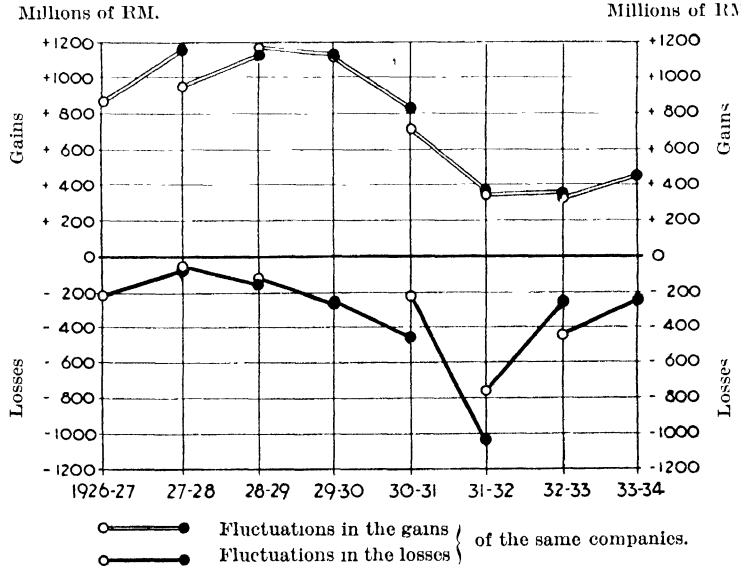
(in millions of RM.)

Date	Profits and losses of companies which published their balance sheets from 1 July to 30 June		Comparison · Profits and losses of the same companies in the preceding year	
	Profits	Losses	Profits	Losses
1927-1928	1,171.4	93.5	890.3	200.0
1928-1929	1,160.1	141.3	971.5	90.2
1929-1930	1,167.7	281.1	1,198.1	135.7
1930-1931	815.2	457.2	1,158.9	260.6
1931-1932	372.1	1,010.3	707.0	208.1
1932-1933	376.2	257.5	370.9	739.3
1933-1934	425.3	228.0	332.5	411.4

Sources · *Konjunkturstatistisches Handbuch*, Berlin, 1933, p. 168, and *Wirtschaft und Statistik*, 1933, 1934 and 1935.

production of foodstuffs had only slight losses, whereas the metal and wood industries lost large amounts (cf. Appendix 28). Similar divergencies exist in the United States, Great Britain and other countries.

DIAGRAM LII.—ANNUAL FLUCTUATIONS IN THE GAINS AND LOSSES OF JOINT-STOCK COMPANIES IN GERMANY



During the later part of the depression certain branches of industries (e.g. metal works, munitions factories, etc.) were able to recover their losses, whereas several other branches of production were suffering from business stagnation.

It should also be noted that the cases of ruin in industrial and commercial undertakings, by which is meant the failure of the undertakings, were much less numerous in the later years of the depression than might have been expected in view of the situation (cf. Appendix 29).

In Germany, for example, the number of failures increased very rapidly from 1927 to 1929; the movement continued at approximately the same rate in 1930 and 1931, but after that the number fell to a very low figure. In the United States the average number of failures each month was as follows :

During the five years of prosperity from 1925 to 1929... 1,898
During the five years of the depression 1930 to 1934... 1,982

The corresponding figures for the Netherlands are 286 and 339, for Sweden 232 and 236 and for Norway 85 and 57.

The comparatively small number of failures during the recent depression may be attributed, in part at least, to the measures taken by Governments to help undertakings that were in temporary difficulties. However these measures would not have proved successful if it had not been in the interests of the banks to save their customers from bankruptcy.

The liabilities of firms that failed seem very small considering the seriousness of the depression. The statistics of failures in the United States may be taken as an example (cf. table 43) :

The annual average amount of the net liabilities was therefore :

$252,000,000 during the 3 years of prosperity;
$294,000,000 during the 4 years of the depression.

This meant that during the depression the liabilities of firms in liquidation were only $42,000,000 more on the average for the year than the normal figure in times of prosperity.

The process of selection among undertakings as a result of the depression would appear to have been very imperfectly carried out. Apart from a few notorious bankruptcies, which brought to light numerous abuses and fraudulent practices, the depression

TABLE 43.—FAILURES IN THE UNITED STATES

Number of failures	1927	1928	1929	1930	1931	1932	1933	1934
Industry	5,682	5,924	6,007	6,278	6,412	7,279	4,615	3,040
Commerce	16,082	16,477	15,417	18,393	20,170	22,624	14,105	7,962
Agents, brokers, etc.	1,382	1,441	1,485	1,684	1,703	1,919	1,587	1,183
Total...	23,146	23,842	22,909	26,355	28,285	31,822	20,307	12,185
Liabilities :	In millions of dollars							
Industry	212	182	187	239	283	350	180	99
Commerce	228	225	225	273	355	431	233	115
Agents, brokers, etc.	80	82	72	157	97	147	90	51
Total...	520	490	483	668	736	928	503	264
Assets	257	255	226	443	435	509	271	154
Excess of liabilities.	263	235	257	225	301	419	232	110

Source : Statistical Abstract of the United States, 1935, pp. 288-290.

did not put an end to the existence of undertakings that ought to have disappeared and leave the field open to other firms more worthy of success. It was not always the best undertakings that survived and the worst ones that were eliminated. In any case, the number of undertakings that disappeared was not very large. In Germany, for example, the number of firms removed from the commercial register during the depression was lower than during the period 1927-1929. The decrease in the number of firms registered in Germany since 1929 is due to the fact that fewer new undertakings have been founded (cf. table 44).

TABLE 44.—FOUNDATION AND DISSOLUTION OF UNDERTAKINGS IN GERMANY

Years	Joint-stock companies		Other companies		Individual undertakings, etc.	
	Founded	Dissolved	Founded	Dissolved	Founded	Dissolved
1927	360	1,545	4,582	11,632	13,840	23,328
1928	356	932	4,186	8,384	12,691	22,227
1929	321	804	4,289	6,779	10,406	19,263
1930	268	678	4,272	4,728	9,529	19,559
1931	188	736	4,419	4,671	7,976	17,428
1932	80	904	4,045	4,777	7,390	16,260
1933	95	600	3,283	4,367	9,355	14,188

Source : Statistisches Jahrbuch für das Deutsche Reich, 1934, p. 368.

Generally speaking, the characteristic feature of the depression was not the disappearance of a fraction of the undertakings, but a restriction or temporary cessation of their activities. Production was stopped, branches were closed down, staff was dismissed, but the firm continued to exist, even if it possessed nothing but debts or claims of more or less doubtful value. Moreover, many firms that seemed to have been completely ruined in 1932 began their activities afresh and made good their losses two or three years later.

The financial consequences of the depression from the point of view of entrepreneurs and shareholders cannot therefore be definitely stated at present. They can be assessed only with the help of more or less arbitrary conjectures. The moral effect of the depression is less vague in this case, for it shook the confidence of shareholders in the heads of undertakings. The banker, the stockbroker, the large-scale industrialist or the general manager of a joint-stock company, who are all held responsible by public opinion for the bad management of their businesses, had, by the end of the depression, lost much of the prestige they enjoyed during the period of brilliant prosperity. The failure of certain banks and the manner in which they were found to have squandered the savings entrusted to them, helped to discredit not only high finance, but also all those responsible for the management of economic affairs.

D.—Summary

It is often asserted in statistical and economic works dealing with the depression that the higher income groups suffered more severely from the depression than the lower income groups. This view is supported by the statistics of taxable income, which are based mainly on the returns made by taxpayers.

The present writer prefers to ignore this source of information, in which he has no confidence. Other sources of information show that the lowest incomes, more especially the wages of agricultural and industrial workers and the incomes of farmers, craftsmen and small traders, suffered severely during the depression, whereas some incomes in the higher grades resisted the depression, comparatively speaking, much better. It should be added that all the larger incomes were not affected in the same way by the depression.

The course of development of savings and of hoarding shows that in spite of the widespread distress, there were people who had abundant means at their disposal. The fluctuations in Government securities show that other social groups kept their wealth intact and suffered only a slight loss of income. A study of the income of the purely capitalist classes, whether shareholders or entrepreneurs, leads to the conclusion that some of them lost all they possessed during the depression, while others survived very successfully.

The fraction of the income of capitalists which declined was mainly the impersonal fraction used for investment. The direct consumption of capitalists was, of course, also influenced by the depression; this can be seen from the decline in the volume of production in luxury industries. At the same time certain forms of luxury consumption remained intact, or practically so (sumptuous flats, houses and villas occupied by their owners, motor-cars, personal service, etc.). In short, it is quite erroneous to consider that one of the social consequences of the depression was to bring incomes and wealth nearer a uniform level.

The growth of anti-capitalist feeling during the later period of the depression, even in the more conservative sections of society,[1] cannot be explained solely by the particularly heavy losses which the depression involved for capitalists.

There can be no doubt that the sense of injustice in the distribution of wealth became more firmly rooted in sections of society that had not hitherto objected to the class system. The capitalists were held responsible not merely for business stagnation and the continuation of a depression that seemed to be insoluble, but also—and this accusation was even more bitter—for the fact that the losses resulting from the depression were not borne by those who were held to be responsible for them.

---

[1] Cf., *inter alia*, Gaëtan Pirou : *La crise du capitalisme.* Recueil Sirey, Paris, 1934.

CONCLUSIONS

The preceding study of the outward effects of the economic depression, the variations in national income and its distribution and the changes in the situation of various social classes in different countries during the depression suggested certain conclusions concerning the interdependence of economic and social phenomena which were formulated in the first part of this volume.

But is it possible to draw from the investigations carried out in the preceding pages and the data there compiled any conclusions of a more general nature than those considerations with which the volume began?

The answer is in the negative if by the question is meant final conclusions embodying new economic laws. The answer is in the affirmative if one is content to accept provisional conclusions summing up the present state of our observations but permitting and even requiring completion and modifications in the light of subsequent empirical study.

Very often in the course of the preceding investigations the author has been obliged to use such vague terms as " it would seem ", " it appears ", etc. Frequently he has pointed out gaps in the information available concerning certain phenomena, so that he could merely ask questions without venturing to answer them. If he had been more categorical in certain cases he would have implied a certainty quite unjustified by the present state of economic science. It must be left to the future to complete our knowledge of those points on which we are still ignorant.

Subject to this reservation, an attempt will now be made to formulate the principal conclusions from the observations contained in the preceding pages.

I

The standard of living of various countries and various social groups during the depression, and more especially their *real income*, is determined by two phenomena :

(a) the contraction of the total national income;
(b) its redistribution.

The contraction of the national income is determined, first and foremost, by the decline in production (of commodities and services), but there is no necessary correspondence between the loss of output and the loss of income in any one country, for the process of international exchange during the depression can give rise to losses and profits which are sometimes as great as those produced by fluctuations in national production. It is only for the world economic system as a whole that the loss of real income can be said to coincide with the loss of output.

II

The decrease in the output of commodities and services during the depression took place in certain limited sections of the economic system. This can easily be seen in the case of the production of commodities; it is not so clear in the case of *services* (for example, commercial services.)

The decline in the production of commodities was restricted at the beginning of the depression to industry, in which it was most marked in the industries for *producers'* goods. Later and to a lesser extent the depression spread to the industries for *consumers'* goods. Agriculture did not follow the complete course of this movement.

The shrinkage in the production of commodities within the industrial sector was accompanied by a proportionate decline in employment and an increase in unemployment. The loss of real services in commerce, on the other hand, was obscured by the fact that many persons who could no longer find employment in production migrated to commercial occupations during the depression.

As was shown, the total loss of the world economic system between 1930 and 1934 as a result of the depression (as far as production, commerce and transport are concerned) amounted in round figures to between 149,000 and 176,000 million " 1928 dollars ", or from 100,000 to 120,000 million " 1913 dollars "— a fateful figure, equal to the total cost of the Great War.

The *immediate* cause of all the calamities of the depression was the shrinkage in industrial production : the poverty of the unemployed, the difficulties of the farmers, the decline in the volume of international exchanges, the disorganisation of public finance, the various political and social disturbances and all the other outward signs of the great depression may be attributed to the fact that the wheels of the gigantic machinery of capitalist industry were turning more slowly or had ceased to turn altogether.

III

Starting in industry—and especially in some branches of industry—the acute depression spread to every branch of the world economic system during the period from the end of 1929 to the summer of 1932. It was prices which, falling lower and lower, acted as the carriers of this contagion.

If the loss of output were to be restricted to the economic sector in which it began, all quantitative exchange ratios (prices, rent, wage rates, civil servants' salaries, interest, rates for debt redemption, taxes, etc.) would have had to be altered simultaneously from top to bottom in accordance with a definite plan. The rigidity of prices would not be sufficient to prevent the transfer of the losses of those branches in which production was at a standstill to other branches in which the volume and rhythm of economic activity remained unchanged. The decline in the demand of industry for raw materials on the one hand and in its purchasing power on the other would restrict the possibilities of marketing agricultural produce, lead to a decrease in the income of farmers and prevent the sale of those manufactured articles of which they were the consumers—and so the whole system would go sliding down the slippery slope of the depression.

Theoretically it is possible to conceive a set of measures which could have restricted the loss of economic stability to the sector in which it occurred, namely, industry. In practice such a system

is impossible. What actually takes place is a redistribution of the losses, which may be carried out in accordance with a preconceived plan or without any plan.

During the extensive depression considered in these pages, the redistribution of the losses it caused was carried through without any plan, the method varying in each country; it was determined by the simultaneous action of two groups of factors : *the divergence in prices* and *the difference in the elasticity of various income groups.*

IV

The principle governing price variations during the depression was this : *the violence of the fall in prices was in inverse ratio to the decline in production.*

There were, it is true, exceptions to this rule. In industrial countries with highly developed agriculture, for example, it was possible by tariff measures to maintain the level of prices of certain commodities and at the same time prevent a decline in their production, but this accelerated the fall in prices in agricultural countries and reduced their ability to absorb the output of industrial countries. In short, if there is one economic law more than another that was confirmed up to the hilt by the experience of the recent depression, it is the law of prices.

The only way in which any branch of production was able during the depression to avoid an excessive fall in prices was by restricting its activities and adapting them to new market conditions. Branches of production that did not adapt themselves to the fall in demand found that the prices of their products collapsed, and were obliged to sell at less than the cost price.

This, however, was not the divergence in prices which could ensure the best possible distribution of capital and labour.

Industries that had developed their producing capacity unduly when business was flourishing were able to reduce their activities by dismissing those workers who had become superfluous and thus avoid a slump in prices. The greatest fall in prices, on the other hand, took place in agriculture, in which the expansion of production during the period of prosperity had been little if at all in excess of the level of requirements.

V

Thanks to the divergence in prices, a fraction of the loss of output of the industrial countries could be passed on to the agricultural countries. Hence the striking discrepancy between the decline in output and that in national income which is characteristic of the industrial countries such as Great Britain, Germany and France.

According to the statistics of these three countries the fraction of the loss of national production that was passed on to foreign countries was as follows :

for Great Britain (1930-1933) over 50 per cent.
for Germany (1930-1933) over 15 per cent.
for France (1930-1932) over 36 per cent.

These three industrial powers of Europe were able, as a result of the discrepancy between industrial and agricultural prices, to transfer to the agricultural branch of the world economic system losses amounting in all to about 7,500 or 8,000 million " 1929 dollars " from 1930 to 1933 and probably 10,000 millions for the five years from 1930 to 1934.

The example of Bulgaria shows the other side of the picture. During the depression the agricultural countries suffered a loss of *national income* for which the decline in their *production* offered no justification. The decrease in the real national income of Bulgaria in 1932 corresponded exactly to its losses in international exchange.

VI

The transfer of losses by means of the divergence in prices had very serious consequences for the two groups of countries. The industrial countries were able to keep up a comparatively high standard of living, but they suffered from a steady increase in unemployment. The agricultural countries maintained their usual volume of output and even increased the volume of their exports, but their population was reduced to extreme poverty. The interdependence of these phenomena is obvious and suggests certain questions which the author would merely point out without venturing to answer them.

A certain divergence between industrial prices and agricultural prices would seem to be natural at a period when industrial production is declining and agricultural production is not. But the discrepancy between prices in the two branches of the economic system during the period from 1929-1932 was surely excessive. Did not the tariff policy adopted to protect agricultural prices on the home market to the detriment of the world market eventually close the foreign markets of the industrial countries? Would it not have proved easier to overcome the depression if the distress of the population of the agricultural countries and the unemployment in the industrial countries had not been allowed to reach such dimensions? In other words, should not the problem of the stabilisation of agricultural prices have been tackled at the very outset of the depression as a problem of international economic policy?

VII

The questions just asked do not apply exclusively to the relations between countries of different economic structure; they also concern the relations between various sections of the same country. In both cases the mechanism of the horizontal redistribution of the loss of national output is essentially the same.

This can be very clearly seen by studying the development of the depression in countries in which the national income was not increased or appreciably reduced by the divergence between industrial prices and agricultural prices. These may be industrial countries with very extensive agriculture (such as the United States) or agricultural countries with highly developed industries (such as Japan). These countries could not protect their agriculture by tariff measures and therefore experienced to the full the collapse of agricultural prices. As a result of the divergence in prices the agricultural branch of the economic system in those countries, although maintaining its normal volume of output, was more severely affected by the depression than the industrial sector. In the later phase of the depression the restriction in agricultural production and the adjustment of agricultural prices to bring them into harmony with the prices of manufactured articles constituted an important part of the economic policy of the United States.

VIII

The shrinkage in national income was reflected in two different fields of consumption; *direct consumption* (individual or collective) and *investments*. So long as the depression means simply a temporary interruption in investment operations the economic system can easily regain its equilibrium. The situation becomes much more complex as soon as the depression affects direct consumption.

During the recent depression there was at first some idea that in a certain number of industrial countries direct consumption remained unaffected. This belief gave rise to illusions as to the possibility of an automatic solution of the depression. In reality direct consumption was seriously affected, although to a less marked degree in large industrial countries than in the agricultural countries which were their markets.

The succeeding phase of the depression showed that the two branches of consumption cannot be separated into watertight compartments : the slackening of investment means an increase in unemployment, which in turn produces a shrinkage in direct consumption.

IX

The study of the situation of various social groups during the depression, which formed the second part of this volume, led to a consideration of the *vertical redistribution* of the loss of national income.

This brought us face to face with the most acute problems of economic and social policy in recent years. The depression brought about far-reaching changes not only in the standard of living of various branches of society but also in their *fundamental conditions of existence*. The depression did not simply mean that the share of the national income obtained by one social group decreased by, say, 10 per cent. while that of another was reduced by only 5 per cent. What was much more important was the way in which the decrease in the income of each social group took place and the way in which the loss was distributed over the various individuals composing it. From this point of view there was a tremendous difference between the losses of the working class, the middle classes and the capitalists.

The *capitalists* suffered from varying degrees of material loss which was largely covered by the reserves accumulated during periods of prosperity. What was perhaps more serious was their loss of prestige and of the confidence of the public.

The *middle classes* suffered very heavy losses, which were all the harder to bear because they felt that they were in no way responsible for the depression. These difficult times, however, helped to strengthen the unity and increase the activity of the middle classes—craftsmen, small traders and farmers.

The *working class* was affected by the depression not only on the material side but still more on the political side. The depression forced a breach in the unity of this class by creating opposition between those who were unemployed and those who kept their jobs. It condemned a large number of workers not merely to physical privation but also to the humiliation and social degeneration of interminable unemployment.

X

In addition to this difference in the way in which the depression affected various social classes, mention should be made from another point of view of the community of interests of all social groups during the depression. They were, indeed, all victims of the same economic disturbances.

The working class suffered from unemployment, which is a shrinkage of industrial production.

For the agricultural class the depression meant a fall in the price of their produce, which in turn was simply a consequence of the decline in industrial production.

For craftsmen and small traders the depression consisted in a shrinkage of their market, which again was the result of the stagnation of industrial production.

For statesmen the most serious effect of the depression was the budgetary shortage, which was also due solely to the disorganisation of industrial production and the consequent fall in prices.

Finally, the collapse of the market for stocks and shares, the bankruptcies, the international exchange difficulties, the monetary disturbances and all the other outward signs of economic disequilibrium can, as was pointed out, be traced to the same cause.

Consequently the task of restoring the activity of factories and workshops should have been the one dominant social, political and economic problem of this period. Unfortunately the nations did not recognise in time the importance of this task.

XI

In the course of this study the close interdependence of the various forms in which the depression made itself felt has become abundantly clear. The obvious conclusion is that it is impossible to deal effectively with a depression such as that through which the world has just passed or to prevent a fresh depression by attacking any of the outward consequences of the depression in isolation.

A comprehensive view of the whole problem is an indispensable condition for success in a task as complex as that of overcoming a depression in the capitalist system as at present constituted. It was the lack of such a comprehensive view in recent years that made so many isolated efforts and legislative measures abortive.

APPENDICES

APPENDIX 1

SURVEY OF NATIONAL INCOME IN VARIOUS COUNTRIES BEFORE THE DEPRESSION

A.—Development of National Income per Head of the Population in Reichsmarks at Pre-War Purchasing Power

Country	1913-1914		1924	1925	1926	1927	1928
	Former territory	Present territory					
United States	1,553		2,007	2,004	2,167	2,229	2,228
Canada	799		—	1,647	1,766	1,815	—
Australia	1,269		1,273	1,490	1,431	—	—
Great Britain	1,007 [1]	1,045 [2]	1,158	1,205	1,164	1,181	1,123
Netherlands	723–789		—	—	—	—	1,119
Switzerland	829		855	831	—	—	1,054
Norway	497		845	801	949	954	957
Belgium	746–799	740–792	548	603	—	—	—
Sweden	504–519		—	—	—	—	793
Germany	717–729	714	501	585	632	713	771
Denmark	653–706	647–701	—	—	—	—	765
France	746	767	630	577	—	579	716
Austria	—	556	—	432	—	—	475
Czechoslovakia	—	444	—	—	377	454	—
Spain	427		454	—	—	—	—
Italy	435	440	—	364	—	—	425
Finland	310		309	—	315	—	—
Hungary	—	290	237	217	—	302	307
Estonia	—	304	—	—	—	—	290
Latvia	—	274	—	246	279	—	285
Rumania	264	247	—	—	—	—	282
Poland	—	320	—	—	224	—	—
Lithuania	—	235	—	—	—	—	218
Bulgaria	291–333	296–333	—	—	182	—	—

[1] Including Ireland.
[2] Not including the Irish Free State.

Source : Dresdner Bank : *Les forces économiques du monde*, Berlin, 1930. All the figures in the table are taken from that publication, but they have been rearranged.

B.—National Output, Income and Consumption

In millions of Reichsmarks

Country	National output (commodities and services)			Excess of income from abroad (+) or payments abroad (—)		National income in narrower sense	Balance of movements of capital	National consumption
	Total	Fraction consumed						
		At home	Abroad	Commercial payments	Political payments			
United States, 1928.....	370,425	343,891	26,534	+ 2,196	+ 994	373,615	— 6,074	367,541
Canada, 1927 ..	24,000	17,132	6,868	— 898	—	23,102	— 843	22,259
Australia, 1926..	12,154	9,188	3,066	— 694	— 113	11,347	+ 830	12,177
Great Britain, 1928.....	64,188	48,468	17,720	+ 7,150	+ 167	71,505	— 2,945	68,560
Netherlands, 1927.....	11,214	7,367	3,847	+ 786	—	12,000	— 315	11,685
Switzerland, 1927.....	5,569	3,398	2,171	+ 344	—	5,913	— 241	5,672
Norway, 1928...	3,543	2,190	1,353	—	—	3,543	+ 147	3,690
Belgium, 1927..	6,810	3,367	3,443	+ 123	+ 60	6,993	— 206	6,787
Sweden, 1928 ...	6,722	4,744	1,978	+ 28	—	6,750	— 37	6,713
Germany, 1928..	68,500	54,911	13,589	— 735	— 1,938	65,827	+ 4,378	70,205
Denmark, 1928..	4,000	1,978	2,022	— 129	—	3,871	+ 78	3,949
France, 1928....	38,223	28,914	9,309	+ 576	+ 673	39,472	— 1,288	38,184
Austria, 1928 ...	3,958	2,542	1,416	—	—	3,958	+ 466	4,424
Czechoslovakia, 1927.....	9,078	6,366	2,712	— 90	— 13	8,975	— 170	8,805
Italy, 1927	18,777	14,797	3,980	— 113	— 3	18,661	+ 568	19,239
Finland, 1927...	1,586	849	737	— 34	— 1	1,551	+ 14	1,565
Hungary, 1927..	3,671	3,049	622	— 86	— 2	3,583	+ 369	3,952
Estonia, 1928...	450	287	163	— 7	— 2	441	+ 8	449
Latvia, 1926....	738	544	194	— 2	— 1	735	+ 27	762
Rumania, 1927..	6,990	5,988	1,002	— 346	+ 10	6,654	+ 216	6,870
Poland, 1927 ...	9,401	8,050	1,351	— 107	— 27	9,267	+ 493	9,760
Lithuania, 1926.	700	587	113	— 1	— 1	698	+ 3	701
Bulgaria, 1926..	1,405	1,228	177	— 36	—	1,369	+ 38	1,407
Japan, 1925.....	23,044	18,283	4,761	— 18	+ 3	23,029	+ 298	23,327

Source : Dresdner Bank : *Les forces économiques du monde*, Berlin, 1930. The figures in the table are taken from this publication, but rearranged in the light of the considerations concerning scientific method explained in the text. For this reason the totals given for national income and national consumption are different from those given by the Bank.

APPENDIX 2

CLASSIFICATION OF COUNTRIES ACCORDING TO DEGREE OF INDUSTRIALISATION

A.—Absolute Number of Members of the Occupied Population engaged in Various Branches of the National Economic System *(in thousands)*

Country	Total	Including persons engaged in			
		agriculture, forestry, fishing, etc.[1]	mines and industry	commerce and transport	other occupations
I. *Industrial countries with little agriculture :*					
Great Britain, 1921.....	19,880.7	1,904.3	9,141.8	4,008.4	4,826.2
Belgium, 1920.....	3,317.6	726.0	1,491.3	588.2	512.1
II. *Industrial countries with extensive agriculture :*					
Germany, 1933.....	29,994.1	7,041.0	13,050.9	5,931.3	3,970.9
Switzerland, 1930.....	2,072.5	543.0	874.6	369.1	285.8
Netherlands, 1930.....	3,348.7	818.3	1,235.7	743.9	550.8
Austria, 1920.....	3,056.4	956.4	1,025.9	375.2	698.9
France, 1931.....	20,673.3	6,765.7	7,278.4	3,764.7	2,864.5
Czechoslovakia, 1921...	6,086.0	2,497.4	2,212.1	604.4	772.1
United States, 1930....	52,826.0	14,718.3	15,094.9	9,981.4	13,031.0
Canada, 1931.....	4,498.0	1,794.2	1,175.7	689.2	838.9
Australia, 1921.....	2,271.6	782.7	790.3	262.7	435.9
III. *Agricultural countries with extensive industry :*					
Sweden, 1920.....	2,754.8	1,211.6	808.3	371.3	363.6
Norway, 1930.....	1,312.7	557.6	309.8	254.2	191.0
Denmark, 1921.....	1,495.2	608.0	367.6	227.0	292.6
Italy, 1931.....	19,176.1	9,817.1	5,309.7	2,246.6	1,802.7
Japan, 1930.....	26,947.1	12,415.8	5,717.5	5,891.2	2,922.6
IV. *Agricultural countries with little industry :*					
Spain, 1920.....	9,881.2	6,324.8	1,695.5	629.6	1,231.3
Portugal, 1930.....	3,495.0	1,682.7	685.9	331.3	795.1
Finland, 1930.....	1,591.3	951.3	251.7	128.8	259.5
Poland, 1921.....	10,975.8	7,722.5	1,266.3	762.7	1,224.3
Hungary, 1920.....	3,768.7	2,241.6	719.8	301.3	506.0
Bulgaria, 1926.....	2,338.3	1,759.2	278.5	124.3	176.3
Yugoslavia, 1921.....	5,343.7	4,284.3	469.9	323.0	266.5
Mexico, 1921.....	7,234.3	5,189.0	660.6	345.5	1,039.2
British India, 1931.....	156,715	107,712	15,698	10,482	22,823

[1] In order to secure the comparability of the statistics for agriculture in the different countries and to eliminate the inexactitudes resulting from differences in the methods of compilation, the number of women engaged in agriculture (including forestry, fishing, etc.) has been assessed at 50 per cent. of the number of men shown by the census as being engaged in agricultural occupations. This method increases the total working population in countries in which the statistics do not consider peasants' wives as part of the occupied population (e.g. United States, Italy and Spain). On the other hand it reduces the total occupied population in countries in which farmers' wives are shown as engaged in agricultural occupations (Germany, Poland, Bulgaria or the U.S.S.R.). The coefficient adopted corresponds more or less with the official statistics of Austria, Czechoslovakia, Hungary, etc.

Sources : The statistics on which this table is based are taken from the *Statistical Year-Book of the League of Nations*, 1933-34, Geneva, 1934, pp. 39-43; for Germany : *Statistisches Jahrbuch fur das Deutsche Reich*, 1934, p. 18; for France : *Bulletin de la statistique générale de la France*, 1935, April-June, p. 393.

B.—Percentage of the Occupied Population in Various Branches of the Economic System and Proportion of Foodstuffs exchanged with Foreign Countries

Country	Percentage of the occupied population by occupations [1]				Percentage of foodstuffs [2] (by value) in	
	Agriculture, forestry, etc.	Mines and industry	Commerce and transport	Other occupations	Imports	Exports
					Average for 1927-29	
I. *Industrial countries with little agriculture :*						
Great Britain, 1921.	9.6	45.9	20.2	24.3	42.8	6.1
Belgium, 1920.....	21.9	45.0	17.7	15.4	22.3	8.5
II. *Industrial countries with extensive agriculture :*						
Germany, 1933.....	23.5	43.5	19.8	13.2	29.5	4.9
Switzerland, 1930 ..	26.2	42.2	17.8	13.8	27.1	10.5
Netherlands, 1930..	24.4	36.9	22.2	16.4	23.7	45.8
Austria, 1920.....	31.3	33.6	12.3	22.9	31.2	3.1
France, 1931.....	32.5	35.2	18.2	13.9	22.7	11.9
Czechoslovakia, 1921	41.0	36.3	9.9	12.7	22.1	13.4
United States, 1930.	27.9	28.6	18.9	24.7	22.4	14.6
Canada, 1931	39.9	26.2	15.3	18.7	—	—
Australia, 1921.....	34.5	34.8	11.6	19.2	—	—
III. *Agricultural countries with extensive industry :*						
Sweden, 1920	44.0	29.3	13.5	13.2	23.5	9.7
Norway, 1930	42.5	23.6	19.4	14.5	25.9	28.7
Denmark, 1921.....	40.7	24.6	15.2	19.6	22.4	81.0
Italy, 1931	51.2	27.7	11.7	9.4	26.7	24.7
Japan, 1930	46.1	21.2	21.9	10.9	10.8 [3]	8.2 [3]
IV. *Agricultural countries with little industry :*						
Spain, 1920.....	64.0	17.2	6.4	12.5	19.7	56.9
Portugal, 1930	48.1	19.6	9.5	22.7	31.7	61.4
Finland, 1930.....	59.8	15.8	8.1	16.3	—	—
Poland, 1921	70.4	11.6	6.9	11.2	16.7	30.6
Hungary, 1920.....	59.5	19.2	8.0	13.4	7.3	64.9
Bulgaria, 1926	75.2	11.9	5.3	7.5	5.7	37.2
Yugoslavia, 1921...	80.2	8.8	6.0	5.0	12.1 [3]	45.4 [3]
Mexico, 1921.....	71.7	9.1	4.8	14.4	14.6	13.1
British India, 1931..	68.7	10.0	6.7	14.6	—	—

[1] For the absolute figures on which the percentages are based cf. note to table 2 A.
[2] Including drinks and live animals.
[3] Not including drinks.

Source : For the last two columns : *Statistical Year-Book of the League of Nations*, 1931-32, pp. 202-204.

APPENDIX 3

FLUCTUATIONS IN INDUSTRIAL PRODUCTION

A.—Industrial Production of Various Countries

a = Annual index; *m* = Monthly index; *q* = Quarterly index

Basis : 1929 = 100

Country	1927	1928	1929	1930	1931	1932	1933	1934
I. *Industrial countries :*								
Great Britain *(q)* [1] ..	95	94	100	92	84	83	88	99
Belgium *(a)*	93	98	100	88	82	69	72	70
Germany *(a)*	97	99	100	88	72	60	69	—
Netherlands *(m)* ...	86	97	100	91	79	62	69	70
Austria *(m)*	89	97	100	85	74	64	65	72
France *(m)*	79	91	100	100	89	69	77	71
Czechoslovakia *(m)* .	89	96	100	89	81	63	60	66
United States *(m)*...	89	93	100	81	68	54	64	66
Canada *(m)*	83	92	100	85	71	58	60	73
II. *Agricultural countries :*								
Sweden *(a)*	84	89	100	90	95	90	93	—
Norway *(a)*	81	89	100	101	78	92	94	100
Denmark *(a)*	85	92	100	109	100	91	105	112
Italy *(m)*	—	91	100	91	78	67	74	81
Japan *(m)*	83	90	100	95	92	98	113	129
Finland *(m)*.....	95	105	100	91	80	83	96	110
Poland *(m)*	89	101	100	83	70	54	56	63
Rumania *(m)*	91	99	100	97	102	89	103	124
Hungary *(q)*	98	99	100	94	87	77	84	97
Greece *(a)*	93	98	100	103	107	101	110	125
Chile *(m)*	74	81	100	101	78	87	96	105
New Zealand *(a)* ...	96	93	100	107	105	114	—	—

[1] Board of Trade index.

Sources : League of Nations. *World Production and Prices*, 1925-1933, Geneva, 1934, p. 129; *Monthly Bulletin of Statistics*, 1935, No. 8. In the first of these publications all the index figures are based on the average for 1925-1929, in view of the purpose of this study it was felt necessary to take another basis (1929 = 100).

B.—Production of Investment Goods and Consumers' Goods

Basis : Average for 1925-1929 = 100

Country	Investment goods					Consumers' goods				
	1930	1931	1932	1933	1934	1930	1931	1932	1933	1934
United States.....	80	52	30	45	50	90	90	81	90	88
Germany.....	91	60	40	51	85	101	94	85	92	103
Great Britain	96	78	75	84	—	90	88	90	94	—
France.....	118	102	72	81	—	100	91	85	93	—
Netherlands	102	74	53	64	65	107	110	92	95	95
Sweden	110	91	80	85	106	105	100	101	100	118
Poland	97	73	52	57	68	92	82	70	70	78

Sources : League of Nations : *World Production and Prices*, 1925-1933, Geneva, 1934, p. 60; *Monthly Bulletin of Statistics*, 1935, No. 8.

C.—Industries particularly affected by the Depression

Industries and countries	1925	1926	1927	1928	1929	1930	1931	1932	1933
	In thousands								
Motor-car manufacture :									
United States..	4,266	4,301	3,401	4,359	5,358	3,356	2,390	1,371	1,960
Other countries	620	703	784	884	955	785	636	606	752
World	4,886	5,004	4,185	5,243	6,313	4,141	3,026	1,977	2,712
	Index numbers (basis : 1929 = 100)								
United States..	80	80	63	81	100	63	45	26	37
Other countries	65	74	82	93	100	82	67	64	79
World	77	79	66	83	100	66	48	31	43
	In thousands								
Motor-cycle manufacture :									
Germany.....	56	49	84	162	201	104	59	47	51
Other countries	205	261	253	316	324	260	202	171	131
World	261	310	337	478	525	354	261	218	182
	Index numbers (basis 1929 = 100)								
Germany.....	28	24	42	81	100	52	29	23	25
Other countries	63	80	78	97	100	80	62	53	40
World	50	59	64	91	100	67	50	42	35
	Gross tonnage of ships launched in thousands of tons								
Construction of merchant vessels :									
United Kingdom	1,085	640	1,226	1,446	1,523	1,478	502	188	133
Other countries	1,108	1,018	1,016	1,228	1,236	1,411	1,115	538	356
World	2,193	1,658	2,242	2,674	2,759	2,889	1,617	726	489
	Index numbers (basis 1929 = 100)								
United Kingdom	71	42	80	95	100	97	33	12	9
Other countries	90	82	82	99	100	114	90	44	29
World	79	60	81	97	100	105	59	26	18

Sources : Statistical Year-Book of the League of Nations, 1933-34, Geneva, 1934, pp. 170 and 172. For motor-cycle manufacture cf. *Statistisches Jahrbuch fur das Deutsche Reich*, 1934, p. 81*.

APPENDIX 4

Index Numbers of Agricultural Production

Basis : Average for 1925-1929 = 100

Agricultural production	1929	1930	1931	1932	1933	1934
Europe (including U.S.S.R.) :						
Cereals and other food crops.....	107	108	101	105	116	113
Meat	108	111	109	108	105	—
All foodstuffs	108	109	104	106	111	112
Textiles	114	113	112	108	126	135
All agricultural raw materials....	117	107	98	90	97	109
North America :						
Cereals and other food crops.....	93	92	96	104	78	57
Meat	101	98	99	100	105	112
All foodstuffs	96	94	98	102	90	81
Textiles	101	96	117	93	98	79
All agricultural raw materials....	108	93	82	62	71	71
Latin America :						
Cereals and other food crops.....	94	104	101	99	103	109
Meat	101	104	99	98	102	—
All foodstuffs	100	105	100	101	105	104
Textiles	105	100	103	105	128	138
All agricultural raw materials....	112	107	99	84	91	107
Asia :						
Cereals and other food crops.....	102	103	105	103	106	100
Meat	104	105	105	110	110	—
All foodstuffs	102	103	105	104	106	101
Textiles	104	106	88	93	103	108
All agricultural raw materials....	107	110	99	101	110	111
Africa :						
Cereals and other food crops.....	110	100	105	104	107	117
Meat	101	108	110	110	111	—
All foodstuffs	106	105	110	112	112	119
Textiles	111	108	97	93	110	105
All agricultural raw materials....	111	110	94	97	109	115
Oceania :						
Cereals and other food crops.....	97	140	129	143	120	106
Meat	105	108	113	125	126	—
All foodstuffs	102	119	118	131	123	120
Textiles	104	101	110	115	111	112
All agricultural raw materials....	103	99	100	105	105	108

Sources : Statistical Year-Book of the League of Nations, 1934-35, Geneva, 1935, pp. 162-165; League of Nations : *World Economic Survey*, 1932-33, Geneva, 1933, pp. 77-78.

APPENDIX 5

Variations in Goods Traffic on the Railways of Various Countries [1]

	1926	1927	1928	1929	1930	1931	1932	1933
	Absolute figures in millions of ton-kilometres							
Industrial countries :								
United Kingdom	21,569	28,854	27,137	29,077	27,335	25,005	22,896	23,077
Belgium	8,272	7,810	7,808	8,386	7,133	6,027	4,534	4,440
Germany.....	59,016	64,888	66,337	68,936	54,669	45,497	38,905	41,670
Switzerland	1,788	1,979	2,196	2,330	2,182	2,017	1,651	1,657
Austria	4,018	4,345	4,342	4,545	3,869	3,199	2,620	2,589
France [2]	41,820	37,807	40,366	43,131	42,031	37,999	32,569	31,717
Czechoslovakia .	9,324	10,250	10,903	11,250	9,320	8,281	6,434	5,813
United States...	653,254	630,727	636,673	657,263	563,278	453,157	343,544	360,000
Canada	49,862	50,956	60,751	51,137	43,222	37,531	33,779	30,795
Australia [2]	4,897	5,401	5,092	6,304	5,813	5,452	5,510	5,677
Agricultural countries :								
Sweden	3,575	3,932	3,133	4,586	4,255	3,465	2,497	2,517
Italy	12,532	12,386	10,995	11,666	12,246	10,991	9,584	8,659
Japan [2]	12,325	12,940	13,303	13,114	11,365	11,070	11,065	12,526
Finland [2]	1,665	1,807	1,875	1,837	1,618	1,468	1,503	1,705
Poland	15,020	17,560	20,161	21,242	18,296	18,291	13,539	14,182
Hungary	2,484	2,877	2,906	2,884	2,851	2,431	2,065	1,733
British India ...	33,316	35,813	35,792	35,197	33,367	30,000	28,130	30,589
	Index numbers (basis : 1928 = 100)							
Industrial countries :								
United Kingdom	79	106	100	107	101	92	84	85
Belgium	106	100	100	107	91	77	58	57
Germany	89	98	100	104	82	69	59	63
Switzerland	81	90	100	106	100	92	75	76
Austria	93	100	100	105	89	74	60	60
France.....	104	94	100	107	104	94	81	79
Czechoslovakia .	86	94	100	103	85	76	59	53
United States ..	103	99	100	103	88	72	54	57
Canada	82	84	100	84	71	62	56	51
Australia.....	96	106	100	124	114	107	108	111
Agricultural countries :								
Sweden	114	126	100	146	136	111	80	80
Italy	114	113	100	106	111	100	87	79
Japan	93	97	100	99	85	83	83	94
Finland	89	91	100	93	86	78	80	91
Poland	75	87	100	105	91	91	67	70
Hungary	85	99	100	99	98	80	71	60
British India ...	93	100	100	98	93	84	79	85

[1] Mainly *petite vitesse* traffic. Commercial or paying traffic only, unless otherwise stated. For 1933 the estimates are provisional figures.

[2] Including service traffic.

Source : Statistical Year-Book of the League of Nations, 1933-34, Geneva, 1934, pp. 182-183 and 1934-35, Geneva, 1935, pp. 197-198.

APPENDIX 6

Variations in the Volume of Imports and Exports of Various Countries

Basis : 1929 = 100

Imports and exports	1926	1927	1928	1929	1930	1931	1932
Industrial countries :							
United Kingdom :							
Imports	95.8	97.5	94.5	100	97.7	100.6	88.3
Exports	82.1	94.7	96.7	100	82.0	62.7	62.9
Germany :							
Imports	74.3	107.2	103.6	100	88.6	75.3	68.8
Exports	76.8	79.1	90.0	100	95.4	87.4	58.8
Switzerland :							
Imports	88.3	90.6	97.3	100	104.7	106.8	97.4
Exports	86.7	98.5	101.2	100	89.3	76.2	49.9
France :							
Imports	83.4	82.0	87.2	100	107.5	106.1	88.8
Exports	91.2	99.3	100.7	100	89.1	76.2	58.5
Czechoslovakia :							
Imports	71.9	85.3	91.5	100	92.5	85.1	59.8
Exports	—	96.0	99.1	100	91.1	81.3	50.0
United States :							
Imports	85.3	87.3	87.2	100	85.1	84.8	61.6
Exports	86.4	93.4	96.5	100	81.8	66.8	52.2
Agricultural countries :							
Italy :							
Imports	87.9	85.8	100.7	100	92.5	79.7	72.2
Exports	84.3	87.5	91.8	100	95.0	97.0	77.4
Japan :							
Imports	93.2	102.4	97.7	100	85.7	95.0	97.9
Exports	82.2	89.2	91.0	100	83.9	84.2	94.2
Hungary :							
Imports	81.2	109.6	108.3	100	84.3	61.5	45.4
Exports	85.1	70.0	71.3	100	96.4	71.7	49.7
Yugoslavia :							
Imports	91.7	90.0	98.1	100	105.0	83.6	49.7
Exports	112.8	86.2	81.1	100	104.6	95.1	72.3
Argentine :							
Imports	78.8	83.6	96.1	100	85.6	60.0	43.3
Exports	79.7	110.9	101.9	100	72.2	99.5	91.7
Malaya :							
Imports	104.2	105.7	94.9	100	88.6	67.3	58.4
Exports	121.7	108.9	90.6	100	90.7	66.7	73.6

Source : League of Nations : *Review of World Trade*, 1933, Geneva, 1934, pp. 72-81.
Original basis : 1927 = 100.

APPENDIX 7

FLUCTUATIONS IN PRICES

A.—Index Numbers of Wholesale Prices and Cost of Living

Basis : 1929 = 100

Country	Wholesale prices					Cost of living				
	1930	1931	1932	1933	1934	1930	1931	1932	1933	1934
United Kingdom ...	84	70	68	69	71	96	90	88	85	86
Belgium	87	74	63	59	56	104	93	84	83	79
Germany.....	91	81	70	68	72	96	88	78	77	79
Switzerland	90	78	68	65	64	98	93	86	81	80
Netherlands	90	77	65	63	63	96	90	84	83	83
France.....	88	80	68	64	60	105	102	95	94	93
Czechoslovakia	89	81	75	72	74	100	96	94	93	92
United States.....	91	77	68	69	79	96	87	79	76	79
Canada	91	75	70	70	75	99	90	82	78	79
Sweden	87	79	78	76	81	97	94	92	90	91
Norway	92	82	82	82	83	97	92	90	89	89
Denmark	86	76	78	83	90	95	89	89	93	96
Italy	89	78	73	66	65	97	87	83	80	76
Japan	82	70	73	82	81	86	75	75	80	82
Spain	100	101	99	95	97	103	107	103	100	102
Finland	92	86	92	91	92	92	85	84	82	80
Poland	89	78	68	61	58	93	85	77	70	66
Rumania.....	84	65	58	57	58	99	71	59	55	53

Sources : (1) Wholesale prices : Calculated from the official index numbers compiled in the *Monthly Bulletin of Statistics* of the League of Nations; (2) Cost of living : Series compiled and calculated by the International Labour Office; cf. *International Labour Review*, July 1935, pp. 124-129.

B.—Index Numbers of Quotations of Industrial Shares

Basis : 1929 = 100

Country	Number of shares	1927	1928	1929	1930	1931	1932	1933	1934
Industrial countries :									
United Kingdom.	92	89	102	100	81	63	60	74	90
Belgium	80	—	113	100	64	45	34	34	29
Germany.....	213	122	113	100	80	61	40	52	76
Switzerland	26	85	105	100	91	70	53	64	66
Netherlands	49	89	97	100	71	42	28	30	31
France.....	164	52	79	100	85	58	47	45	35
Czechoslovakia ..	—	70	99	100	82	65	52	57	60
United States....	351	62	82	100	74	46	24	35	43
Canada	87	49	70	100	64	37	24	35	46
Agricultural countries :									
Sweden	52	90	110	100	85	55	36	42	54
Norway	—	74	95	100	76	60	64	80	80
Denmark	21	96	95	100	94	85	75	83	96
Italy	74	84	100	100	86	60	45	52	61
Spain	22	75	93	100	90	66	50	45	46
Poland	7	143	151	100	71	40	28	30	29

Source : Calculated from statistics compiled in the *Monthly Bulletin of Statistics* of the League of Nations.

APPENDIX 8

NATIONAL INCOME OF GREAT BRITAIN

A.—National Income of Great Britain in 1911 and 1924 as calculated by Mr. A. L. Bowley and Sir Josiah Stamp

In millions of pounds

	1911 Including S. Ireland	1924 Excluding S. Ireland
Income, other than wages, above the exemption limit (£160 in 1911, £150 in 1924) :		
Lands and buildings	178	222
Occupation of land	41	30
Government securities	48	145
Government securities : not subject to tax.	—	25
Trades and professions	528	1,130
Salaries	130	641
Net difference between assessed and full income	37	25
	962	2,218
Intermediate income :		
Salaries	84	101
Other earned income	180	89
Dividends, etc.	50	77
	314	267
Wages	802	1,600
Other income :		
War pensions	8	69
Old-age pensions	12	24
Employers' contribution to insurance funds.	—	35
	20	128
Total : *Aggregate income*...	2,098	4,213
Subtract : Income belonging to foreigners...	—	25
Payment to United States, less Reparations	—	24
4 per cent. of home produced income for S. Ireland	74	—
Disposable[1] *income* in Great Britain and Northern Ireland	2,024	4,164
Less transfers :		
Pensions	20	93
National Debt interest	16	268
Social income...	1,988	3,803

[1] Disposable in the sense that the income comes into the possession of individuals or corporations in the United Kingdom, and can be disposed in private or public expenditure or saved at their choice.

B.—National Income of Great Britain from 1926 to 1931 as calculated by Mr. Colin Clark

In millions of pounds

	1926	1927	1928	1929	1930	1931
Assessable income allowing for losses, evasion and income of charities	2,200	2,261	2,294	2,347	2,171	1,951
Amount written off stocks out of income	74	88	23	81	251	102
Employers' rates and social insurance	124	130	130	120	116	115
Income of insured workers	1,658	1,810	1,808	1,840	1,780	1,709
Other income not assessed	109	109	109	109	104	94
Government income :						
Post office profits	4	6	8	9	10	11
International transactions	4	1	15	24	19	16
Gross total	4,173	4,405	4,387	4,530	4,451	3,998
Salaries below £250 counted twice	185	215	235	235	225	215
Interest on the national debt	279	278	278	274	263	259
Income due to foreigners	25	25	25	25	25	25
Net income	3,684	3,887	3,849	3,996	3,938	3,499
Division between factors of production :						
Wages	1,352	1,474	1,460	1,482	1,433	1,376
Salaries	821	821	835	838	827	808
Rent (land and buildings)	270	282	288	293	303	313
Profits and interest	1,008	1,035	990	1,106	1,117	825
Total	3,451	3,612	3,573	3,719	3,680	3,322
Net income from overseas	233	275	276	287	258	177

Source : Colin Clark : *The National Income*, 1924-1931, Macmillan, 1932, pp. 70 and 72.

C.—Composition of the National Income of Great Britain from 1927 to 1931, according to Mr. Colin Clark

In millions of pounds

	1927	1928	1929	1930	1931
I. Analysis of the *production* of national income :					
National income	3,887	3,849	3,996	3,938	3,499
Depreciation and maintenance	404	433	438	437	439
Gross income	4,291	4,282	4,432	4,375	3,938
Net income from overseas	275	276	287	258	177
Gross annual value of dwellings	203	208	213	217	221
Waste recovery	10	10	10	10	10
Net output :					
Agriculture	234	235	238	235	234
Industry	1,835	1,821	1,937	1,770	1,572
Transport, etc.	1,734	1,732	1,749	1,885	1,724
II. Analysis of net income from the *expenditure* side :					
Imports	472	483	493	471	425
Industrial output	1,265	1,229	1,268	1,189	1,068
Home agricultural and fisheries produce	264	264	271	256	250
Distributive and other services	1,361	1,306	1,458	1,624	1,492
Gross rent of dwellings	203	208	213	217	221
Total	3,565	3,490	3,703	3,754	3,456
Investments	736	791	731	620	482
Gross income	4,291	4,281	4,434	4,374	3,938

Source : Colin Clark : *The National Income*, 1924-1931, pp. 115 and 117.

D.—Consumption of Food in Great Britain

Commodity	Average 1924-1927		1932		Per capita consumption	
	Total consumption	Retail value millions of £	Total consumption	Retail value millions of £	1924-1927	1932
Beef and veal	1,396 thous. tons	140	1,292 thous. tons	106	69 1/2 lbs.	62 1/2 lbs.
Mutton and lamb	514 "	63	633 "	54	25 1/2 "	30 1/2 "
Bacon	416 "	47	620 "	56	20 1/2 "	30 "
Ham	80 "	16	59 "	8	4 "	3 "
Pork	250 "	40	288 "	32	12 1/2 "	11 "
Lard	171 "	16	155 "	12	8 1/2 "	7 1/2 "
Rabbits	40 "	2	40 "	2	2 "	2 "
Poultry	73 "	12	100 "	17	3 3/4 "	5 "
Milk	725 m. galls.	85	851 m. galls.	89	16 galls.	18 1/2 galls.
Butter	300 thous. tons	68	455 thous. tons	58	15 1/2 lbs.	21 3/4 lbs.
Margarine	238 "	25	200 "	11	12 "	9 1/2 "
Cheese	188 "	28	198 "	22	9 1/2 "	9 3/4 "
Eggs	5,079 m.	37	6,960 m.	40	113 eggs	150 eggs
Egg products	—	4	—	3 1/2	—	—
Cream	4 m. galls.	4	4 1/2 m. galls.	4	2/3 pint	3/4 pint
Condensed milk	159 thous. tons	8	200 thous. tons	6	8 lbs.	9 3/4 lbs.
Bread	1,690 m. 4-lb. loaves	63	1,720 m. 4-lb. loaves	42	37 4-lb. loaves	37 4-lb. loaves
Fish	820 thous. tons	65	915 thous. tons	59	40 3/4 lbs.	41 1/2 lbs.
Sugar	1,685 "	51	1,900 "	51	84 "	92 "
Tea	420 m. lbs.	39	450 m. lbs.	39	9 1/2 "	10 "
Coffee	16 thous. tons	3	17 thous. tons	3 1/2	3/4 "	3/4 "
Cocoa	50 "	6	67 "	7 1/2	2 1/2 "	3 1/4 "
Flour	2,000 "	47	2,000 "	32	99 "	97 "
Fruit	1,970 "	120	2,200 "	122	98 "	106 "
Potatoes	3,767 "	44	4,114 "	38	187 "	200 "
Other vegetables	—	40	—	40	—	—
Total value of primary foodstuffs		1,073		954 1/2		
Add for preparation of complex foodstuffs		107 1/2		100		
Add for service in hotels and restaurants		59		53		
Total expenditure upon food		1,239 1/2		1,107 1/2		

Source A. E. Feavearyear "The National Expenditure, 1932" in *The Economic Journal*, London, March 1934, p. 34

E.—British Imports of Foodstuffs

Commodity	Quantity	1924	1929	1930	1931	1932	1933
Wheat	In thousands of cwts.	116,708	110,822	103,595	118,876	104,627	111,881
Wheatmeal and flour	„	10,623	9,617	11,554	10,573	8,428	9,747
Barley	„	21,608	11,951	15,188	15,368	10,122	15,956
Maize	„	36,381	33,250	32,069	51,000	50,115	49,604
Beef, chilled and frozen	„	12,139	11,421	11,346	11,703	11,183	11,026
Mutton and lamb, frozen	„	4,930	5,602	6,356	7,072	6,896	6,633
Bacon and ham ..	„	8,924	8,933	9,818	11,559	11,978	9,870
Butter	„	5,096	6,275	6,648	7,709	8,059	8,749
Cheese	„	2,840	2,962	3,082	2,856	2,974	3,016
Fish, fresh or frozen	„	2,544	3,363	3,418	2,959	2,606	2,438
Apples	„	6,751	5,499	5,821	7,288	7,748	7,121
Oranges	„	7,240	8,955	9,593	9,966	9,011	11,211
Cocoa, raw	„	843	1,329	1,090	1,224	1,392	1,407
Coffee	„	288	313	374	352	422	328
Currants	„	1,277	1,081	1,178	1,035	1,125	1,018
Raisins	„	990	1,552	1,210	1,203	1,648	1,568
Sugar, raw	„	22,966	40,923	37,142	35,535	47,004	40,417
Sugar, refined ..	„	11,792	1,067	1,091	1,052	544	582
Tea	„	3,880	4,144	4,043	3,977	4,355	3,774
Tobacco, unmanufactured	„	1,455	2,059	1,995	1,661	1,483	1,798
Eggs in shell [1] ...	Thousand great hundreds	20,279	24,964	26,541	25,925	19,995	18,374
Spirits (proof gallons)	Thousand gallons	2,523	2,287	2,362	2,085	1,484	1,982
Wine	„	16,903	14,537	13,242	14,218	12,039	14,324
Live cattle	Thousands	1,010	750	839	766	643	634
Bananas	Thousand bunches	11,064	14,280	14,375	15,668	16,808	15,687

[1] Total imports

Source: *The Board of Trade Journal*, 1932, 21 January, p. 88, and 1934, 18 January, p. 92

APPENDIX 9

NATIONAL INCOME OF GERMANY

A.—National Income of Germany before the War

Year	National income at actual prices		Index of wholesale prices (basis : 1913=100)	Index of real national income (basis : 1913 = 100)		Index of real per capita income (basis : 1913 = 100)[3]
	Thousands of millions of marks	Index number (basis : 1913=100)		*a*[1]	*b*[2]	
1891	24.8	49.5	95.0	52.1	50.7	68.3
1892	24.8	49.6	83.8	59.1	54.0	71.7
1893	25.0	49.9	77.0	64.7	55.3	74.5
1894	25.4	50.6	72.0	69.9	58.8	77.0
1895	25.9	51.6	70.5	73.3	60.6	78.2
1896	26.7	53.2	70.9	75.2	62.3	79.2
1897	27.6	55.0	77.1	71.5	62.2	77.8
1898	28.6	57.1	81.9	69.7	62.8	77.3
1899	29.8	59.5	82.2	72.3	65.3	79.6
1900	30.9	61.6	87.3	70.7	65.8	78.7
1901	31.3	62.5	81.8	76.4	68.8	80.9
1902	31.8	63.4	81.0	78.4	70.0	81.2
1903	32.6	65.0	80.3	81.0	72.1	82.5
1904	33.8	67.5	83.1	81.2	73.8	83.0
1905	35.2	70.2	86.1	81.6	75.5	84.0
1906	37.7	75.3	87.7	85.8	80.3	87.8
1907	39.7	79.2	98.3	79.8	79.5	86.3
1908	40.9	81.7	93.1	87.6	84.7	90.1
1909	42.5	84.8	93.2	91.0	87.8	92.3
1910	44.0	87.8	90.5	97.0	92.2	95.6
1911	45.6	91.1	97.2	93.6	92.5	94.6
1912	47.6	95.1	108.0	88.0	91.4	92.6
1913	50.1	100.0	100.0	100.0	100.0	100.0

[1] Converted by means of the index of wholesale prices, which has been used here in the absence of a cost-of-living index for the period in question. The method is not accurate and produces irregular oscillations in the index of real national income . a fall in years in which prices rose suddenly and *vice versa*. In order to attenuate these oscillations by a comparatively simple method, the second index of real national income *(b)* has been calculated and is believed to be more accurate.

[2] Converted by means of a special index in which all the variations in wholesale prices are reduced by half. This method is based on the assumption that the purchasing power of a fraction only of the national income varies directly with wholesale prices, whereas other sections of national income are practically unaffected by price variations, and that the purchasing power of still other income increases and decreases with wholesale prices, but to a less marked extent. The index *b* comes exactly half-way between the index *a* and the index of nominal national income.

[3] Calculated in the same way as index *b*.

Sources: The first three columns of the table are taken from " Das deutsche Volkseinkommen vor und nach dem Kriege " *(bearbeitet im Statistischen Reichsamt), Einzelschriften zur Statistik des Deutschen Reiches*, No. 24, Berlin, 1932, p. 67, table 6, and p. 65. The figures in the following columns were calculated by the author.

B.– National Income of Germany from 1925 to 1933

(a) *Nominal value at actual prices in millions of RM.*

	1925	1926	1927	1928	1929	1930	1931	1932 [1]	1933 [1]
Agriculture [2]	5,677	5,829	5,939	5,816	5,487	4,950	4,375	3,825	4,045
Industry, commerce and transport [3]	10,899	10,813	12,022	12,187	11,768	9,950	7,500	6,000	6,500
Wages and salaries [4]	33,747	34,815	38,880	42,621	43,045	39 851	33,378	25,711	25,980
Income from capital	1,191	1,563	2,107	2,784	3,264	3,341	3,195	2,318	2,286
Rent [5]	546	637	759	836	871	900	900	800	760
Pensions	5,552	7,117	7,411	8,433	9,188	9,994	10,080	9,014	8,395
Total private income	57,612	60,774	67,118	72,677	73,623	68,986	59,428	47,668	47,966
Add :									
Income of companies	928	904	1,316	1,308	882	400	– 1,000	450	100
Income of public undertakings ...	1,450	2,058	2,408	2,483	2,457	2,318	1,218	1,091	976
Employers' social insurance contributions [6]	1,256	1,650	1,950	2,250	2,391	2,365	2,198	1,721	1,657
Taxes not included in private income	2,581	2,623	3,469	2,978	3,652	4,024	3,664	2,425	2,265
Deduct :									
Income counted twice because of transfer (social pensions).....	3,849	5,336	5,507	6,323	7,056	7,870	8,050	7,189	6,545
National income ..	59,978	62,673	70,754	75,373	75,949	70,223	57,458	45,266	46,419

[1] Provisional data.
[2] Income of independent farmers
[3] Including independent incomes in the liberal professions
[4] Including the incomes of the managing staffs of undertakings (directors, managers, etc.)
[5] Including the rent of houses occupied by their owners in towns.
[6] The employed persons' contributions are deducted from their income : they are included in the amount of wages and salaries. German statistics add to this the employers' contributions, which the latter do not show as part of their income Consequently the sums transferred by social insurance are counted

B.—National Income of Germany from 1925 to 1933 *(continued)*

(b) *Real value in millions of RM. at the purchasing power of 1928 (estimated by means of the cost-of-living index)*

	1925	1926	1927	1928	1929	1930	1931	1932 [1]	1933 [1]
Agriculture . . .	6,161	6,262	6,104	5,816	5,412	5,098	4,884	4,799	5,179
Industry, commerce and transport . . .	11,827	11,617	12,356	12,187	11,608	10,247	8,372	7,528	8,322
Wages and salaries	36,622	37,403	39,959	42,621	42,459	41,041	37,261	32,260	33,261
Income from capital	1,292	1,679	2,165	2,784	3,220	3,441	3,567	2,908	2,927
Rent	593	685	780	836	859	927	1,005	1,004	973
Pensions	6,025	7,646	7,617	8,433	9,063	10,292	11,253	11,310	10,748
Total profit income	62,520	65,292	68,981	72,677	72,621	71,046	66,341	59,809	61,408
Add :									
Income of companies	1,007	971	1,352	1,308	870	412	−1,116	− 565	128
Income of public undertakings . . .	1,573	2,211	2,475	2,483	2,423	2,387	1,360	1,369	1,250
Employers' social insurance contributions	1,363	1,773	2,004	2,250	2,359	2,436	2,454	2,159	2,121
Taxes not included in profit income.	2,801	2,818	3,565	2,978	3,602	4,144	4,090	3,043	2,900
Deduct :									
Income counted twice because of transfer (social pensions)	4,177	5,733	5,660	6,323	6,960	8,105	8,986	9,020	8,379
National income . .	65,087	67,332	72,717	75,373	74,915	72,320	64,142	56,795	59,428

(Cf. diagram XVII, p. 87)

twice once as employed persons' and employers' contributions, and once as pensions and allowances The total amount of these allowances must therefore be deducted in order to arrive at the national income.
Sources : "Das deutsche Volksemkommen vor und nach dem Kriege", *op cit.*, p 83; *Statistisches Jahrbuch fur das Deutsche Reich*, 1934, p. 501.

APPENDIX 10

NATIONAL INCOME OF FRANCE

A.—Private Income in France from 1920 to 1928

In thousands of millions of francs

Income	1913 [1]	1920	1921	1922	1923	1924	1925	1926	1927	1928
A. *Wages and salaries*										
Agriculture	3.3	11.0	11.0	11.0	11.3	11.6	12.0	14.0	14.2	15.0
Mines, industry and transport [2]	6.6	26.4	25.8	25.3	28.1	34.2	35.9	42.0	42.3	45.0
Railways, commerce, banks, liberal professions	2.9	10.7	11.4	11.6	12.1	14.1	15.4	17.7	18.5	19.8
Domestic service	1.0	2.6	2.6	2.5	2.7	3.1	3.5	4.3	4.4	4.7
Public services	2.0	5.9	7.3	7.0	6.7	7.0	8.2	9.6	10.3	12.0
Total...	15.7	56.6	58.0	57.3	60.9	70.0	75.0	87.6	89.7	96.5
B. *Income from capital*										
Movable property	4.2	11.8	14.7	15.8	18.4	20.8	23.4	27.2	25.6	25.3
Buildings	2.6	3.5	4.2	5.2	6.1	7.0	7.8	9.0	10.0	11.0
Landed property	2.6	4.0	4.0	4.0	4.5	5.2	6.5	7.8	9.0	9.0
Total...	9.4	19.3	22.9	25.0	29.0	33.0	37.7	44.0	44.6	45.3
C. *Mixed income (from capital and labour)*										
Agriculture	5.8	14.7	14.8	14.3	16.8	19.0	23.9	32.5	31.3	34.5
Commerce and industry	4.0	14.6	13.6	16.6	19.6	22.1	22.4	26.9	25.2	27.3
Liberal professions	0.6	1.9	2.0	2.2	2.4	2.6	2.9	3.4	3.6	4.0
Total...	10.4	31.2	30.4	33.1	38.8	43.7	49.2	62.8	60.1	65.8
D. *Pensions*	0.5	3.0	3.4	3.6	3.7	4.3	6.2	6.5	9.0	9.8
Grand total...	36.0	110.1	114.7	119.0	132.4	151.0	168.1	200.9	203.4	217.4
Index number (basis : 1913 = 100)	100	306	319	331	368	419	467	558	565	604
Cost-of-living index (basis : 1913 = 100)	100	342	309	296	334	369	400	505	514	519

[1] Pre-war territory.
[2] Excluding railways.

Source: Michel Huber: *La population de la France pendant la guerre (avec un appendice sur les revenus avant et après la guerre)*, published by the Carnegie Foundation for International Peace, 1931, pp. 942 and 957.

B.—Private Income in France from 1926 to 1932

In thousands of millions of francs

Year	Wages and salaries	Income from capital		Mixed income (capital and labour)			Pensions	Grand total (round figures)
		Movable property	Buildings	Agricultural (including rent of land)	Industry and commerce [1]	Liberal professions		
1926	92.7	28.0	9.0	39.5	28.2	3.4	7.5	208
1927	95.1	26.3	10.0	39.9	27.5	3.6	7.8	210
1928	103.0	26.8	11.0	43.1	29.5	4.0	9.3	227
1929	115.6	28.3	12.0	44.8	29.0	4.3	11.2	245
1930	122.2	28.8	13.3	35.2	26.7	4.4	12.2	243
1931	117.0	27.5	14.0	30.7	21.0	4.3	14.0	228
1932 (prov.)	107.6	22.6	14.0	26.5	17.0	4.3	14.0	206

[1] Including company dividends.

Source: L. Dugé de Bernonville: "Les revenus privés", in *La France économique en 1932*, Paris, 1933, p. 67.

APPENDIX 11

NATIONAL INCOME OF THE UNITED STATES

In millions of dollars

	1929	1930	1931	1932	1933	1934
	Income paid out					
Agriculture	6,157	5,495	4,271	3,192	2,993	3,299
Mines	2,080	1,733	1,206	813	772	1,008
Electricity and gas	1,304	1,475	1,408	1,275	1,164	1,143
Manufacturing industries	18,014	15,942	12,363	8,544	8,273	10,000
Building	3,257	2,939	1,969	948	781	869
Transport	6,592	6,129	5,169	4,083	3 747	3,993
Post, telegraph, telephone	913	946	894	801	727	749
Commerce	11,385	10,839	9,555	7,538	6,620	7,177
Credit	8,415	7,540	6,296	4,925	3,998	4,130
Administration	6,809	7,048	7,193	7,153	7,377 [1]	8,404 [1]
Services	8,459	7,979	6,939	5,442	4,884	5,412
Miscellaneous	5,191	4,908	4,170	3,250	3,095	3,256
Total	78,576	72,973	61,433	47,964	44,431	49,440
	Income produced					
Agriculture	7,159	5,555	3,601	2,335	3,300	4,451
Mines	1,894	1,307	701	474	522	842
Electricity and gas	1,295	1,197	1,125	985	907	924
Manufacturing industries	19,308	14,072	9,526	5,623	7,797	9,791
Building	3,225	2,756	1,742	670	595	729
Transport	7,216	6,206	5,007	3,760	3,746	3,999
Post, telegraph, telephone	1,023	994	906	744	656	688
Commerce	10,955	9,131	7,372	5,254	5,772	6,340
Credit	8,219	7,113	5,702	4,360	3,677	3,859
Administration	6,805	7,043	7,189	7,148	7,360 [1]	8,381 [1]
Services	9,207	8,459	7,198	5,379	4,957	5,802
Miscellaneous	4,728	4,084	3,515	2,813	2,601	2,755
Total	81,034	67,917	53,584	39,545	41,889	48,561
	Variations in reserves					
Agriculture	1,002	60	— 670	— 857	307	1,152
Mines	— 186	— 426	— 505	— 339	— 250	— 166
Electricity and gas	9	— 278	— 283	— 290	— 257	— 219
Manufacturing industries	1,294	—1,870	—2,837	—2,921	— 476	— 209
Building	— 32	— 183	— 227	— 278	— 186	— 140
Transport	624	77	— 162	— 323	1	6
Post, telegraph, telephone	110	48	12	— 57	— 71	— 61
Commerce	— 430	—1,708	—2,183	2,284	— 848	— 837
Credit	— 196	— 427	— 594	— 565	— 321	— 271
Administration	— 4	— 5	4	— 5	— 17	— 23
Services	748	480	259	— 63	73	390
Miscellaneous	— 463	— 824	— 655	— 437	— 494	— 501
Total	2,458	—5,056	— 7,849	—8,419	—2,542	— 879

[1] Including unemployment relief.

Source : Robert R. NATHAN : " National Income Increased Five Billion Dollars in 1934 ", in *Survey of Current Business*, 1935, No 8, pp. 16-18; " The National Income Produced, 1929-34 ", *ibid*, 1935, No. 11, pp. 16-18.

APPENDIX 12

LABOUR INCOME DURING THE DEPRESSION

A.—Development of Labour Income in the United States during the Depression

	Income paid out (millions of dollars) [1]			Number of persons in full-time employment (in thousands)			Income per person in full-time employment (in dollars)		
	1929	1932	Index [2]	1929	1932	Index [2]	1929	1932	Index [2]
Agriculture	1,313	523	39.8	2,027	1,484	73.2	648	352	54.3
Mines, etc.	1,639	677	41.3	1,054	630	59.8	1,531	1,049	68.5
Manufacturing industry	14,984	6,961	46.5	9,890	6,192	62.6	1,508	1,115	73.9
Building	2,620	689	26.3	1,360	505	37.2	1,904	1,315	69.1
Electrical stations, etc.	531	384	72.3	336	283	84.0	1,561	1,339	85.8
Transport	4,970	2,867	57.7	2,905	1,979	68.1	1,681	1,409	83.8
Communications	713	542	76.1	533	402	75.5	1,319	1,320	100.1
Commerce	8,209	5,597	68.2	5,562	4,489	80.7	1,474	1,245	84.5
Credit	3,246	2,223	68.5	1,422	1,135	79.8	2,282	1,958	85.8
Public administration	4,984	5,277	105.9	3,003	3,122	104.0	1,466	1,448	98.8
Public and private services	5,932	3,713	62.6	4,858	3,628	74.7	1,216	1,015	83.5
Miscellaneous	3,652	2,079	56.9	2,255	1,605	71.2	1,615	1,285	79.6
Total	52,793	31,533	59.7	35,205	25,453	72.3	1,475	1,199	81.3

[1] The income paid out in each branch of industry includes not only the remuneration of those in employment but also the compensation paid to disabled persons. This explains the divergencies—which are slight—between the figures in this table

[2] Percentages as compared with 1929

Source *National Income*, 1929-32, pp 27 and 28, tables 14, 15 and 16

B.—Development of Labour Income in Germany during the Depression

Year	Nominal income at actual prices				Real income in "1929 RM."			
	Total in millions of RM.	In RM. per head of			Total in millions of RM.	In RM. per head of		
		Wage earners	Employed persons	Full-time employees		Wage earners	Employed persons	Full-time employees
1929	43,045	1,867	2,036	2,060	43,045	1,867	2,036	2,060
1930	39,851	1,725	1,995	2,038	41,445	1,794	2,075	2,120
1931	33,378	1,450	1,809	1,868	37,783	1,641	2,048	2,115
1932	25,711	1,117	1,546	1,615	32,833	1,426	1,967	2,056
1933	25,980	1,128	1,514	1,582	33,907	1,472	1,976	2,064

Source: The idea of this table was taken from a survey given in "Das deutsche Volkseinkommen vor und nach dem Kriege" *op. cit.*, p. 87. All the figures in the table, however, had to be corrected and calculated afresh in the light of more recent official publications

C.—Distribution of Labour Income in Germany during the Depression

Income	1929	1930	1931	1932	1933
	Income (in millions of RM.)				
Wages of workers.....	23,339	20,609	16,077	11,403	12,101
Salaries of salaried employees	11,044	10,693	9,030	7,379	7,388
Civil servants' salaries..	6,902	6,917	6,359	5,342	5,206
Other labour income [1]..	1,760	1,632	1,912	1,587	1,285
	Real income (in millions of "1929 RM.") [2]				
Wages of workers.....	23,339	21,433	18,199	14,562	15,792
Salaries of salaried employees	11,044	11,121	10,222	9,423	9,641
Civil servants' salaries .	6,902	7,194	7,198	6,822	6,794
Other labour income [1].	1,760	1,697	2,164	2,027	1,677
	Index of real income (Basis : 1929 = 100)				
Wages of workers.....	100.0	91.8	78.0	62.4	67.7
Salaries of salaried employees	100.0	100.7	92.6	85.3	87.3
Civil servants' salaries..	100.0	104.2	104.3	98.8	98.4
Other labour income [1]..	100.0	96.4	123.0	115.2	95.3

[1] The subsidiary income of wage and salary earners: wages and salaries which cannot be determined by direct statistical observation ("invisible" income); also, during the depression, the remuneration of persons engaged in the voluntary labour service.

[2] Calculated by means of the cost-of-living index.

Source: The figures in the upper part of the table are taken from the survey in "Das deutsche Arbeitseinkommen in der Wirtschaftlichen Erholung", published in *Vierteljahrshefte zur Statistik des Deutschen Reiches*, 1934, Vol. III, p. 71.

APPENDIX 13

EMPLOYMENT AND UNEMPLOYMENT

A. — Index Numbers of Employment in Various Countries during the Depression

Basis : 1929 = 100

	1930	1931	1932	1933	1934
I. *Industrial countries :*					
Great Britain, unemployment insurance					
All occupations	95	91	91	95	98
Germany (medium and large undertakings)					
All occupations	87	—	63	—	—
France					
All occupations	100	93	82	81	78
United States :					
Coal mines	93	80	62	51	59
Manufacturing industries	87	74	61	66	75
Retail trade	97	88	77	76	81
Wholesale trade	96	86	77	76	83
Railways	89	75	61	58	60
Switzerland, employers' statistics	96	88	76	73	73
Netherlands, unemployment insurance	98	90	79	78	77
Austria, sickness insurance	95	87	76	71	70
Czechoslovakia, social insurance	98	92	83	75	75
Canada, employers' statistics	94	85	72	71	81
II. *Agricultural countries :*					
Sweden, federation of industries	100	91	86	85	92
Italy, confederation of industries	97	89	78	79	83
Japan, employers' statistics	90	82	82	90	100
Poland, all industries	87	74	63	63	68
Hungary, social insurance	94	89	82	81	87
Bulgaria, employers' statistics	100	98	101	85	88
Yugoslavia, social insurance	104	101	89	86	100
Estonia, employers' statistics	96	88	83	84	98
Latvia, sickness insurance	105	99	82	87	95

Sources : For Great Britain *Ministry of Labour Gazette*. The figures, which refer to the month of July of each year, are based on the statistics of compulsory unemployment insurance.—For Germany : *Statistisches Jahrbuch fur das Deutsche Reich*, 1931, p. 93, and 1934, p. 113. The figures are taken from the annual reports of the factory inspectors, and cover undertakings employing five or more wage earners; the basis of comparison is the year 1929 (= 100).—For France : *Bulletin de la statistique générale de la France* 1931-1935. All the figures refer to undertakings subject to factory inspection, and, generally speaking, employing 100 or more workers; the figures are based on the numbers in employment at the beginning of July each year. Those employed in July 1930 have been taken as a basis of comparison (= 100).—For the United States : *Monthly Labor Review*. The figures represent annual averages Similar series are published for some other groups of industries, but there is no continuous series covering all wage earners. Series compiled by the International Labour Office, cf. *International Labour Review* All the figures represent annual averages.

B. —Absolute Number of Unempoyed Persons in Various Countries

Annual averages in thousands

(a) = applicants for employment, *(r)* = registered unemployed

	1929	1930	1931	1932	1933	1934
I. *Industrial countries:*						
Great Britain:						
Applicants for work	1,238	1,954	2,637	2,745	2,521	2,159
Unemployment insurance:						
Wholly unemployed	994	1,467	2,129	2,273	2,110	1,802
Temporarily stopped	268	527	587	574	457	369
Belgium, unemployment insurance:						
Wholly unemployed	8	23	79	161	168	183
Partially unemployed	1	4	11	19	17	19
Germany:						
Registered unemployed	1,679	3,139	4,573	5 580	4,733	2,658
Estimates (based on number of workers employed and registered by sickness insurance funds)	2,410	3,650	5,640	7,340	6,770	4,820
Switzerland, applicants for work	8	13	24	54	68	65
Netherlands *(r)*	?	?	138	271	323	333
Austria *(a)*	192	243	300	378	406	370
France *(a)*	10	14	75	305	307	376
Czechoslovakia *(a)*	42	105	291	554	738	677
United States, estimate of the Federation of Labor	?	3,947	7,431	11,489	11,904	10,800
Canada *(a)*	15	33	71	75	82	89
II. *Agricultural countries:*						
Sweden *(a)*	22	25	41	82	126	98
Norway *(r)*	19	19	27	33	36	35
Denmark *(a)*	45	41	59	126	121	98
Italy, wholly unemployed	301	425	734	1,006	1,019	964
Japan, official estimates	?	369	423	486	409	373
Finland *(r)*	4	8	12	17	18	10
Poland *(a)*	129	227	300	256	250	342
Hungary *(a)*	15	44	52	66	61	52
Bulgaria, official estimates	?	?	?	22	25	33
Yugoslavia *(r)*	8	8	10	15	16	16
Mexico, official estimates	?	76	258	337	276	—
Chile *(a)*	?	?	29	107	72	30

Source: The figures are taken from the *I.L.O. Year-Book, 1934-1935*, Vol II, pp. 1-8, with the exception of the estimate of the number of unemployed persons in Germany. This estimate was made in accordance with the British method, that is, by taking the average number of wage earners for each year (*Statistisches Jahrbuch fur das Deutsche Reich*, 1933, p. 20), reducing it by 5 per cent. (to eliminate sick and temporarily disabled persons) and deducting the number of persons in employment (as reported by sickness insurance funds)

C.—Percentage of Unemployed Persons in Various Countries

	1929	1930	1931	1932	1933	1934	1935
I. *Industrial countries :*							
Great Britain, unemployment insurance :							
Wholly unemployed	8.2	11.8	16.7	17.6	16.4	13.9	13.2
Temporarily stopped	2.2	4.2	4.6	4.5	3.5	2.9	2.3
Belgium, unemployment insurance :							
Wholly unemployed	1.3	3.6	10.9	19.0	17.0	19.0	17.9
Partially unemployed	3.0	7.9	16.9	20.7	17.2	17.2	12.8
Germany, trade union figures :							
Wholly unemployed	13.1	22.2	33.7	43.7	—	—	—
Partially employed	7.5	13.4	19.7	22.6	—	—	..
Switzerland, unemployment insurance :							
Wholly unemployed	1.8	3.4	5.9	9.1	10.8	9.8	11.8
Partially unemployed	1.7	7.2	12.1	12.2	8.5	6.1	5.9
Netherlands, unemployment insurance	7.1	9.7	18.1	29.5	31.0	32.1	36.3
Austria, unemployment insurance [1]	12.3	15.0	20.3	26.1	29.0	26.3	23.4
Czechoslovakia, trade union funds[1]	2.2	4.5	8.3	13.5	16.9	17.4	15.9
United States, trade unions :							
Wholly unemployed (weighted).	8.2	14.5	19.1	23.8	24.3	20.9	18.5
Partially unemployed (unweighted)	?	?	19.0	21.0	21.0	24.0	22.0
Canada, trade unions.....	5.7	11.1	16.8	22.0	22.3	18.2	15.4
Australia, trade unions.....	11.1	19.3	27.4	29.0	25.1	20.5	16.5
II. *Agricultural countries :*							
Sweden, trade unions.....	10.7	12.2	17.2	22.8	23.7	18.9	16.1
Norway, trade unions.....	15.4	16.6	22.3	30.8	33.4	30.7	25.3
Denmark, trade union funds.....	15.5	13.7	17.9	31.7	28.8	22.2	19.8
Japan, official estimates.....	—	5.3	6.1	6.8	5.6	5.0	4.6
Poland, employment exchanges...	4.9	8.8	12.6	11.8	11.9	16.3	16.7

[1] Unemployed persons in receipt of benefit.

Sources : International Labour Review. For Germany cf. also *Jahrbuch 1931 des Allgemeinen Deutschen Gewerkschaftsbundes*, 1932, pp. 254 and 255, Berlin, and *Gewerkschaftszeitung*, 1929-1933.

D.—Index Numbers of Unemployment in Various Countries

Basis : 1929 = 100

	1929	1930	1931	1932	1933	1934	1935
I. *Industrial countries :*							
Great Britain	100	154	205	213	191	162	149
Belgium	100	277	838	1,462	1,304	1,458	1,377
Germany	100	164	239	304	260	146	114
Switzerland	100	292	500	592	538	442	506
Netherlands	100	121	229	374	393	399	461
Austria	100	127	162	209	232	214	190
Czechoslovakia	100	205	377	614	768	791	726
United States	100	177	233	290	296	255	226
Canada	100	195	295	386	391	320	270
Australia	100	174	247	261	226	185	149
II. *Agricultural countries :*							
Sweden	100	114	161	213	221	177	150
Norway	100	108	145	200	217	200	166
Denmark	100	88	115	205	186	143	128
Italy	100	141	244	335	339	320	—
Japan	100	135	153	173	140	126	121
Poland	100	180	257	241	243	333	339
World total	100	164	235	291	274	221	193

Source : Series calculated by the International Labour Office, *International Labour Review*, April 1935, pp. 577-578. The index numbers for 1935 were calculated by the author by the same method (except for the world total, which was calculated by the Office).

E. — Unemployment among Men and Women in Great Britain and Germany

(a) as percentage, *(b)* index numbers

(Average for 1929 = 100) [1]

Years and quarters	Great Britain (unemployment insurance)				Germany (independent trade unions)			
	Men		Women		Men		Women	
	a	*b*	*a*	*b*	*a*	*b*	*a*	*b*
1929 : I	12.5	108	7.6	104	21.0	153	12.1	106
II	10.9	94	6.6	90	9.4	69	10.7	94
III	10.9	94	7.2	99	8.8	64	10.6	93
IV	12.0	103	7.8	103	15.6	114	12.2	107
1930 : I	13.7	118	11.2	153	24.0	175	15.5	136
II	15.1	122	14.1	193	20.9	153	15.7	138
III	17.4	150	16.4	225	22.6	165	17.6	154
IV	20.0	172	17.6	241	28.6	209	20.7	182
1931 : I	22.5	194	19.3	264	36.1	264	25.4	223
II	22.1	190	17.9	245	32.5	237	22.6	198
III	23.3	201	19.3	264	35.3	258	25.2	221
IV	23.5	202	16.1	221	41.7	304	29.3	257
1932 : I	24.7	212	18.0	247	46.8	342	33.2	291
II	25.1	216	17.0	233	45.6	333	34.0	298
III	26.1	225	17.4	238	46.0	336	34.5	303
IV	23.5	202	16.1	221	46.0	336	31.3	275
1933 : I	25.8	222	14.1	193	48.8	356	32.3	283
II	23.6	203	12.1	177		—	—	—
III	22.2	191	10.5	144		—	—	—
IV	21.1	182	9.3	127		—	—	—

[1] The words "Average for 1929 = 100" refer to series *b* only, and not to the whole table.

Sources : For Great Britain *Ministry of Labour Gazette*, for Germany *Jahrbuch 1931 des Allgemeinen Deutschen Gewerkschaftsbundes*, and *Gewerkschaftszeitung*, 1932 and 1933. (Cf. diagram XXIX.)

APPENDIX 14

HOURS OF WORK (SHORT TIME)

A. Hours of Work in Industrial Undertakings in France during the Depression

Year and quarter	Index of number of wage-earners employed (basis : 1930 average = 100)	Percentage of wage earners working			Index number of average hours of work (basis : 1930 average = 100)	Index of amount of work performed (basis : 1930 average = 100)
		48 h. or over	40-48 h.	Less than 40 h.		
1930 : I	102.6	96.5	3.3	0.2	100.0	102.6
II	102.3	97.0	2.8	0.2	100.1	102.4
III	99.0	96.6	2.9	0.5	100.0	99.0
IV	96.2	94.5	5.0	0.5	99.8	96.0
1931 : I	97.9	75.7	20.0	4.3	97.1	95.0
II	96.1	68.8	25.1	6.1	96.1	92.3
III	91.2	66.7	26.0	7.3	95.6	87.2
IV	85.8	58.8	29.5	11.7	93.6	80.6
1932 : I	87.0	45.3	28.9	25.8	89.8	75.4
II	82.3	47.8	26.9	25.3	90.2	74.4
III	80.0	50.5	27.7	21.8	91.1	72.9
IV	77.0	57.3	27.3	15.4	93.0	71.8
1933 : I	80.2	59.3	28.1	12.6	93.8	75.2
II	80.7	61.0	26.0	13.0	93.9	75.8
III	79.4	63.6	23.6	12.8	94.2	74.8
IV	76.3	63.6	24.5	11.9	94.4	72.2
1934 : I	79.4	60.1	31.2	8.7	94.2	74.8
II	78.7	58.3	28.2	13.5	93.2	73.3
III	76.4	55.1	29.4	15.5	92.1	70.4
IV	72.4	53.5	30.5	15.9	91 9	66.5

Sources : The statistical data on which the series in this table are based are taken from the *Bulletin du marché du travail* of the Ministry of Labour and Social Welfare. They are also published in the *Bulletin de la statistique générale de la France.* With regard to the method of calculation, cf. Wl. Woytinsky : *Three Sources of Unemployment*, p. 110. (Cf. diagram XXX.)

B.—Variations in Hours of Work in Great Britain

Year	Approximate number of persons whose hours of work were		Net increase (+) or decrease (−) in weekly hours of work
	increased	reduced	
1928	1,400	2,000	− 200
1929	4,050	1,050	+ 8,750
1930	13,175	349,225	− 873,000
1931	294,000	111,000	+ 142,000
1932	6,000	3,750	+ 7,000
1933	2,500	12,500	− 36,000
1934	475	4,925	− 11,400

Source : The *Ministry of Labour Gazette*, January 1935, p. 5.

C.—Average Hours of Work in Industrial Undertakings in the United States

Weekly hours

Month	1928	1929	1930	1931	1932	1933	1934	1935
January	47.9	48.6	46.1	40.2	36.1	34.9	34.3	36.4
February	48.3	48.9	46.6	42.3	37.5	35.2	35.5	37.1
March	48.5	49.0	46.2	41.7	36.2	32.2	36.4	36.6
April	47.6	49.0	45.8	41.7	34.4	33.8	36.1	36.7
May	47.6	48.8	45.0	42.7	33.9	37.4	35.5	36.3
June	47.9	48.6	44.5	40.9	32.7	41.2	35.4	35.9
July	47.8	48.4	43.2	39.9	32.1	42.9	34.1	36.4
August	48.1	48.2	42.6	39.9	32.2	38.2	33.5	37.3
September	48.4	48.8	42.5	39.2	34.9	36.3	33.3	37.8
October	48.1	49.3	42.4	38.2	36.5	36.1	34.0	38.5
November	47.5	46.5	41.2	37.7	36.5	33.8	33.9	38.6
December	48.4	47.0	41.6	38.8	35.4	33.8	35.0	38.8
Average	48.0	48.4	44.0	40.3	35.0	36.3	34.8	38.0

Source : Survey of Current Business, October 1932, p. 20 (up to June 1932); February 1933, p. 28; February 1934, p. 28; February 1935, p. 29; March 1936, p. 28.

APPENDIX 15

WAGES

A.—Movement of Average Rates of Normal Wages in Germany and Great Britain during the Depression

1. *Germany*

Mines, industries and public services.—Men and women

Hourly rates under collective agreements

(Basis : 1928 = 100)

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1928....	95.7	95.8	96.3	98.5	100.5	100.6	100.9	101.6	101.6	102.6	102.7	103.0
1929....	103.1	103.2	103.4	104.0	105.7	106.1	106.3	106.6	106.6	106.7	106.8	107.1
1930....	107.1	107.1	107.1	107.3	107.4	107.4	107.4	107.4	107.4	107.4	107.4	107.3
1931....	106.7	105.3	104.2	102.1	101.3	101.1	101.0	100.9	100.8	100.1	99.5	98.8
1932....	88.8	88.8	88.6	88.6	87.2	86.3	85.9	85.7	85.2	84.9	84.8	84.8
1933....	84.8	84.7	83.6	83.6	83.5	83.5	83.5	83.5	83.5	83.5	83.5	83.5
1934....	83.5	83.5	83.5	83.5	83.5	83.5	83.0	83.0	83.0	83.0	83.0	83.0
1935....	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0

2. *Great Britain*

Agriculture, mines, industry and public services.—Men and women

Weekly rates *(Basis : 1928 = 100)*

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
1928....	—	100.5	—	—	100			100			100	—
1929....	—	100	—	—	100	—		99.5		—	99.5	—
1930....	—	99.5	—	—	99.5	—	—	99.5	—		99	
1931....	—	98.5	—	—	98	—	—	97			96.5	—
1932....	—	96	—	—	96	—	—	95.5			95.5	—
1933....	—	95	—	—	95	—	—	95	—		95	—
1934....	—	95	—	—	95.5	—	—	95.5		—	95.5	
1935....	—	96	—	—	96	—	—	97	—	—	97	—

Sources : For Germany : *Vierteljahrshefte zur Statistik des Deutschen Reiches*, 1931, No. 2; *Wochenbericht des Instituts für Konjunkturforschung*, 1933-1935.—For Great Britain : *Ministry of Labour Gazette*, supplement, February, 1935, p. 1.

B. -Index Numbers of Wages in Various Countries during the Depression

(Basis : 1929 = 100)

Country	Nominal wages					Nominal wages divided by cost-of-living index				
	1930	1931	1932	1933	1934	1930	1931	1932	1933	1934
I. *Industrial countries.*										
Great Britain : Weekly rate.....	100	98	96	95	96	104	109	110	112	111
Belgium : Hourly earnings	108	101	92	90	86	104	109	111	109	108
Germany : Hourly rate	102	97	82	79	79	106	109	104	104	102
Switzerland : Hourly earnings(men)	101	102	98	97	94	103	109	114	119	117
Netherlands : Hourly earnings(men)	102	100	93	89	87	106	111	111	107	105
France (Indust.,Paris): Hourly rate (men)...	109	108	104	104	104	104	106	110	111	112
Czechoslovakia (Industry, Prague) : Hourly rate (minimum)	102	103	103	102	100	102	107	109	110	108
United States (Industrial series of N.I.C.B.) : Hourly earnings.....	100	96	84	83	99	104	111	108	111	124
Canada (Industry) : Hourly rate	100	98	91	87	89	101	109	112	111	113
Australia : Hourly rate (men)...	98	89	84	81	82	103	105	104	104	103
New Zealand : Weekly rate (men)...	100	93	86	82	83	103	103	102	104	103
II. *Agricultural countries.*										
Sweden : Hourly earnings	104	104	102	98	97	107	110	110	108	107
Norway : Daily earnings (men).	100	95	96	95	95	103	103	107	108	107
Denmark : Hourly earnings.....	102	102	102	102	103	107	114	114	110	107
Italy : Hourly earnings.....	99	90	86	84	82	102	103	104	106	109
Poland : Hourly earnings	99	93	85	78	74	106	110	111	112	112
Rumania : Monthly earnings....	96	85	69	63	62	97	120	116	116	117
Latvia [1] : Hourly earnings(men)	104	101	89	80	78	100	107	108	102	104
Estonia : Hourly earnings.....	101	99	93	91	90	114	116	116	120	121

[1] Real wages have been brought to the average for the year 1930 = 100.

Source : Series compiled and calculated by the International Labour Office (f. *International Labour Review*, August 1935, pp. 262-272.

APPENDIX 16

Composition of the Income of Working Class Families

Various sources of income as a percentage of the total

Country	Income from labour				Income from other sources
	Husband	Wife	Other members of the family	Total	
Belgium, 1928-1929 :					
809 workers' families	70.2	3.7	16.2	90.1	9.9
224 salaried employees' families	80.0	2.3	6.8	89.1	10.9
Germany, 1927-1928 :					
896 workers' families	80.7	4.2	4.8	89.7	10.3
546 salaried employees' families	87.2	0.8	2.0	90.0	10.0
Netherlands, 1923 :					
89 workers' families	91.1	1.4	4.2	96.7	3.3
Czechoslovakia, 1927-1928 :					
79 families	74.5	5.0	11.5	91.0	9.0
Switzerland, 1923 :					
18 workers' families	83.1	3.6	3.9	90.6	9.4
Sweden, 1923 :					
747 workers' families	87.6	1.9	4.3	93.8	6.2
Norway, 1927-1928 :					
137 families	87.8	1.0	4.2	93.0	7.0
Denmark :					
87 workers' families	86.0	5.4		91.4	8.6
Finland, 1928 :					
581 workers' families	84.9	4.7	3.6	93.2	6.8
242 salaried employees' families	88.3	2.9	1.4	92.6	7.4
Poland, 1928-1929 :					
93 workers' families	78.7	13.4		92.1	7.9
Estonia, 1925 :					
283-322 families	77.1	6.0	7.4	90.6	9.3
United States, San Francisco, 1925 :					
98 salaried employees' families	88.6	2.6	1.3	92.5	7.5
India, 1926 :					
872 workers' families	79.3	12.6	0.6	92.5	7.5
China, 1926-1927 :					
48 families	56.8	8.8	24.9	90.5	9.5

Sources: "Recent Family Budget Enquiries", *International Labour Review*, Vol. XXVIII, No. 5, November 1933, pp. 635-671, and subsequent numbers.

APPENDIX 17

Trade Union Membership in Various Countries

In thousands

Country	End of the year							
	1926	1927	1928	1929	1930	1931	1932	1933
Germany :								
Independent unions : Workers (A.D.G.B.)..	3,934	4,416	4,867	4,948	4,718	4,135	—	—
Salaried employees (A.F.A.)	388	395	421	453	462	452	—	—
Christian unions (Catholic)	541	605	647	670	659	578		—
Other denominational unions	—	—	618	—	711	714	—	—
Miscellaneous	—	—	1,007	—	1,130	1,082	—	—
Great Britain :								
All unions	5,219	4,918	4,806	4,857	4,841	4,623	4,440	4,387
Unions affiliated to the Trades Union Congress [1]	4,164	3,875	3,673	3,744	3,719	3,613	3,368	3,295
France :								
Independent unions (C.G.T.).....	605	605	641	562	618	677	—	—
Communist unions (C.G.T.U.)	—	250	—	—	290	250	300	320
Denominational unions	—	102	102	102	102	102	155	—
Belgium :								
Independent unions ..	552	531	519	528	537	560	609	630
Denominational unions	—	160	150	181	204	239	301	304
Netherlands :								
Independent unions ..	196	203	221	255	276	320	335	325
Denominational unions	—	159	207	210	235	305	331	325
Austria :								
Independent unions ..	756	773	766	737	655	583	520	—
Denominational unions	76	79	101	108	112	108	101	—
National unions.....	51	48	51	47	50	49	—	—
Czechoslovakia :								
Independent unions..	548	542	557	560	576	611	639	622
National Socialist unions	—	—	—	287	288	288	296	306
Sweden :								
Independent unions ..	415	438	469	508	553	589	652	646

[1] The figures refer to the middle of the year.

Trade Union Membership *(continued)*

In thousands

Country	End of the year							
	1926	1927	1928	1929	1930	1931	1932	1933
Norway :								
Independent unions ..	93	94	106	127	140	145	155	162
Denmark :								
Independent unions ..	156	156	156	250	259	270	300	302
Switzerland :								
Independent unions ..	154	166	176	187	194	207	231	239
Poland :								
Independent unions ..	244	272	272	231	228	205	224	255
Denominational unions	96	89	94	101	—	102	79	—
Miscellaneous	247	235	210	202	—	204	185	—
Spain :								
Independent unions ..	221	221	221	225	225	779	800	—
Hungary :								
Independent unions ..	126	127	124	111	88	88	111	—
Denominational unions	–	52	52	37	52	52	43	—
United States :								
American Federation of Labor [1]	2,804	2,813	2,896	2,933	2,961	2,890	2,532	2,127
Canada :								
Registered unions....	275	290	301	319	322	311	284	286
Japan :								
All unions	285	309	309	331	342	369	378	385
India :								
National Trade Union Federation (Bombay).	—	—	198	197	128	104	111	118
Australia :								
Registered unions	—	912	912	901	856	769	741	—
New Zealand :								
Registered unions	—	—	—	103	102	91	79	72

[1] Average number of contributors for the year ending 31 August.

Sources : Germany : *Statistisches Jahrbuch für das Deutsche Reich*, 1930-1932; *Jahrbuch des A.D.G.B.*, 1931 and 1932.—Great Britain : *The Ministry of Labour Gazette*, 1927-1934.—Canada : *Labour organisation in Canada* (compiled and published by the Ministry of Labour), Ottawa, 1934, p. 9.—Japan : *Industrial Labour in Japan*, published by the International Labour Office, Geneva, 1933, p. 116.—India : *The Labour Gazette*, Bombay, 1935, No. 2, pp. 450-451.—Australia : *Official Year Book*, 1933, p. 747.—New Zealand : *New Zealand Official Year Book*, 1935, p. 609.—For other countries, *I.L.O. Year-Book*, 1933, published by the International Labour Office, Geneva, pp. 532-541; *Annuaire de la Fédération syndicale internationale*, Amsterdam, 1927, 1930 and 1934; *Handwörterbuch des Gewerkschaftswesens*, Berlin.

APPENDIX 18

Industrial Disputes in Various Countries

Workers involved and working days lost (in thousands)

Country	1926	1927	1928	1929	1930	1931	1932	1933[1]	1934[1]
Germany :									
Disputes	351	871	763	441	366	504	642	—	-
Workers involved.	97	503	780	235	225	178	128	—	-
Working days lost	1,222	6,043	20,288	4,490	3,936	2,002	1,112		-
Great Britain :									
Disputes	323	308	302	431	422	420	389	357	471
Workers involved.	2,724	108	124	533	307	490	379	138	134
Working days lost	162.230	1,170	1,390	8.290	4,400	6,980	6,490	1,070	960
France :									
Disputes	1,660	404	823	1,217	1,097	261	330	327	
Workers involved.	349	113	211	241	585	36	54	84	
Working days lost	4,072	1,046	6,377	2,765	7,209	—	—	—	—
Belgium :									
Disputes	140	186	192	168	93	74	63	87	79
Workers involved.	82	45	78	61	65	23	163	39	37
Working days lost	—	1,659	2,254	799	782	399	581	664	2,441
Netherlands :									
Disputes	212	230	205	226	212	215	216	184	152
Workers involved.	9	14	17	21	11	28	32	15	6.2
Working days lost	281	221	648	991	273	856	1,773	534	114
Austria :									
Disputes	204	216	266	226	88	68	33		—
Workers involved.	22	35	38	30	7.2	10	6.6	—	—
Working days lost	298	687	658	388	49	133	190	—	
Czechoslovakia :									
Disputes	163	208	282	230	159	254	317	209	216
Workers involved.	49	172	102	64	31	50	103	37	38
Working days lost	735	2,466	1,728	753	423	499	1,256	289	239
Sweden :									
Disputes	206	189	201	180	261	193	182	140	-
Workers involved.	53	9.5	71	13	21	41	50	32	—
Working days lost	1,711	400	4,835	667	1,021	2,627	3,095	3,434	—
Norway :									
Disputes	113	96	63	73	94	82	91	93	—
Workers involved.	51	22	8.0	4.8	4.7	60	6.4	6.3	—
Working days lost	2,204	1,374	364	197	240	7.586	394	364	—

[1] Provisional data.

Industrial Disputes *(continued)*

Workers involved and working days lost (in thousands)

Country	1926	1927	1928	1929	1930	1931	1932	1933 [1]	1934 [1]
Denmark :									
Disputes	32	17	11	22	37	16	17	26	38
Workers involved.	1.1	2.9	0.5	1.0	5.3	3.7	5.8	0.5	11
Working days lost	23	119	11	41	144	246	87	18	146
Switzerland :									
Disputes	35	26	45	39	31	25	38	35	20
Workers involved.	2.7	2.1	5.5	4.7	6.4	4.7	5.1	2.7	2.8
Working days lost	-	34	98	100	266	74	159	69	33
Poland :									
Disputes	590	625	776	510	330	363	517	649	954
Workers involved.	145	237	354	222	53	109	315	347	372
Working days lost	1,423	2,483	2,788	1.072	427	637	2,134	3,844	2,366
Spain :									
Disputes	93	107	87	96	402	734	681	1,046	-
Workers involved.	22	71	70	56	247	236	269	843	-
Working days lost	247	1,312	771	313	3,745	3,843	3,589	14,441	-
United States :									
Disputes	-	734	629	903	653	894	808	1.562	1,740
Workers involved.		349	357	230	158	279	243	812	1,354
Working days lost		37,799	31,557	9.975	2,730	6,386	6,463	14,819	19,309
Canada :									
Disputes	77	74	98	90	67	88	116	125	191
Workers involved.	24	22	18	13	14	11	23	27	46
Working days lost	267	153	224	152	92	204	255	318	575
Japan :									
Disputes	495	383	393	571	900	984	870	598	
Workers involved.	67	47	43	77	80	63	53	47	-
Working days lost	122	792	323	679	1,049	961	513	-	-
India :									
Disputes	128	129	203	141	148	166	118	146	159
Workers involved.	187	132	507	532	196	203	128	165	221
Working days lost	1,097	2,020	31,647	12,166	2,262	2,408	1,922	2,169	4,776
Australia :									
Disputes	360	441	287	259	183	134	127	90	154
Workers involved.	113	201	96	105	54	38	33	30	51
Working days lost	1,310	1,714	777	4,461	1,511	246	212	112	370

[1] Provisional data.

Source : I.L.O. Year-Book, Geneva, 1933, pp. 522-524; 1934-1935, Vol. II, pp. 164-166.

APPENDIX 19

INCOME OF FARMERS DURING THE DEPRESSION

A.—Percentage Distribution of Gross Yield (Intended for Sale) of Agricultural Holdings in Various Countries in 1930-1931

a — Peasant holdings; *b* large holdings

Country	Live stock	Cereals (seeds)	Total vegetable production	Forestry and other branches
Germany *(a)*	62.2	24.5	37.8	—
„ *(b)*	41.6	41.2	58.4	—
Switzerland *(a)*	73.3	3.4	11.8	14.9
Netherlands *(a)*	92.8	—	7.2	—
Austria *(a)*	54.8	7.6	18.6	26.6
Denmark [1] *(a)*	92.8	—	6.6	0.6
„ *(b)*	73.5	—	25.5	1.0
Czechoslovakia *(a)*	60.9	21.1	38.5	0.6
„ *(b)*	47.8	25.7	52.1	0.1
Sweden *(a)*	80.6	17.1	17.1	2.4
„ *(b)*	67.5	32.2	32.5	0.3
Norway *(a)*	64.0	4.2	8.0	28.0
Finland *(a)*	80.6	—	18.1	1.3
„ *(b)*	76.3	—	23.1	0.6
Poland *(a)*	67.3	18.4	31.5	1.2
Rumania *(a)*	44.4	37.0	51.4	4.2
Hungary *(a)*	75.9	17.2	21.8	2.2
Lithuania *(a)*	63.6	20.9	32.8	3.6
Latvia *(a)*	59.5	15.4	25.1	15.4
Estonia *(a)*	64.0	12.2	16.2	19.8

[1] Average from 1927 to 1930.

Source : International Institute of Agriculture : *Farm Accountancy : Statistics for 1930-31*, pp. 228-237 and 522-527.

B.—Receipts and Working Expenses of German Agriculture

In millions of RM.

Items in the accounts	Average from 1926-27 to 1928-29	1929-30	1930-31	1931-32	1932-33	1933-34
Cash income :						
Sale of cereals	1,626	1,761	1,589	1,497	1,376	1,449
Sale of potatoes	515	361	337	363	270	324
Sale of cattle and poultry	3,686	4,149	3,491	2,625	2,132	2,478
Milk and eggs	2,063	2 129	1,955	1,741	1,634	1,886
Sugar, wine, tobacco	650	646	661	534	539	561
Total receipts[1]	9,107	9,630	8,400	7,100	6,800	7,100
Cost of production :						
Buildings (including repairs)	746	704	626	521	423	421
Machinery (including repairs)	1,029	907	747	555	568	693
Fertilisers, fuel, light, etc.	1,032	1,102	971	808	819	858
Fodder, etc.	1,672	1,362	913	888	751	743
Wages in cash[2]	1,692	1,894	1,816	1,532	1,357	1,388
Insurance (fire, hail, and cattle[3])	97	97	95	88	93	95
Taxes	710	740	650	550	530	460
Interest on borrowed capital	777	950	950	1,005	710	600
Total cost of production	7,755	7,760	6,768	5,947	5,251	5,258
Excess of receipts over cost of production	1,352	1,870	1,632	1,153	1,049	1,842

[1] Corrected data : *Wirtschaft und Statistik*, No. 16, p. 518.
[2] Including the employers' contributions to agricultural workers' insurance.
[3] Premiums paid less claims paid.

Source : Wochenbericht des Instituts für Konjunkturforschung, 1934, No. 8, 1. Beilage; *Wirtschaft und Statistik*, 1934, No. 16, p. 518.

C. —Variations in the Prices Received by and Paid by Farmers in the United States

Basis : 1929 = 100

	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
I. *Prices received by the farmers*										
General index	107	100	96	102	100	87	60	44	49	62
Cereals	131	109	107	109	100	83	52	37	52	78
Cotton	124	85	89	105	100	70	44	32	45	69
Fruit	123	98	102	125	100	116	70	59	53	71
Dairy produce	97	97	99	101	100	87	69	53	52	61
Poultry and eggs	101	98	89	94	100	79	61	51	46	55
Animals	90	95	90	97	100	86	59	40	38	44
Miscellaneous	108	123	104	95	100	94	64	49	60	—
II. *Prices paid by the farmers*										
General index	103	102	100	101	100	95	82	70	72	81
Consumers' goods	104	103	101	101	100	94	80	68	69	78
Producers' goods	100	99	99	101	100	95	83	72	73	85
III. *Wages of agricultural workers*	99	100	100	99	100	89	68	50	47	53

Source : Calculated from *Statistical Abstract of the United States*, 1935, p. 591.

D.—Income of Agricultural Holdings in Various Countries according to their Final Accounts

In gold francs per hectare

The figures in brackets indicate the number of farms for 1930-1931

	Gross yield		Working expenses		Net return [1]		Interest return [1]	
	1927-30	1930-31	1927-30	1930-31	1927-30	1930-31	1927-30	1930-31
Great Britain.								
Large holdings (151)	515.2 [2]	408.0	405.0 [2]	335.9	110.2 [2]	72.1	75.1 [2]	39.0
Germany :								
Large holdings (800)	563.2 [2]	479.2	533.5 [2]	467.6	29.7 [2]	11.7		
Peasant holdings (3,184)	592.5 [2]	528.5	553.7 [2]	502.4	38.8 [2]	26.1		
Switzerland :								
Peasant holdings (522)	1,260.6	1,249.0	1,071.8	1,006	188.7	243.0	91.3	48.0
Netherlands .								
Peasant holdings (3,613)	992.0	778.1	630.6	537.1	361.4	241.0		
Austria :								
Peasant holdings (922)	340.9	272.5	284.6	279.3	56.3	6.8	28.4	32.8
Denmark								
Large holdings (165).	768.8	589.4	657.3	591.2	111.5	1.8	76.5	36.8
Peasant holdings (629) .	1,066.5	834.9	920.2	821.3	146.3	13.6	4.0	1.5
Czechoslovakia								
Large holdings (22)		—		—	129.4	77.7	88.7	34.2
Peasant holdings (233)	—	—	—		121.1	37.8	75.4	12.3
Sweden								
Large holdings (128).	547.3	491.1	511.5	471.6	35.8	19.5	7.9	21.6
Peasant holdings (299)	526.3	533.0	468.9	482.7	57.5	50.4	13.5	6.8
Norway :								
Peasant holdings (183)	922.3	813.4	820.7	718.4	101.6	65.0	26.6	2.9
Finland								
Large holdings (983).	297.7	254.8	264.7	219.2	33.0	35.6	5.0	7.8
Peasant holdings (650) .	336.2	271.7	293.3	238.9	42.9	32.7	12.9	3.0
Poland .								
Peasant holdings (739) . .	323.8	219.0	235.8	203.5	88.0	15.6	51.1	17.2
Rumania :								
Peasant holdings (63)	280.5 [3]	144.4	193.9 [3]	109.1	86.6 [3]	35.3	32.6 [3]	11.9
Lithuania :								
Peasant holdings (80)	160.8 [2]	157.1	136.1 [2]	135.9	24.7 [2]	21.2	8.4 [2]	3.7
Latvia :								
Peasant holdings (138)	157.1	176.6	146.2	157.9	11.1	18.7	1.6	5.4
Estonia :								
Peasant holdings (300)	165.7	138.5	151.2	131.1	14.5	7.4	1,9	7.7

[1] The net return is the fraction of the gross return which can be considered as constituting the interest actually earned on the whole agricultural assets (gross return less working expenses). The income from the farm is the net return minus a fair interest on the tenant's capital. This is the return on the landlord's capital.—[2] 1928-1930.—[3] 1929-1930.

Source : International Institute of Agriculture *Farm accountancy : Statistics for 1930-31*, Rome, 1934, pp. 335-341 and 568-573

E. – Income of Agricultural Holdings in the United States

Average figures per holding

	1928	1929	1930	1931	1932	1933
Number of holdings.....	11,851	11,805	6,228	7,437	6,383	6,855
Average area (in acres).....	284	270	284	249	233	234
	In dollars					
Cash receipts :						
Crop sales	946	1,029	779	572	337	523
Sale of livestock.....	936	922	765	471	313	296
Sale of livestock products..	689	681	635	482	350	386
Miscellaneous	37	37	32	24	14	17
Total receipts...	2,608	2,669	2,211	1,549	1,014	1,222
Cost of production :						
Machines and tools	151	159	118	62	34	44
Fertilisers	67	79	78	55	39	41
Seeds	46	43	43	34	31	26
Livestock bought	238	238	172	102	87	76
Feed bought.....	262	276	276	184	118	134
Hired labour	394	399	378	304	185	220
Miscellaneous	176	191	191	167	114	139
Taxes	184	187	196	183	149	127
Interest	202	199	199	196	173	160
Total cost of production...	1,720	1,771	1,651	1,287	930	967
Receipts less cost of production (farmers' income).....	888	898	560	262	84	255
Add :						
Increase in inventory.....	244	201	—221	—304	—191	101
Farm improvements.....	126	125	92	57	29	40
Value of food produced and used on the farm.....	269	262	242	200	161	163
Total...	639	588	113	— 47	— 1	304
Total income (in cash and in kind)	1,527	1,486	673	215	83	559
For comparison :						
Labour of farmer and his family	768	772	716	608	448	470

Source : *Yearbook of Agriculture*, 1935, Washington, p. 675.

APPENDIX 20

THE AGRICULTURAL DEPRESSION

A. — Consumption of Fertilisers in Various Countries

In millions of tons

Country	Basic slag		Potassium salts		Nitrate of soda	
	1929	1933	1929	1933	1929	1933
Great Britain	346	178	205 [2]	300 [2]	77	8 [1]
Belgium	—	—	277 [2]	154 [2]	140	13
Germany	2,269	1,684	754	636	95	43
Switzerland	103	84	25 [2]	25 [2]	2	0
Netherlands	369	162	411	331 [2]	184	39
Austria	53	17	25	15 [2]	3.6	0.7
France	762	544	217	195	414	340 [1]
Italy	70	42	25	14	74	41
Czechoslovakia	178	97	34	18	95	14
Denmark	9.0	0.2	79 [2]	50 [2]	44	34
Sweden	14	8.1 [1]	104 [2]	69 [2]	43	21
Norway	10	2.9	9.5	7.8	—	—
Finland	26	9.1	25 [2]	5.2	—	—
United States	—	—	314	229	945	367 [1]
Canada	9.9	3.8	5,0	3.5	10	4
Spain	2.0	8.5	—	24	173	70
Poland	277	41	410 [3]	241 [2]	79	8
Rumania	-	-	1.4 [2]	0.2 [2]	-	—
Hungary	1,2	0	3 5 [2]	0.2	1.1	0.1
Lithuania	17	3.5	7.2 [2]	1.8 [2]	1.1	2.0
Yugoslavia	—	0.3	3.1 [2]	0.8 [2]	—	—

Country	Superphosphates of lime		Sulphate of ammonia		Synthetic nitrate fertilisers	
	1929	1933	1929	1933	1929	1933
Great Britain	509	373	165	197	5.3	—
Belgium	274	150	179	128	54	25
Germany	1 046	1,038	674	476	1,248	1,237
Switzerland	28	22	0.8	3.2	2.0	5.6
Netherlands	290	204	153	195	120	102
Austria	53	43	4.6	2.2	17	18
France	2,205	1,470	422	356 [1]	115	153 [1]
Italy	1,555	1,089	125	116	153	215
Czechoslovakia	233	121	53	38	50	42
Denmark	479	288	48	41	147	96
Sweden	196	195	17	19.2	43 [3]	—
Norway	58	47	0.2	0.1	28	30
Finland	50	50	0.3	2.2	20	18
United States	1,252	748	619	607	219	83
Canada	61	41	7.1	8.7	0.3	2.1
Spain	1,027	860	267	301	—	68
Poland	297	40	20 [3]	20	—	39
Rumania	6.0	—	—	0.2	—	—
Hungary	161	24	0.1	0.1	12	1.7 [1]
Lithuania	86	64	—	—	—	—
Yugoslavia	—	11	—	—	—	0.3

[1] 1932.—[2] Crude potassium salts.—[3] 1928.

Source : International Institute of Agriculture : *International Year Book of Agricultural Statistics*, 1930-31, pp. 568-664; 1933-34, pp. 754-760.

B. —Labour Costs in Peasant Holdings in Various Countries

Country	1928-1929			1930-1931		
	Wage earners	Family	Total	Wage earners	Family	Total
	Absolute figures in gold francs per hectare					
Germany	183.5	71.2	254.6	172.9	69.6	242.5
Switzerland	221.0	342.3	563.3	216.0	310.0	526.0
Austria	74.1	89.8	163.8	68.5	84.1	152.6
Denmark	175.8	164.3	340.1	161.9	161.5	323.5
Norway	228.8	163.5	392.3	203.8	143.2	347.0
Finland	79.7	95.0	174.7	60.9	79.7	140.6
Poland	49.1	83.5	132.6	35.9	74.5	110.4
Hungary	57.9[1]	117.7[1]	175.6[1]	49.7	112.6	162.3
	Percentages					
Germany	72.1	27.9	100	71.3	28.7	100
Switzerland	39.2	60.8	100	41.6	58.4	100
Austria	45.2	54.8	100	44.9	55.1	100
Denmark	51.8	48.2	100	50.0	50.0	100
Norway	58.3	41.7	100	58.7	41.3	100
Finland	45.6	54.4	100	43.3	56.7	100
Poland	37.0	63.0	100	32.5	67.5	100
Hungary	33.0	67.0	100	30.6	69.4	100

[1] 1929-1930.

Source: International Institute of Agriculture *Farm Accountancy*, Rome, 1934, pp 284-297.

C.—Area Sown in Crops in Various Countries in which Agriculture was Protected during the Depression

In thousands of hectares

	Wheat	Rye	Barley	Oats	Maize	Total
			Germany			
Average : 1925-29 ...	1,646	4,700	1,494	3.496	2	11,338
1930	1,781	4,711	1,519	3,440	2	11,453
1931	2,167	4,366	1,619	3,363	2	11,517
1932	2,280	4,450	1,568	3,285	2	11,585
1933	2,318	4,524	1,585	3,182	4	11,613
			France			
Average : 1925-29 ...	5,358	790	719	3,479	343	10,689
1930	5,374	747	745	3,424	337	10,627
1931	5,196	712	755	3,465	346	10,474
1932	5,434	701	720	3,387	340	10,582
1933	5,464	690	703	3,365	337	10,559
			Italy			
Average : 1925-29 ...	4,870	124	234	503	1,521	7,252
1930	4,823	122	236	511	1,516	7,208
1931	4,809	123	218	464	1,396	7,010
1932	4,931	117	210	446	1,448	7,152
1933	5,083	114	207	448	1,428	7,280
Grand total for the three countries	*1925-29* 29,279	*1930* 29,288	*1931* 29,001	*1932* 29,319	*1933* 29,452	

Source : International Institute of Agriculture : *International Year Book of Agricultural Statistics*, 1933-34, pp. 174, 178, 180, 184 and 188.

D.—World Exports of Foodstuffs during the Depression

In millions of quintals

Articles	Average 1925-1929	1930	1931	1932	1933
Wheat and flour.....	237.2	216.3	246.3	210.2	191.3
Rye and flour.....	16.7	16.3	18.8	13.8	13.1
Barley	36.3	39.7	39.4	26.8	27.5
Oats.....	15.9	17.4	15.1	12.9	9.4
Maize.....	86.8	82.2	122.4	108.3	84.1
Rice	75.0	69.2	73.5	75.1	72.8
Potatoes	22.7	19.9	24.3	18.9	9.6
Currants	2.8	2.7	2.6	2.6	2.7
Citrus fruits.....	15.2	19.5	18.3	17.2	20.5
Bananas	21.5	24.9	22.9	21.1	19.1
Wine (millions of hectolitres).....	18.3	20.3	21.4	19.9	22.5
Olive oil	1.9	2.9	2.2	2.0	2.1
Sugar.....	135.4	131.9	117.7	118.3	106.8
Cocoa	5.6	5.0	5.7	5.8	5.9
Tea	4.5	4.5	4.6	4.6	4.8
Coffee	14.6	16.1	17.4	14.2	16.4
Pepper	6.4	6.6	6.1	5.2	5.1
Peanuts.....	14.9	16.4	17.5	12.4	15.5
Soya beans	20.8	21.5	28.0	30.7	27.0

Source : International Institute of Agriculture : *International Year Book of Agricultural Statistics*, 1933-34, pp. 300-425.

APPENDIX 21

NUMBER OF EMPLOYERS, WORKERS ON THEIR OWN ACCOUNT AND OTHER WORKERS

A.—Distribution of the Gainfully Employed Population in Great Britain according to the 1931 Census

In thousands

Occupational groups	In employment			Unemployed (all groups)	Total
	Workers on their own account	Managerial staff	Operative staff		
Agriculture and fishing.	181.8	202.3	936.6	77.7	1,398.4
Industry :					
Mines, quarries, etc..	0.4	8.8	901.3	209.8	1,120.3
Bricks, pottery, glass, etc.	0.4	4.6	84.1	15.0	104.1
Chemical processes ..	0.3	7.5	37.3	4.3	49.5
Metal workers	34.6	53.3	1,222.3	329.4	1,639.6
Workers in precious metals, electricians, watchmakers, etc..	13.3	13.7	235.8	29.4	292.3
Skins and leather....	4.0	5.6	55.7	10.5	75.8
Textiles	3.0	18.5	761.7	202.5	985.7
Clothing	107.4	44.4	667.8	59.9	879.4
Food, drink and tobacco	14.4	37.7	206.5	29.9	288.6
Workers in wood, furniture, etc.	33.6	24.8	435.9	89.8	584.1
Paper, printing, etc..	6.1	20.9	275.4	24.2	326.5
Building workers (including painters and decorators)	40.4	64.6	822.7	152.3	1,079.9
Other industrial occupations	5.0	9.1	113.0	23.1	150.3
Total...	262.9	313.5	5,819.5	1,180.1	7,576.1
Transport and communications	45.1	56.8	1,532.3	196.0	1,830.2
Commerce, finance, insurance, warehouses[1], etc.	471.9	391.5	1,727.4	176.7	2,767.4
Public administration..	—	0.1	311.9	0.8	312.8
Professional occupations	105.9	50.5	663.5	20.7	840.5
Entertainments and sport	17.5	13.4	69.4	24.5	124.8
Personal services	182.4	119.9	2,133.2	193.1	2,628.5
Clerks, typists, etc.....	1.2	29.5	1,414.6	76.9	1,522.5
Other and undefined occupations	3.8	2.9	1,468.8	578.1	2,053.5
Grand total...	1,272.5	1,180.5	16,077.2	2,524.5	21,054.7

[1] Excluding clerks.

Source : Ministry of Labour : *Twenty-first Abstract of Labour Statistics of the United Kingdom* (1919-1933), London, 1934, pp. 4-14.

B.—Distribution of the Gainfully Employed Population in Germany according to the 1933 Census

In thousands

Occupational groups	In employment			Unemployed	Total
	Independent workers and employers	Members of the family assisting the employer	Workers and salaried employees		
Agriculture and fishing	2,182	4,517	2,335	309	9,343
Industry :					
Mines and quarries	1	—	473	228	702
Bricks, pottery, glass, etc.	26	2	367	210	605
Chemical products	11	1	265	86	363
Iron, steel and mechanical engineering	175	11	1,317	1,018	2,522
Precious metals, electrical engineering watchmaking, etc.	52	6	301	188	547
Skins and leather	32	3	133	66	234
Textiles	30	6	822	260	1,118
Clothing	476	31	656	314	1,477
Food, drink and tobacco	246	186	893	305	1,630
Sawmills, furniture, musical instruments, etc.	177	13	420	327	937
Paper, printing, etc.	35	5	352	143	535
Building	253	9	844	897	2,003
Other industries	2	—	221	155	378
Total	1,517	273	7,065	4,197	13,051
Transport and communications	63	6	1,273	210	1,552
Commerce, warehouses, etc.	1,193	488	1,986	712	4,379
Public administration, liberal professions, sport	348	28	2,081	244	2,701
Personal services	—	—	1,087	183	1,270
Grand total	5,303	5,312	15,827	5,855	32,296

Source : *Statistisches Jahrbuch fur das Deutsche Reich*, 1934, p. 20. The table has been arranged as far as possible on the same lines as the table for Great Britain (Appendix 21A). This explains the divergence between these totals and those of the original source, in which domestic servants are not counted among the workers and salaried employees in employment.

APPENDIX 22

Large and Medium Industrial Undertakings in Germany in 1926, 1929 and 1932

a = Medium undertakings (employing from 5 to 50 workers).—*b* = Large undertakings (employing more than 50 workers).

Branches of industry	Number of undertakings						Staff in thousands					
	1926		1929		1932		1926		1929		1932	
	a	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*	*a*	*b*
Mines.....	621	938	430	844	421	640	12	665	8	699	8	435
Quarrying ...	12,283	2,443	13,205	2,749	8,288	1,309	204	348	228	404	129	176
Metal works .	1,164	1,053	1,129	1,134	983	762	22	305	22	341	17	168
Metal articles, machines, electrical engineering, etc.	31,743	6,052	33,650	6,753	21,845	4,097	421	1,362	452	1,697	276	848
Chemicals ...	2,992	955	2,975	997	2,559	783	47	234	49	273	40	184
Textiles	7,776	3,982	7,867	4,276	5,760	3,059	133	801	138	931	99	617
Paper and printing	8,314	2,070	8,606	2,276	6,962	1,658	20	335	135	391	106	275
Leather, rubber and asbestos	2,193	441	2,157	471	1,426	332	32	97	31	113	20	79
Wood [1]	24,213	2,106	25,342	2,357	13,293	1,083	297	233	315	279	159	121
Foodstuffs ...	20,570	2,851	24,302	3,139	21,117	2,656	248	436	278	498	234	412
Clothing	17,895	1,813	18,741	2,018	12,912	1,349	211	243	224	300	155	207
Building	23,589	2,509	29,951	3,880	17,433	965	311	294	411	483	201	98
Water, gas and electricity ..	2,143	628	2,385	700	2,419	643	35	104	38	113	36	92
Total...	155,496	27,841	170,740	31,594	115,418	19,335	1,993	5,459	2,329	6,522	1,479	3,711

[1] Including musical intruments, etc.

Source : Jahresberichte der Gewerbeaufsichtsbeamte und Bergbehorden fur das Deutsche Reich, 1926, Berlin, 1927, pp. 116-149; *Statistisches Jahrbuch fur das Deutsche Reich*, 1931, p. 92; 1934, p. 112.

APPENDIX 23

Index Numbers of Turnover of Retail Trade in Germany, during the Depression

(1929 = 100)

	1928	1929	1930	1931	1932	1933	1934
Retail trade as a whole :							
Total...	99.6	100	91.6	80.0	62.3	59.5	65.9
Foodstuffs	96.9	100	94.6	82.9	68 5	65.3	68.7
Ready-made clothing...	102.7	100	90.3	76.1	59.2	57.9	67.6
Furniture and utensils.	96.2	100	86.8	78.4	54.8	52.8	68.9
Department stores :							
Total...	100.5	100	93.7	80.0	65.6	53.6	55.0
Foodstuffs	82.2	100	101.3	93.8	78 1	60.9	55.1
Ready-made clothing..	102.4	100	92.1	77.8	63.0	52.3	55.2
Furniture and utensils.	96.4	100	94.4	79.5	63.8	57.5	65.6
Co-operative Societies [1] *:*							
Zentralverband.....	89.2	100	98.8	85.5	62.9	—	—
Reichsverband.....	87.9	100	98.8	90.1	70.1	—	—
Specialised undertakings :							
Foodstuffs	95.8	100	93.2	82.8	65.0	62.8	68.0
Men's and boys' clothing	104.9	100	85.8	70.7	55.2	55.6	72.0
Women's and girls' clothing.....	107.4	100	89.3	75.1	58.1	—	—
Furniture	88.9	100	81.0	78.2	51 5	51.5	70.6

[1] *Reichsverband* = Union of Christian Co-operative Societies; *Zentralverband* = Union of Independent Co-operative Societies (connected with the Socialist movement).

Sources : Institut fur Konjunkturforschung : *Konjunkturstatistisches Handbuch*, 1933, pp. 64-68; *Vierteljahrshefte zur Konjunkturforschung*, 10. Jahrgang, Heft 1, Teil 13, p. 7.

APPENDIX 24

Public Finances of Various Countries during the Depression

In millions of the national currency

Country	Currency	1928	1929	1930	1931	1932	1933	1934
Germany (Reich) :	RM.							
Receipts		6,994	7,202	7,404	7,532	6.442	5,592	5,670
Expenditure .		7,155	8,356	8,043	8,163	6,625	5,735	5,570
Balance ..		— 161	—1,154	— 637	— 631	— 183	— 143	+ 100
Great Britain :	£							
Receipts		836.4	815.0	857.8	851.5	827.0	809.4	791.2
Expenditure .		818 0	829.5	881 0	851.1	859.3	778.2	790.4
Balance		+ 18.4	— 14.5	— 23.2	+ 0.4	— 32.3	+ 31.2	+ 0.8
France :	Fr.							
Receipts ..		47,294	47,780	50,989	47,705	43,438	45,646	48,281
Expenditure .		44,059	47,711	53,597	53 948	53,468	50,487	50,162
Balance...		+ 3,235	+ 69	—2,608	—6,243	—10,030	—4,841	—1,881
Italy :	Lire							
Receipts		20,099	19,897	20,084	19,033	17,966	17,790	17,662
Expenditure		19,717	19,746	20,980	23,308	21,904	24,610	22,276
Balance..		+ 382	+ 151	— 896	—4,275	— 3,938	—6,820	—4,614
Belgium :	Fr.							
Receipts		12,448	13,860	11,690	11,084	10,687	11,282	10,554
Expenditure .		10,747	12,259	12,695	12,074	11,689	11,627	10,384
Balance		+ 1,701	+ 1,601	—1,005	— 990	— 1,002	— 345	+ 170
Netherlands :	Flor.							
Receipts		717	752	705	696	820	541	486
Expenditure		838	811	721	842	1,001	642	804
Balance. .		— 121	— 59	— 16	— 146	— 181	— 101	— 318
Czechoslovakia :	Kč.							
Receipts		11,303	10,540	9,702	10,291	10,008	8,634	7,632
Expenditure		11,019	10,275	9,928	12,260	10,258	8,632	7,631
Balance		+ 284	+ 265	— 226	— 1,969	— 250	+ 2	+ 1
Switzerland :	Fr.							
Receipts		384	397	436	431	420	371	422
Expenditure		360	373	429	429	444	439	431
Balance .		+ 24	+ 24	+ 7	+ 2	— 24	— 68	— 9
Sweden :	Kr.							
Receipts		788	818	840	879	1,068	1,010[1]	1,052[1]
Expenditure . ..		792	811	818	894	1,067	1,010[1]	1,052[1]
Balance ..		— 4	+ 7	+ 22	— 17	+ 1	—	—
Norway :	Kr.							
Receipts		389	396	365	361[1]	371[1]	367[1]	378[1]
Expenditure . .		387	376	374	361[1]	371[1]	367[1]	378[1]
Balance...		+ 2	+ 20	— 9	—	—	—	—

[1] Draft estimates.

Public Finances of Various Countries during the Depression *(continued)*

In millions of the national currency

Country	Currency	1928	1929	1930	1931	1932	1933	1934
Poland .	Zloty							
Receipts .		3,009	3,031	2,748	2,262	2,002	1,869	2,136
Expenditure		2,808	3,010	2,810	2,468	2,244	2,206	2,185
Balance.		+ 201	+ 21	— 62	— 206	— 242	— 337	— 49
Rumania:	Lei							
Receipts		32,768	36,018	31,155	27,643	17,848	18,364	20,452[1]
Expenditure		32,224	34,607	31,579	29,797	18,949	20,361	20,452[1]
Balance ..		+ 544	+ 1,411	— 424	— 2,154	— 1,101	— 1,997	—
Yugoslavia	Dinar							
Receipts		13,796	15,963	13,313	10,965	11,323[1]	10,438[1]	10,171[1]
Expenditure		11,147	11,817	12,470	11,530	11,323[1]	10,438[1]	10,171[1]
Balance		+ 2,649	+ 4,146	+ 843	— 565	—	—	—
Hungary :	Pengo							
Receipts .		1,483	1,480	1,580	1,330	1,183	1,097	1,084
Expenditure		1,473	1,478	1,628	1,338	1,206	1,173	1,151
Balance...		+ 10	+ 2	— 48	— 8	— 23	— 76	— 67
Bulgaria :	Leva							
Receipts . .		8,229	10,205	6,436	5,623	4,894	5,221[1]	5 650[1]
Expenditure . .		7,726	10,449	8,188	6,568	5,947	5,221[1]	5,650[1]
Balance		+ 503	— 244	— 1,752	— 945	— 1,053	—	—
United States :	Dollar							
Receipts ...		4,033	4,178	3,317	2,121	2,238	3,116	3,975
Expenditure .		3,849	3,994	4,220	5,007	5,307	7,105	4,487
Balance		+ 184	+ 184	— 903	— 2,886	— 3,069	— 3,989	— 512
Canada :	Dollar							
Receipts .		628	630	544	516	311	324	
Expenditure		554	576	625	642	350	348	—
Balance...		+ 74	+ 54	— 81	— 126	— 39	— 24	—
Japan :	Yen							
Receipts		2,006	1,826	1,597	1,531	2,045	2,332	2,112[1]
Expenditure		1,815	1,736	1,558	1,477	1,950	2.255	2,112[1]
Balance...		+ 191	+ 90	+ 39	+ 54	+ 95	+ 77	—
Argentina :	Pap. Pesos							
Receipts .. .		700	718	637	763	833	838[1]	796[1]
Expenditure . .		675	747	1,077	886	833	849[1]	796[1]
Balance...		+ 25	— 29	— 440	— 123	—	— 11	—
Union of South Africa:	£							
Receipts		31	30	29	27	29	36	37
Expenditure ...		29	30	30	28	27	34	34
Balance...		+ 2	—	— 1	— 1	— 2	+ 2	+ 3

[1] Draft estimates.

Source : Statistisches Jahrbuch fur das Deutsche Reich, 1934, pp. 226-230.

APPENDIX 25

Savings in Various Countries

Country		1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
Number of accounts at the end of the year in millions											
Germany		3,883	6,376	9,164	12,497	16,222	17,977	19,941	21,585	—	—
Great Britain		20,041	20,272	20,525	—	—	—	—	—	—	—
France		16,297	16,335	16,791	17,402	17,922	18,585	18,934	19,559	—	—
Italy		11,807	12,153	11,326	11,711	12,336	12,614	13,591	15,169	—	—
Spain		2,122	2,452	2,645	2,920	3,092	3,566	3,801	—	—	—
Belgium		4,160	4,279	4,438	4,595	4,775	4,983	—	—	—	—
Netherlands		3,123	3,209	3,323	3,421	3,547	3,692	3,822	—	—	—
Sweden		3,237	3,380	3,560	3,666	3,911	4,201	4,493	—	—	—
Norway		1,961	1,928	2,027	2,053	2,077	2,084	2,136	—	—	—
Denmark		1,701	1,762	1,799	1,834	1,878	1,933	1,987	2,035	—	—
Czechoslovakia		3,183	3,335	3,481	3,686	3,839	—	—	—	—	—
Austria		4,533	4,431	4,516	2,240	2,274	2,336	2,302	—	—	—
United States		7,152	7,525	8,040	8,668	8,904	9,206	10,034	10,040	9,760	9,803
Japan		36,368	29,407	30,632	32,749	34,789	36,388	36,719	39,066	—	—
Australia		3,992	4,183	4,462	4,686	4,935	—	—	—	—	—
Amount on deposit at the end of the year in millions of the national currency											
Germany	Mk	1,703	3,182	4,839	7,205	9,314	10,752	10,123	10,195	11,110	12,750
Great Britain	£	369	366	366	370	365	359	367	385	—	—
France	Fr.	13,767	15,655	21,281	27,047	31,972	38,603	50,861	57,837	59,498	61,040
Italy	Lire	23,384	23,633	24,045	26,504	28,233	30,404	32,857	35,759	38,926	40,005
Spain	Pes	1,845	1,976	2,318	2,550	3,020	3,412	3,576	—	—	—
Belgium	Fr	2,569	2,760	3,516	4,267	5,548	7,768	9,249	9,864	10,054	—
Netherlands	Fl	946	987	1,042	1,118	1,188	1,285	1,345	1,378	—	—
Sweden	Kr.	2,654	2,811	2,912	3,016	3,168	3,300	3,433	3,593	3,647	—
Norway	Kr.	2,522	2,506	2,404	2,331	2,268	2,216	2,132	—	—	—
Denmark	Kr.	1,872	1,971	1,989	2,041	2,120	2,202	2,192	2,185	2,203	2,181
Czechoslovakia	Kč	12,489	13,772	15,497	17,030	18,033	19,656	21,742	21,904	20,687	20,614
Austria	Sch.	561	801	1,045	1,325	1,503	1,741	1,586	1,643	1,647	1,702
United States	$	10,639	10,950	11,130	11,643	11,875	12,077	12,544	12,735	12,995	13,342
Japan	Yen	1,540	1,162	1,525	1,743	2,058	2,349	2,616	2,694	2,798	2,950
Australia	£	183	195	205	216	220	197	194	197	203	213

Germany : Public and private savings banks.—Great Britain : Post Office and other savings banks.—France : Private (ordinary) savings banks and National Savings Bank.—Italy : Postal and other savings banks.—Spain : Postal and other savings banks.—Belgium : General Savings and Pensions Bank and municipal banks.—Netherlands : Post Office and private savings banks and Raiffeisen Banks.—Sweden : Post Office and private savings banks.—Norway : Savings banks.—Denmark : Principal savings banks.—Czechoslovakia : Savings banks.—Austria : Post Office and other savings banks.—United States : Mutual savings banks, the figures refer to 30 June.—Japan : Post Office savings banks.—Australia : Savings banks

Sources : The table is compiled from the survey given in the *Annuaire statistique 1933 de la Statistique générale de la France*, pp. 480*-481*. The author has kept the series selected in that publication, but corrected the figures in the lower part of the table in accordance with the *Statistical Year Book of the League of Nations*, 1934-35, pp. 266-270, and supplemented the figures in the upper part of the table from the latest publications of the countries in question.

APPENDIX 26

PUBLIC INDEBTEDNESS DURING THE DEPRESSION

A.—Public Debt

In millions of the national currency unit

a = Internal debt.—*b* = Foreign debt.

Country		Monetary unit	1927	1928	1929	1930	1931	1932	1933	1934
Germany	*a*	RM.	7,140	6,989	8,073	9,521	8,784	8,918	9,290	10,347
	b[2]	»	932	902	877	854	3,306	3,220	3,042	2,060
United Kingdom	*a*	£	6,551	6,536	6,536	6,522	6,516	6,557	6,799	6,994
	b	»	1,101	1,095	1,085	1,074	1,067	1,091	1,060	1,037
France[3]	*a*	Fr.	290,354	298,587	288,665	279,873	283,040	284,315	289,478	—
	b	»	178,000	181,000	181,400	200,300	197,500	196,800	—	—
Italy	*a*	Lire	83,675	86,446	87,134	88,102	91,442	95,572	97,215	102,622
	b[4]	»	1,765	1,841	1,808	1,774	1,736	1,696	1,653	1,608
Belgium	*a*	Fr.	27,452	27,045	25,215	24,637	25,976	27,333	28,956	30,178
	b	»	28,740	28,322	27,763	27,688	26,766	25,629	26,896	26,714
Netherlands	*a*	Florin	2,990	2,824	2,727	2,683	2,867	3,092	3,371	—
Sweden[2]	*a*	Krona	1,813	1,826	1,835	1,801	1,846	2,155	2,359	2,349
Norway	*a*	Krone	863	823	785	783	761	783	827	810
	b	»	705	811	794	782	758	743	736	717
Denmark	*a*	Krone	634	626	651	641	586	574	595	664
	b	»	529	546	722	718	712	691	666	670
Finland	*a*	Markka	512	402	409	409	473	733	804	- -
	b	»	2,316	3,069	3,374	3,392	5,723	5,490	3,950	-
Poland[1]	*a*	Zloty	294	335	357	421	440	449	532	-
	b	»	3,862	3,810	3,691	3,993	3,988	4,593	4,524	- -
Czechoslovakia[8]	*a*	Koruna	22,692	24,078	27,363	27,012	28,377	28,420	30,347	
	b	»	5,083	4,249	5,307	6,312	6,277	7,017	6,978	-
Bulgaria	*a*	Lev	4,885	5,212	4,905	5,369	6,168	6,288	6,888	7,255
	b[6]	»	—	—	—	17,230	17,108	16,404	16,154	14,815
United States	*a*	$	18,510	17,604	16,931	16,185	16,802	19,487	22,539	27,053
Canada	*a*	C. Dollar	2,232	2,186	2,166	2,122	2,091	2,326	2,360	2,435
	b	»	494	491	481	423	519	505	637	706
Australia[7]	*a*	£	299	288	323	527	557	586	607	629
	b	»	169	206	219	574	599	602	597	593
New Zealand	*a*	£	—	126	131	117	117	118	118	139
	b	»	—	137	144	151	159	164	164	164
Union of South Africa	*a*	£	84	87	94	94	96	104	107	109
	b	»	148	151	151	156	161	160	166	165

B.—Interest on the Public Debt

In millions of the national currency unit

a = Internal debt.—*b* = Foreign debt.

Country		Monetary unit	1927	1928	1929	1930	1931	1932	1933	1934
Germany.....	*a* + *b*	Mk.	94	105	158	104	248	247	253	—
United Kingdom	*a* + *b*	£	305	313	310	305	292	298	308	216
France[1] [3] . .	*a* + *b*	Fr.	23,148	22,908	22,304	22,654	23,041	23,660	23,738	—
Italy ..	*a* + *b*	Lire	4,751	4,675	4,421	3,792	4,603	4,781	5,193	5,053
Belgium[4] ...	*a* + *b*	Fr.	3,257	3,200	3,415	2,966	2,848	2,769	2,807	—
Netherlands .	*a*	Gulden	133	122	113	100	95	109	104	82
Sweden . .	*a*	Krona	83	87	87	87	82	81	92	99
Norway ..	*a* + *b*	Krone	90	81	84		84	83	90	81
Denmark .. .	*a* + *b*	Krone	53	52	63	—	61	63	61	77
Finland .	*a* + *b*	Markka	509	538	476	216	238	420	390	301
Poland[5]	*a* + *b*	Zloty	—	82	125	126	166	167	123	111
Czechoslovakia[8]	*a* + *b*	Koruna	1,791	1,806	1,682	1,800	1,594	1,549	1,578	1,654
Bulgaria .	*a* + *b*	Lev	980	1,246	1,259	1,496	979	950	1,027	958
United States.	*a*	$	787	732	678	659	611	599	689	757
Canada ...	*a* + *b*	C. Dollar	133	129	126	121	121	134	135	140
Australia[7] ..	*a* + *b*[1]	£	23	24	20	22	58	58	52	50
New Zealand .	*a* + *b*	£	-	8	9	--	12	12	12	12
Union of South Africa	*a* + *b*	£	-	10	10	10	11	10	10	11

For Germany, United Kingdom, Bulgaria, Canada, New Zealand, Denmark and the Union of South Africa : year ending 31 March.—For Belgium, the Netherlands, Finland and Czechoslovakia : the current year.—For Italy, Sweden, Norway, the United States and Australia : the year ending 30 June.

[1] Interest and redemption.—[2] Foreign debt calculated at parity until March 1933; from that date the debts in dollars, sterling and Swedish krone were calculated at the rate of exchange.—[3] Until 1930 : year ending 31 December: after 1930 : year ending 31 March. The service of the debt includes also pensions. From *Annuaire statistique de la France*, 1933, Paris, 1934, p. 206*.—[4] Not including the war debt (the special fund).—[5] For the years following 1931 : year ending 31st March.— Not including reparations debts.—[7] From 1930 onwards the debt includes the indebtedness of States which was taken over by the Commonwealth.—[8] The service of the debt includes the service of the debts of public undertakings.

Sources : League of Nations : *Statistical Year Book*, 1929, pp. 194-195; 1932-33, pp. 206-211; 1933-34, pp. 265-273; 1934-35, pp. 283-291.

APPENDIX 27

Fluctuations in the Volume of Note Circulation in Certain Countries

For the index numbers : 1928 = 100

	End of						
	1928	1929	1930	1931	1932	1933	1934
Germany							
Quantity of notes in circulation (in millions of RM.)	5,460	5,435	5,212	5,193	3,968	4,031	4,281
Index number of the quantity of notes	100	99.5	95.5	95.1	72 7	73.8	78.4
Index number of the real value of the notes	100	99.7	102.4	112.5	98.0	102 2	104.4
For comparison Index of economic activity	100	100.7	93.6	84.3	77.0	80.8	90.5
Great Britain							
Quantity of notes in circulation (in millions of £)	378.3	369.8	368.8	364.2	371.2	392.0	405.2
Index number of the quantity of notes	100	97 8	97.5	96.3	98.1	103.6	107.1
Index number of the real value of the notes	100	99.7	108.1	118.2	123.2	132.5	134.5
For comparison : Index of economic activity	100	103.0	94.0	94.4	94.2	96.7	102.4
France							
Quantity of notes in circulation (in millions of francs)	63,916	68,571	76,436	85,725	85,028	82,613	83.412
Index number of the quantity of notes	100	107.3	119.6	134.1	133.3	129.3	130.5
Index number of the real value of the notes	100	105.0	120.8	143.1	158.9	159.6	165 4
For comparison Index of economic activity	100	104.7	105.1	98.8	87.8	92.2	89.0
Italy							
Quantity of notes in circulation (in millions of lire)	17,295	16,774	15,680	14,295	13,672	13,243	13,115
Index number of the quantity of notes	100	97.0	90.7	82.7	79.1	76.6	76.0
Index number of the real value of the notes	100	98.1	98.8	101.2	102.5	106.1	109.4
For comparison Index of economic activity	100	104.6	100.2	92.4	86.5	90.3	94.2
Belgium							
Quantity of notes in circulation (in millions of francs)	11,608	13,425	16,419	18,270	18,135	17,093	17,650
Index number of the quantity of notes	100	115.7	141.5	157.4	156.2	147.3	152.1
Index number of the real value of the notes	100	111.4	142.2	182.1	205.5	200.7	217.0
For comparison Index of economic activity	100	100.6	94 9	91.4	85.0	86.2	85.4
United States							
Quantity of notes in circulation (in millions of dollars)	1,973	1,865	4,890	5,647	5,675	5,806	5,536
Index number of the quantity of notes	100	97.8	98.3	113.6	114.1	116.8	111.3
Index number of the real value of the notes	100	98.5	106.2	139.9	156.9	160.4	140.5
For comparison Index of economic activity	100	103.6	93.3	86.5	78.9	84.3	85.6

The index number of the *real value* of the notes in circulation is calculated by multiplying the index of the *quantity* of notes by the index of the *average* purchasing power of the monetary unit.

This latter index is calculated by means of the formula $\frac{200}{J + i}$, in which J is the index of wholesale prices and i the cost-of-living index.

The index of economic activity is calculated by means of the formula $\frac{100 + P}{2}$, where P is the index of industrial production. This formula is based on the assumption that half the transactions vary directly with the volume of industrial production while the others remain unchanged. This formula intentionally underestimates the contraction in economic activity during the depression. There is therefore a margin for the reduction in the rapidity of circulation.

The difference between the index of the real value of the notes in circulation and the index of economic activity suggests that a fraction of the notes was withdrawn from circulation and hoarded either within the country or abroad.

APPENDIX 28

Distribution of Gains and Losses of Joint Stock Companies in Germany by Branches of Economic Activity

Branches of economic activity	Year ending 30 June					
	1930-31		1931-32		1932-33	
	Gains	Losses	Gains	Losses	Gains	Losses
	In millions of RM.					
Industries producing raw materials	211	80	74	353	82	152
Manufacturing industries	360	297	180	718	179	463
Water, gas and electricity	141	4	142	5	141	16
Commerce	33	53	25	82	20	39
Banks	127	82	59	774	54	128
Holding companies	77	4	30	130	30	27
Insurance	34	7	33	6	34	6
Transport	54	7	17	354	15	235
Miscellaneous	16	16	8	43	3	28
Total	1,053	551	567	2,465	558	1,094
Without banks, holding companies and insurance	815	457	446	1,555	440	934
	As percentage of the capital of the companies					
Industries producing raw materials	3.84	1.47	1.66	7.90	1.98	3.69
Manufacturing industries	4.54	3.74	2.43	9.70	2.64	6.82
Water, gas and electricity	5.98	0.16	4.92	0.18	4.84	0.55
Banks	6.06	3.92	2.21	29.05	2.72	6.46
Holding companies	4.99	0.29	2.17	9.49	2.43	2.18
Insurance	10.51	2.21	10.18	1.95	10.36	1.87
Transport	2.73	0.34	0.89	18.03	0.88	14.04
Miscellaneous	3.94	4.01	2.13	11.96	1.05	8.48
Commerce	4.28	6.93	3.80	12.38	3.18	6.28
Total	4.60	2.41	2.57	11.11	2.79	5.47
Without banks, holding companies and insurance	4.30	2.41	2.51	8.77	2.67	5.67

For the year 1931-32, the statistics given are exactly comparable with those for 1932-33. The figures for 1930-31 refer to a slightly larger number of companies.

Source : Statistisches Jahrbuch für das Deutsche Reich, 1932, p. 361; 1934, pp. 371-373.

APPENDIX 29

Number of Bankruptcies in Various Countries

Monthly averages

	1927	1928	1929	1930	1931	1932	1933	1934
Germany	475	665	821	945	1,133	717	326	226
Great Britain	381	365	345	369	389	415	367	326
France	689	684	726	756	906	1,170	1,147	1,254
Italy	895	970	1,010	1,134	1,483	1,684	1,431	1,170
Belgium	125	124	111	144	213	288	309	305
Netherlands	293	263	227	255	284	378	382	387
Sweden	227	213	219	207	238	299	262	176
Norway	108	85	69	60	52	63	49	40
Denmark	57	47	35	32	39	51	30	23
Finland	29	24	43	61	90	67	47	—
Poland	17	24	43	69	63	46	26	—
Rumania	26	28	35	48	43	23	8	—
Czechoslovakia	42	43	54	74	86	118	130	105
Austria	52	49	48	58	68	91	80	59
Switzerland	56	52	52	52	53	75	72	82
Yugoslavia	88	76	89	51	45	61	23	20
Hungary	29	33	37	40	32	21	10	7
Bulgaria	—	8	9	19	17	6	4	—
United States	1,929	1,987	1,992	2,196	2,357	2,652	1,692	1,015
Canada	153	170	181	200	185	202	170	—
Netherlands Indies	60	58	70	94	120	132	104	
Union of South Africa	109	116	141	214	215	208	105	—
New Zealand	72	85	72	86	98	75	50	34

Source : League of Nations : *Monthly Bulletin of Statistics*, 1935, No. 2, p. 5