

UNIVERSAL
LIBRARY

OU_152418

UNIVERSAL
LIBRARY

OUP-532-7-7-66-10,000

OSMANIA UNIVERSITY LIBRARY

Call No. 330.9/P27I Accession No. 29307

Author Patterson, Ernest Minor.

Title An introduction to world
economics. 1947.

This book should be returned on or before the date
last marked below.

An Introduction to
WORLD ECONOMICS



THE MACMILLAN COMPANY
NEW YORK · BOSTON · CHICAGO · DALLAS
ATLANTA · SAN FRANCISCO

MACMILLAN AND CO., LIMITED
LONDON · BOMBAY · CALCUTTA · MADRAS
MELBOURNE

THE MACMILLAN COMPANY
OF CANADA, LIMITED
TORONTO

An Introduction to
WORLD ECONOMICS

ERNEST MINOR PATTERSON, PH.D.

Professor of Economics, University of Pennsylvania

THE MACMILLAN COMPANY · NEW YORK

1947

CHECKED 1956

COPYRIGHT, 1947, BY THE MACMILLAN COMPANY

All rights reserved — no part of this book may be reproduced in any form without permission in writing from the publisher, except by a reviewer who wishes to quote brief passages in connection with a review written for inclusion in magazine or newspaper.

PRINTED IN THE UNITED STATES OF AMERICA

To
E. R. P.
and
G. F. P.

PREFACE

Most broad studies of international or world affairs have been written by historians and political scientists. Economists have surveyed international trade or foreign exchange or foreign investments or other special aspects of the larger field. Occasional volumes have been designated as "international economics," but the treatment has not been so comprehensive as those words suggest. It is believed by the writer that a more inclusive analysis will be helpful.

Whether it should be called "world economics" or "international economics" may be debatable, but the former seems the better. "International" connotes the existence of separate nations, each with some degree of sovereignty and independence. The United Nations Organization is "based on the principle of the sovereign equality of all its members" and, at least by inference, on their separateness. Most of what we call "current problems" in the field arise because of strains in the relations between nations.

On the other hand, sovereignty is de facto highly qualified, no matter what it may be de jure. In size of territory and of populations, in resources, in military and political power, equality does not exist. By every agreement into which a nation enters, its sovereignty is qualified, even though only in specific ways and for a limited time. If sovereignty refers to some exclusive right of a state within its own national boundaries, this right is being more and more challenged, since so many actions that are nominally domestic or internal are apt to affect relations with other nations.

Accordingly, this volume undertakes to survey the world as a vast economic area by examining its population and resources and the business relations between its parts. Much of the data is available only on a national basis, and many of the strains are national. Nevertheless, we are feeling our way toward a reduction in the significance of national boundary lines. As to how far and how rapidly this movement will proceed, no prediction is ventured. It may well be that another world conflict will come before a world government or a world economy, or even an appreciable start toward them, can

be achieved. In the meantime, there is a slowly growing awareness of our "one world." To say that this world is an interdependent whole is platitudinous, but perhaps only by the reiteration of platitudes does their significance spread and affect economic and political behavior.

This is not a volume on "current problems." Of its eight parts, only the last emphasizes recent developments, since the purpose throughout is not to discuss immediate issues so much as to furnish background. The concluding chapters in Part Eight present with a minimum of detail some of the issues now before the world but largely as illustrations of the gradual trend toward a world economy.

Order of treatment is debatable and is apt to be either a repetition of the traditional order or an expression of the bias or prejudice of the writer. In this volume both appear. Two of the factors of production — human beings and natural resources — are considered in Part One and Part Two, and their relations to each other in Part Three. With the dependence of each part of the world on all other parts thus shown, Part Four emphasizes the interdependence as revealed by the balances of international payments. This leads to the conclusion that only through freer trade and service transactions and capital movements does it seem possible to maintain or to raise levels of living. Part Five considers trade and Part Six Capital Movements, with Part Seven analyzing Monetary and Financial Mechanisms that are used or abused in world economic relations. As already observed, Part Eight deals with several immediate issues. It is expected that criticisms will be directed at this order of treatment or at least some parts of it.

In presenting particular topics, the choice has been in favor of giving a certain amount of basic information as a preliminary to a statement of theory. Economic and political organizations are always changing, and the present era is one of drastic upheaval. Our world today is vastly different from that of even ten years ago, to say nothing of the nineteenth century. Generalizations appropriate only a short time ago need to be reconsidered and adapted to the world of 1946 and 1947. Moreover, this adaptation is going on and will continue. Changes in the world about us are compelling us to "change our mental furniture," as was urged a few years ago by the late Ramsay MacDonald. That some of our attempts will prove faulty is to be expected. I have not intended to be dogmatic in any of the views presented, and stand ready to alter them as I find them inaccurate.

There are two features about the treatment that should be explained. First, there is no assumption that the reader remembers thoroughly and exactly his introductory work in economics. All too often he does not, and those concepts and "principles" that are involved are stated or restated in an elementary way. It has seemed better to err in this direction rather than to assume too much. Second, an occasional repetition is used where it has seemed necessary for emphasis. These faults, if they be such, are deliberate, and with the purpose of broadening the group who can read the volume with understanding.

After many though not all of the chapters selected references are given. The choice has not always been easy, since the volume of valuable literature is enormous, and it probably reflects the author's sympathies and perhaps his prejudices. For the most part the metric system has been used. It is the system of most countries, and is generally found in works of reference. In most instances relative rather than absolute areas, weights, etc. are important.

Thanks are due to numerous writers and publishers for permission to reproduce charts, diagrams, and maps. The list is long, and specific acknowledgment is recorded in every case.

ERNEST MINOR PATTERSON

TABLE OF CONTENTS

Part One: Population

CHAPTER

1.	How Many People Are There in the World?	3
2.	Migration	26
3.	The Distribution of Population	42
4.	Population Theories and Population Policies	59

Part Two: Natural Resources

5.	Climate	75
6.	Land and Power	89
7.	Food	106
8.	Raw Materials	117

Part Three: The Relation of Resources to People

9.	How People Live	137
10.	More About How People Live	155
11.	The Relation of Resources to People	173
12.	Are World Resources Sufficient for World Population?	186

Part Four: International and Interregional Accounts

13.	The Balance of International Payments	209
14.	Balance of Payments of the United States, of Europe, and of Latin America	220
15.	Theory of the Balance of Payments	236

Part Five: World Trade

16.	Amount and Importance of International Trade	251
17.	Some Influences Affecting World Trade	266
18.	Past and Possible Future of World Trade	277
19.	Theories of Foreign Trade	292
20.	Theories of Foreign Trade (<i>Continued</i>)	303
21.	Controlling Foreign Trade	312
22.	Economic Protectionism: Pro and Con	328
23.	Economic Protectionism: Pro and Con (<i>Continued</i>)	339

CHAPTER

24. Commercial Agreements and Growing Difficulties	352
25. Regional and Other Special Agreements	370
<i>Part Six: Capital Movements and Organization</i>	
26. Amount of Foreign Investments	383
27. The Nature of Capital Movements	397
28. The United States and Foreign Investments	413
29. International Cartels	430
<i>Part Seven: Financial Mechanisms</i>	
30. Money and Monetary Systems	449
31. Foreign Exchange	465
32. Monetary Experiences after the First World War	480
33. Monetary Developments after 1930	498
34. Gold and the Gold Standard	517
<i>Part Eight: Current World Conditions</i>	
35. Destruction or Dislocation?	537
36. First Steps Towards World Organization	559
37. The International Monetary Fund and the International Bank for Reconstruction and Development	580
38. Food and Raw Materials	600
39. World Trade in Postwar Years	616
40. Concluding Observations	628
Appendix	
The Potsdam Declaration on Reparations from Germany	647
Figures I-14 (see list of Illustrations)	649
Tables I-11 (see list of Tables)	663
Index	673

ILLUSTRATIONS

FIGURE

1. Distribution of world population, about 1925	<i>facing</i>	4
2. Births per 1,000 population, 1929-1938		7
3. Deaths per 1,000 population, 1929-1938		9
4. Net reproduction rates for Europe and the U.S.S.R., about 1930-35		16
5. Age pyramids for India, 1931, and for England and Wales, 1841 and 1931		19
6. Trend of population in the United States by broad age classes, 1900-1980		22
7. Age group pyramids for the United States, 1930, and estimated for 1980		23
8. World areas of arable agriculture		45
9. European index of agricultural productivity		80
10. Index of agricultural productivity in the United States		81
11. World distribution of agricultural productivity		82
12. World distribution of energy on the basis of climate		87
13. Rubber-producing areas and sources of rubber shipments in 1938		126
14. United States crude rubber stocks and prices, 1929-1939		128
15. Sources of imported steel-making materials		131
16. Sources of materials used in making a telephone		132
17. Materials essential to the production of a motor vehicle		133
18. World income map		150
19. Income distribution in the United States, 1935-36		156
20. Relation between income and weekly per capita expenditure for food by families in the United States, 1935-36		161
21. Income related to consumer purchases in the United States of various kinds of food, 1935-36		162
22. Cumulative net movements of gold and of capital funds into, and cumulative excess of merchandise exports from, the United States, 1935-39		226
23. World supply and use of dollars. Dollars supplied by the United States according to main categories. Dollars used by foreign countries according to main categories		246
24. Indices of economic activity and international trade		268
25. The system of multilateral trade		282

FIGURE

26. Countries on the gold standard, 1921-1938	483
27. The contracting spiral of world trade	501
28. Wholesale price changes in the United States since 1800	520
29. Production of a South African gold mine	524
30. Gold production and the price of gold, 1890-1940	525
31. Movements of non-German populations in Europe (1942)	543
32. Quarterly movement of the value of foreign trade, 1939-1944	548
33. Wholesale price movements, 1914-1944	550
34. Technical progress in travel time	556
35. Organization of the United Nations	560
36. International Monetary Fund: resources	583
37. International Bank for Reconstruction and Development: resources and their use	588
38. Changing composition of United States foreign trade, 1851-1940	596
39. Foreign trade of the United States: prewar, war, and postwar	597
40. Foreign trade of the United States and national income	598
41. Relief and rehabilitation requirements	604
42. Displaced persons in Europe	605
<i>Appendix</i>	
1. Age pyramids for England and Wales, 1911 and 1931	649
2. Age pyramids for Sweden, 1910 and 1930	650
3. Age pyramids for Germany, 1910 and 1933	651
4. Age pyramids for northwestern and central Europe, 1940 and 1970	652
4. Age pyramids for Europe (excluding the U.S.S.R.), 1940 and 1970	652
5. Age pyramids for southern and eastern Europe, 1940 and 1970	653
5. Age pyramids for the U.S.S.R., 1940 and 1970	653
6. External Trade of the United Kingdom	654
7. External Trade of the United States	655
8. External Trade of Japan	656
9. International Monetary Fund: organization and management	657
10. International Monetary Fund: operations in foreign exchange	658
11. International Monetary Fund: charges by the Fund	659
12. International Monetary Fund: exchange stability	660
13. International Bank for Reconstruction and Development: organization and management	661
14. International Bank for Reconstruction and Development: loan operations	662

TABLES

1. Estimates of the population of the world, 1650-1938	4
2. Birth rates, death rates, and natural increase of population for six countries	8
3. Changes in life expectancy of females in six countries	12
4. Changes in infant mortality in six countries	13
5. Gross and net reproduction rates for five countries	15
6. Percentages of total population (both sexes) of six countries in different age groups	17
7. Future population of England and Wales	21
8. Future population of the United States	22
9. Population projections for Europe and the U.S.S.R. at five-year intervals, 1940-1970	24
10. Emigration from Germany	29
11. Rate of overseas emigration of European countries	31
12. Arable lands of the earth	43
13. Certain vital statistics for Belgium and France	68
14. Certain vital statistics for Germany	69
15. Official estimates on proved petroleum reserves in the United States	101
16. Distribution of hydroelectric energy	103
17. Indices of world primary production, 1929-1938	109
18. Volume of certain foods imported or exported by nine countries in 1935	111
19. Indices of world primary production, 1929-1938	123
20. Indices of primary production in four continents	124
21. World output of tin, by percentages, 1937	130
22. Population density of certain countries	139
23. Per capita income estimates for various countries	149
24. Distribution of world population by "income categories"	151
25. Distribution of income in the United Kingdom	157
26. Wheat acreage harvested and total bushels of wheat produced in the United States, 1919-1934	169
27. World and Japanese production of silk and rayon	179
28. Balances of income and expenditure in the transactions between the United Kingdom and all other countries	214

29. Balance of international payments of the United States, 1938-39	221
30. Europe's trade with the outside world	233
31. International trade in recent years	253
32. Composition of international trade in merchandise	255
33. Percentage composition of merchandise trade for several countries	257
34. Percentage distribution of international trade in 1938 by large areas	258
35. National incomes and foreign trade of selected countries (1938)	262
36. Percentage distribution of the area, the population, and the foreign trade of the world (1938)	279
37. Direction of Europe's merchandise imports and exports (1938)	280
38. Direction of United States merchandise imports and exports (1938)	280
39. Merchandise trade balance of the United States in 1938 by regions	283
40. British exports (United Kingdom produce) revalued at 1913 prices	283
41. A hypothetical seven-billion dollar export trade for the United States	289
42. Tariff levels in twenty countries in 1925	319
43. Tariff levels in twenty countries in 1925: manufactured goods only.	319
44. Changes in foreign trade of the United States with agreement and nonagreement countries	365
45. World total long-term international investments by investment areas, 1929-1930	384
46. World total long-term international investments by lending countries, 1929-1930	384
47. Foreign capital employed in seven countries in 1930	385
48. United States long-term investments in foreign countries, by types of investment and by geographic areas, December 31, 1939	387
49. Foreign long-term investments in the United States, by types of investment, 1938-39	387
50. United States international investments, end of 1934, 1938, and 1939	388
51. Estimates of British investments abroad	389
52. Interest and dividends paid or received by eleven countries in 1929 and 1936	391
53. International investment position of the United States in selected years	416

54. Foreign long-term investments in the United States, by countries and areas, end of 1934	421
55. Foreign long-term investments in the United States, by industries, end of 1934	421
56. United States foreign investments, by geographic areas, for 1929, 1935, and 1939	425
57. Indices of production and stocks of all metals, tin, and rubber, 1929-1938	439
58. Percentage decline in wholesale and retail prices in thirteen countries, 1929-1933	501
59. Gold holdings in five central banks at the end of 1923, 1928, and 1933.	508
60. Gold stock by countries	528
61. Germany's utilization of European resources	569
62. United States foreign trade, 1939-1945	570
63. Index numbers of world population and of world production of selected food crops, 1933-1943	606
64. World food production, by major geographic regions and by type of product	607
65. Cost of self-sufficiency in three European countries for selected commodities, 1936	632
66. Comparison of the price of wheat (January, 1936) in surplus-producing countries and deficit-consuming countries	632

Appendix

1. Birth rates, death rates, and natural increase of population for fifteen countries	663
2. Changes in life expectancy of females in twelve countries	664
3. Changes in infant mortality in twelve countries	665
4. Gross and net reproduction rates for eleven countries	666
5. Percentages of total population (both sexes) of twelve countries in different age groups	668
6. Future population of England and Wales	669
7. Volume of certain foods imported or exported by twenty-one countries in 1935	669
8. Indices of primary production in four continents	670
9. National incomes, birth rates, arable land, and occupational distribution	671
10. Area, population, and foreign trade (in 1938) for seventeen countries	672
11. Comparative tariff levels in nineteen countries (1937)	672

PART ONE
POPULATION

CHAPTER 1

HOW MANY PEOPLE ARE THERE IN THE WORLD?

There is no strictly logical order of subject matter in economics. The topics discussed cannot be so easily arranged as can those in some other fields, as, for example, in mathematics. We cannot start from a few propositions which may be considered as assumed or perhaps proved to be correct and gradually develop a treatment which passes step by step from the simple to the complex. No matter what topic is chosen for first treatment, the economist soon discovers that it cannot be understood without a knowledge of almost countless others upon which it depends. This is true of population analysis, but not more so than of trade, finance, and other matters considered later.

A compelling reason for giving first attention to population questions is that economics is or should be primarily concerned with human beings. Production and distribution of goods are not carried on for their own sakes. The purpose of economic activity is presumably to supply a large and steady stream of commodities and services to human beings who desire them. Years ago, economics (or political economy) was often defined as the science of wealth, or as a study of the production, exchange, and distribution of goods. Today it is more common to place the emphasis on man rather than on material things as, for example, in the statement that "economics is the science of man's activities devoted to obtaining the material means for the satisfaction of his wants."¹ It is fitting that in an analysis of world economics, a start be made by learning something about people — their numbers, distribution, growth, and migration. As we pass later to such matters as trade and finance, we shall be more likely to think of them as merely machinery and of importance only as they improve the lives of human beings.

¹ Fairchild, F. R., Furniss, E. S., and Buck, N. S., *Economics*, New York, The Macmillan Company, 1937, p. 4.

NUMBERS OF PEOPLE AND THEIR INCREASE

The Number of People in the World. As soon as an attempt is made to present what seems to be simple and basic, for example, the number of people in the world and their location, the difficulties of the subject begin to appear. Actually the number of people in the world today is not known. This is especially to be expected of some regions such as the interior of Africa or of Asia, but it is true in varying degrees of all countries. The number of people is ascertained by counting them, by taking a census. But census-taking is expensive and difficult. It cannot be done every year, and there are many reasons why every enumeration is inaccurate. The figures given must be thought of as estimates which have a considerable accuracy for such countries as Great Britain, the United States, France, and Germany; as little more than "educated guesses" for a number of others; and as possessing varying degrees of reliability for still others.

If this study were for population experts rather than for the general student, it would be necessary to compare the estimates made by various authorities and to evaluate them; but our discussion must be limited and will accordingly present only the one given in Table 1.

Attention may be concentrated first upon recent totals, which are 2,057,000,000 for 1933 and 2,145,300,000 for 1938. There are today over two thousand million people in the world. If this number is compared with the estimates for earlier dates, the increases are found to be striking. Notice what has happened. World population has grown from 545,000,000 in 1650 to 2,145,000,000 at present. During the first 150 years of this period (from 1650 to 1800), there was a gain of 361,000,000, or 66 per cent. During the next 138 years (from 1800 to 1938), there was a gain of 1,239,000,000, or an increase of 136 per cent over 1800 and 293 per cent over 1650. There were in 1938 about 1,600,000,000 more people in the world than there were 288 years earlier, and 1,239,000,000 more than there were in 1800.

Few readers will remember for very long the exact amounts or the percentages of these increases, but their general significance should not be missed because of its bearing on much that will be said later. There has been a large advance in the number of people in the world and the rate of increase per annum has been higher in the later period (since 1800) than in the earlier. Such a gain could

TABLE 1
ESTIMATES OF THE POPULATION OF THE WORLD, 1650-1938
(In millions)

<i>Continent</i>	1650	1750	1800	1850	1900	1933	1938
Europe	100	140	187	266	401	519	570.5
North America	1	1.3	5.7	26	81	137	141.9
Central and South America	12	11.1	18.9	33	63	125	132.2
Oceania	2	2	2	2	6	10	10.7
Africa	100	95	90	95	120	145	155.5
Asia	330	479	602	749	937	1,121	1,134.5
World Total	545	728	906	1,171	1,608	2,057	2,145.3

PERCENTAGE DISTRIBUTION

Europe	18.3	19.2	20.7	22.7	24.9	25.2	26.6
North America	0.2	0.1	0.7	2.3	5.1	6.7	6.6
Central and South America	2.2	1.5	2.1	2.8	3.9	6.1	6.2
Oceania	0.4	0.3	0.2	0.2	0.4	0.5	0.5
Africa	18.3	13.1	9.9	8.1	7.4	7.0	7.2
Asia	60.6	65.8	66.4	63.9	58.3	54.5	52.9
	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: This table is a revision by A. M. Carr-Saunders of the estimates of Professor W. F. Willcox which the latter prepared for the League of Nations, together with the addition of population data for 1933 and 1938. See Carr-Saunders, A. M., *World Population; Past Growths and Present Trends*, London: Oxford University Press, 1936, p. 42, and the *Statistical Year-Book of the League of Nations, 1939-40*, Geneva, 1940, pp. 14-19. It should be noted that in this table Mexico has been included with Central and South America, and that Asiatic Russia is included in Europe. Not all of the estimates for the countries covered in the column headed "1938" are for that year. Some are for 1937 and a few are for earlier dates, while some are partial only, for example, those for much of Africa.

not occur except under the influence of powerful forces of some kind, nor can we escape some of the consequences.

Another fact revealed by the table is that the percentage distribution of this population between the continents has been remarkably steady. Europe in 1650 accounted for less than one fifth of the total and today accounts for a little more than one fourth. The percentage in Asia has declined from 60 per cent to 53 per cent. The outstanding changes are a decline for Africa from 18.3 per cent to 7.2 per cent, and an advance for the Americas from 2.4 per cent to 12.8 per cent. If a comparison is made with 1800, it will be seen that the relative positions have shifted more since that date than before. Population everywhere has grown, but the percentages in Asia and especially in Africa have declined. Figure 1, showing the distribution of world population about 1925, is helpful. Although prepared a number of years ago the distribution is today practically the same. Concentration is most noticeable in eastern Asia, includ-

ing Japan and a part of China; and in India; in much of Europe; and in the eastern part of the United States of America.

Some Basic Considerations. The rapid advance in numbers has led to many attempts at explanation, of which the Malthusian theory is the best known. This and other theories will be considered later, but first more facts should be recorded. The data just given are for a period of nearly three hundred years, and each of the comparisons made has been for a hundred or for 150 years. For many purposes this is important, but for others there is needed a statement of what has happened more recently. A growth in numbers occurs for the world as a whole if birth rates are higher than death rates. For a particular country or region there must be included a calculation of the movement of people in or out, that is, a record of human migration. Both "immigration from Heaven" and migration between countries must be considered.

Birth Rates and Death Rates. First to be examined are birth rates and death rates. Birth rates are an expression of the fertility of human beings, which is the actual number of infants born as related to the population. Fertility is, of course, not to be confused with fecundity, which is the biological capacity for reproduction. While fertility cannot be in excess of fecundity, it may be less. The reasons for this are economic, or psychological, or social, and their existence is a reminder that it is not easy to isolate any one set of forces as a basis for general conclusions. Even in economics as a distinct field of study we shall do well to remember constantly what has been called the fundamental rule of modern science, the interdependence of all phenomena.

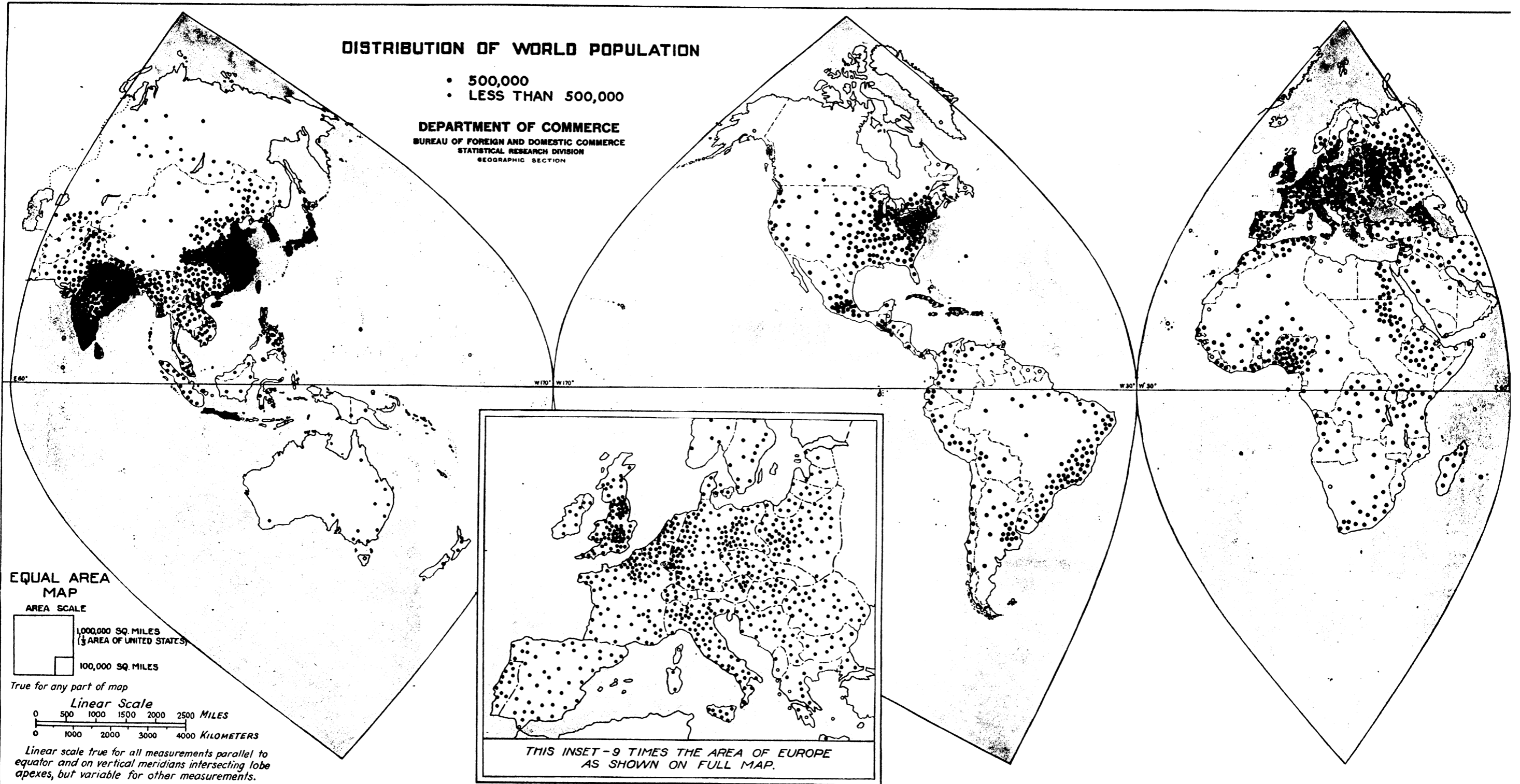
A few facts about birth rates show that, although world population after a long period of rapid growth is larger today than ever before, certain changes are occurring. Nearly everywhere birth rates are declining. Table 2 includes birth rates, death rates, and the excess of the former over the latter, that is, the natural increase, for several countries and for recent dates through 1938, the last year before the outbreak of the Second World War. The figures are "crude" and need to be interpreted with care before any conclusions are drawn. Also, some of them are provisional. Nevertheless, they permit a few broad observations.

Rates of Natural Increase. Only six countries are listed in Table 2, but they are widely scattered and are chosen to illustrate significant trends. (Table 1 in the Appendix gives similar data for fifteen

DISTRIBUTION OF WORLD POPULATION

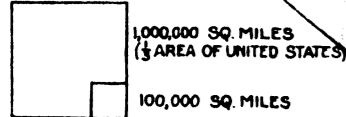
- 500,000
- LESS THAN 500,000

DEPARTMENT OF COMMERCE
BUREAU OF FOREIGN AND DOMESTIC COMMERCE
STATISTICAL RESEARCH DIVISION
GEOGRAPHIC SECTION



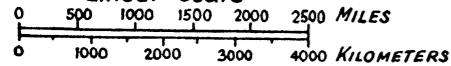
EQUAL AREA MAP

AREA SCALE



True for any part of map

Linear Scale



Linear scale true for all measurements parallel to equator and on vertical meridians intersecting lobe apices, but variable for other measurements.

THIS INSET - 9 TIMES THE AREA OF EUROPE AS SHOWN ON FULL MAP.

FIGURE 1. Distribution of world population. (Reproduced from *Commerce Year Book*, 1926, Vol. II)

countries.) One trend is the general decline in birth rates, to which Egypt, Greece, and Mexico are exceptions. Also, there is a general decline in death rates, with Egypt the only exception among the

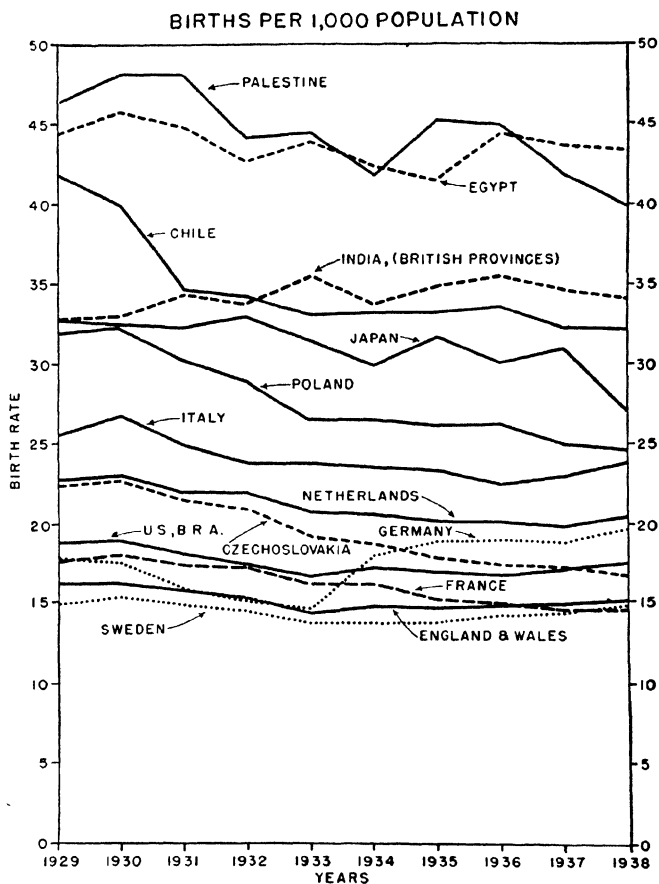


FIGURE 2. Births per 1,000 population, 1929-1938. (Office of Population Research, Princeton University)

countries given in the more extended table in the Appendix. This reduction in death rates has tended to offset that of the birth rates. The net effect is that every country named shows a natural increase in numbers for the periods indicated, with the exception of France in 1911-13 and in 1938. This tendency to a natural increase is, how-

ever, diminishing except for Egypt, Greece, and Mexico. Also, it is very noticeable that the lowest birth rates are in central and western Europe, the United States, and Australia, where, too, the death rates are low. The net increases also are the least in these areas.

Figures 2 and 3 picture the live births and the deaths per 1,000 population (1929-1938) for a number of countries. They make clear the general decline during the years included. Also, they show the relatively low birth and death rates in western Europe, the United States, and New Zealand.

TABLE 2
BIRTH RATES, DEATH RATES, AND NATURAL INCREASE
OF POPULATION FOR SIX COUNTRIES
(Rates per 1,000 inhabitants)

BIRTH RATES				
Country	1911-13	1921-25	1926-30	1938
France	18.1	19.3	18.2	14.6
Germany	27.0	22.1	18.4	19.7
Italy	31.7	29.7	26.8	23.6
Mexico	—	31.9	36.7	39.3
United Kingdom*	24.1	19.9	16.5	15.1
United States	25.1	22.5	19.7	17.6
DEATH RATES				
France	19.0	17.2	16.8	15.4
Germany	14.8	13.3	11.8	11.7
Italy	19.3	17.3	16.0	13.9
Mexico	—	25.5	25.6	22.4
United Kingdom*	13.9	12.2	12.1	11.6
United States	14.1	11.8	11.8	10.6
NATURAL INCREASE				
France	- 0.9	2.1	1.4	- 0.8
Germany	12.2	8.8	6.6	8.0
Italy	12.4	12.4	10.8	9.7
Mexico	—	6.4	11.1	16.9
United Kingdom*	10.2	7.7	4.4	3.5
United States	11.0	10.7	7.9	7.0

* England and Wales only.

SOURCE: *Statistical Year-Book of the League of Nations, 1939-40*, pp. 36-39. These figures as given should be interpreted with care. For example, those for the United States cover only the areas for which vital statistics are available, and instead of the period 1921-25 the period 1922-25 is used; figures for Mexico are provisional or approximate, and so forth.

The latest year given is 1938. More recent figures are available for some countries but not for all. During the war years, 1939-1945, much information was not compiled or, if compiled, was not published.

For several reasons no sweeping conclusions should be drawn. Only six countries are listed in Table 2 and data are given for only a few years, but fifteen countries have been included in Table 1 in

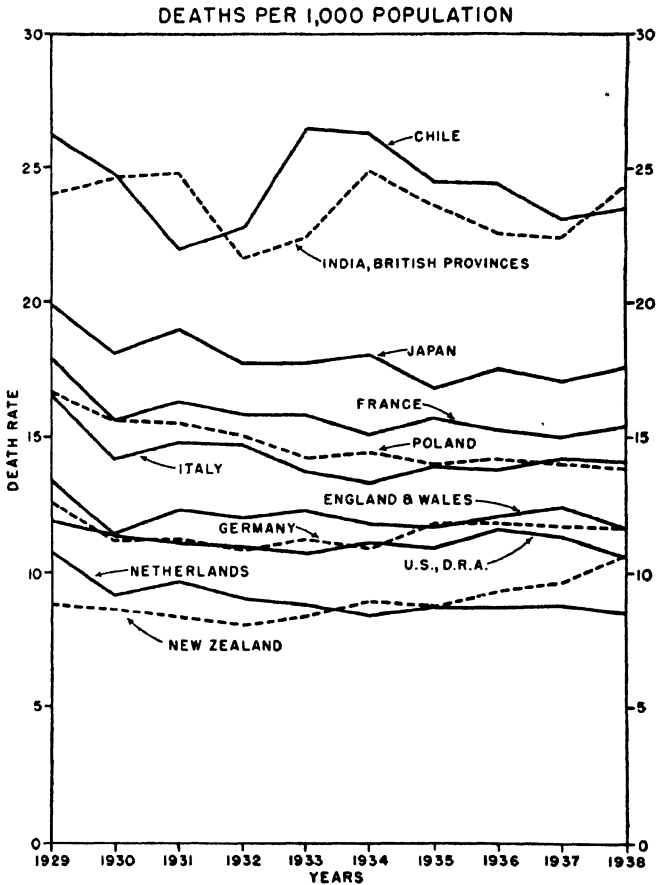


FIGURE 3. Deaths per 1,000 population, 1929-1938. (Office of Population Research, Princeton University)

the Appendix. Also the figures are "crude" and specialists in population study have learned how to "refine" them in many ways. Yet the general picture they present may safely be accepted. In a considerable part of the world, birth rates and death rates are declining. Population is still increasing in nearly all countries, though

slowly in a number of them. There is, however, a clear retardation in the rate of increase, especially in certain regions. Certain other exceptions would be found if more countries and more years were included in Table 2. But these exceptions would have been very few and on their face would not have been at all impressive. It is not surprising that a few years ago many people argued that the world was becoming overcrowded. Certainly, the general excess of births over deaths gave that impression. It is easy to think of this excess as persisting and to imagine that before long the world will have "standing room only."

Many who have observed this change in the rate of population growth have been deeply stirred. Some have "viewed with alarm" what they have considered to be a disastrous tendency. The late Theodore Roosevelt noticed a declining birth rate, especially among those groups he deemed superior, and he declaimed against "race suicide." On the other hand, advocates of birth control have argued that the birth rate among poorer people and in certain areas has been so high as to depress living standards and to cause "overpopulation." This "population question" has often been discussed with emotion since human reactions toward growth and decline in numbers are determined by many considerations, some of which are religious, or patriotic, or even unconsidered assumptions.

SOME APPROACHES TO THE STUDY OF POPULATION FIGURES

Without recording any judgments, at least for the present, we may give a more detailed statement of some of the trends and introduce a few of the refinements insisted upon by population experts. It will quickly be evident that the "crude" figures appear to mean one thing while "refined" figures give a very different impression. Also, the jargon of the experts often seems mystifying. Such terms as crude versus true death rates, age dispersion, and net reproduction rates, are at first sight forbidding. Actually the ideas conveyed are not difficult, and a few must be considered if a clear picture is to be given and if the relation of population to other facts in the field of world economics is to be clarified.

The Decline in Death Rates. A first step is to inquire whether this "natural increase" in population during recent years may be explained, at least in part, by a declining death rate. The birth rate may decline so much as to suggest a reduction in numbers, but if

at the same time the death rate is falling more rapidly, an increase in numbers will be shown, since there will be a continuing excess of births over deaths and a consequent growth of population in the area covered by the figures. This growth may be less than the excess if there should be an emigration from this area. Emigration, indeed, might be so heavy as to give a net decrease. On the other hand, there may be a large immigration that will add to the increase caused by a birth rate higher than the death rate.

A declining death rate means that deaths are postponed. Since the population dies less rapidly, numbers are larger than they would be if deaths occurred at an earlier age. Only a very sharp reduction in birth rates could offset this tendency to an increase in the total. However, this cannot cause an indefinite growth in total numbers. To the extent that the "life span" is lengthened there will be a further postponement but nothing more unless man discovers and applies the secret of perpetual life.

Life Expectancy. There is nothing in the present excess of births over deaths in many countries to indicate that numbers will continue indefinitely to increase. In order to make the point clear, it will be assumed that for any area being analyzed there is neither emigration nor immigration. This leaves for consideration only the "natural" increase or decrease in numbers.

First to attract attention is that "life expectancy" has advanced greatly in recent decades. An examination of Table 3 and of Table 2 in the Appendix shows the changes in recent years in a number of countries, in large part the same ones as in Table 2 and in Appendix Table 1. Egypt, Greece, and Poland have been omitted, because for them figures are available for only one year in each case; and Denmark and India have been added. In order not to lengthen and complicate the tables, the figures are given for females only rather than for both sexes. This choice is made primarily because in some of the topics to be considered in succeeding pages attention must be concentrated on females, especially in considering the "net reproduction rate." Life expectancy, it may be said, is ordinarily lower at all ages for males.

Table 3 should be read with care. For example, the earlier figures for France are for 1908-1913 and for the United States for the more recent period 1929-1931. Everything else being equal, we may expect to see smaller changes in the latter country than in the former, since the time-gap covered is shorter.

TABLE 3

CHANGES IN LIFE EXPECTANCY OF FEMALES IN SIX COUNTRIES

Country	Years	Life expectancy			
		At birth	At 20	At 40	At 70
France	1908-13	52.41	44.83	29.75	8.95
	1928-33	59.02	47.40	31.37	9.58
Germany	1910-11	50.68	45.35	29.38	8.35
	1932-34	62.81	49.84	32.33	9.58
British India	1911	23.31	27.96	18.49	6.22
	1931	26.56	27.08	18.23	6.74
Italy	1910-12	47.33	44.64	29.76	8.18
	1935-37	57.49	49.05	32.30	9.63
United Kingdom*	1910-12	55.35	47.10	30.30	9.58
	1937	64.40	50.40	32.78	9.97
United States†	1929-31	62.67	48.52	31.52	9.98
	1940	67.31	51.15	33.01	10.27

* England and Wales only.

† Whites only.

SOURCE: *Statistical Year-Book of the League of Nations, 1941-42*, pp. 72-74. The figures are official throughout except that those for the United Kingdom for 1937 and those for the United States for 1940 are private. In the United States, life expectancy for Negroes is lower at all ages, except at 70, where it is somewhat higher (11.30 for 1940).

Two points stand out clearly. The first is that for the countries included and for the periods given, there has been (with two exceptions in the data for India) an advance in life expectancy at every age indicated. There are considerable differences which might be greater or might be less if data were available for all countries, say for 1940, as we have them for the United States. Yet the chances for living to an advanced age have been improving. The second point is that the gain in life expectancy is considerable at birth but diminishes with advancing years. At 70 the highest expectancy shown in the tables is for Australia (10.98 years) and the lowest at the more recent dates are for Japan (9.04 years) and for British India (6.74 years). The "life span" is not being lengthened. In time, science may know how to prevent or delay the ultimate collapse known as "old age." As yet this has not been accomplished. Some experts in nutrition now believe the "life span" may be lengthened but the application of their ideas will presumably be slow.

These changes in life expectancy which result in a temporarily lower death rate can be attributed to no one influence. Prominent among them are, of course, the advance of medical science in its control over disease and such related matters as a better choice of food and clothing, and improved housing and sanitation and water

supply. Stable political institutions, with the maintenance of order and protection against violence, are also a factor.

Infant Mortality. Some of the implications of this change in life expectancy can be emphasized by noting in Table 4 the sharp reductions in infant mortality in the same countries as are given in Table 3. (See also Appendix Table 3.) Two facts stand out clearly. First, within each column the differences are great, the range being from 58 for Australia to 182 for British India in the period 1921-25, from 37 to 167 in 1938, and from 37 to 158 in 1941. The second fact is that there is a sharp reduction in infant mortality in all the countries in the years from 1921-25 to 1938.

Of the sixty-two countries for which information is available, only Iceland had in 1938 a lower infant mortality rate (28) than did the Netherlands. Many had high rates, for example: Mexico, 125; Bulgaria and Yugoslavia, each 144; Egypt, 163; Rumania, 183; and Chile, 236. But in all countries the trend is downward.

If the facts thus far presented are brought together, we have the following picture: The population of our world has been increasing and is continuing to increase, the growth since 1800 having been more rapid than in the preceding 150 years. There is still a "natural increase," that is, an excess of births over deaths, with only an occasional exception, such as France in certain years. This natural increase persists in spite of a decline in the birth rates because death rates also have fallen and the birth rates are still the higher. There has been a considerable increase in life expectancy, which is to be explained by social advances along many lines, the effects being strongly reflected in a reduction of infant mortality. There is as yet no evidence, however, that the "life span" has been extended. "Old age" must still be reckoned with, and "life expectancy" for those of advanced years is not much greater now than in the past.

TABLE 4
CHANGES IN INFANT MORTALITY IN SIX COUNTRIES
(Deaths under one year of age per 1,000 living births)

Country	1921-25	1938	1941
France	95	66	73
Germany	122	60	63
British India	182	167	158
Italy	126	106	116
United Kingdom (England and Wales)	76	52	58
United States	74	51	45

SOURCE: *Statistical Year-Book of the League of Nations, 1941-42*, pp. 40-41.

There are left two other refinements — reproduction rates and age dispersion — to be stated briefly. After they have been explained and some of the facts in connection with each have been presented, we shall be better able to consider a few of the broad problems that have arisen because of the population changes in all parts of the world.

REPRODUCTION RATES

Thus far, birth rates have been given as the relationship between births and total population — as a rate per 1,000 inhabitants. This is a “crude” rate and the population experts consider it to be very crude indeed. They point out that a limitation to births in any period of time is found in the number of women of childbearing age and their fecundity. As already pointed out, fecundity, the biological capacity for childbearing, must be distinguished from fertility. Some students have argued that under the complex conditions of modern life, fecundity is actually declining, thus lowering the upper limit for reproduction. The evidence, however, does not seem conclusive, and, in any case, fertility is so far below fecundity, even if the latter is lower than in the past, that the point does not here seem important.

Gross Reproduction Rates. The next step is to inquire what may happen if birth rates remain the same as at present and if death rates rise because a larger fraction of the population attains an advanced age. Although birth rates have fallen, they may still be so high as to give a continuing natural increase even with considerably higher death rates. The answer seems clear for France and almost as certain for several other countries, such as Belgium, Sweden, and the United Kingdom, but not so certain for others. It is possible to refine the data still further and to present for many countries what are known as gross reproduction rates and net reproduction rates.

We may start by noting that the number of births is definitely determined, not only by the fecundity of women, but by their number and particularly by the number in the childbearing age, which is between 15 and 50. To quote:²

If each woman has two children who become parents in their turn, the population will hold its own. If she has three such children, the population

² Kuczynski, Robert R., *The Balance of Births and Deaths*, Vol. I: *Western and Northern Europe*, Washington, The Brookings Institution, 1928-1931, p. 4.

will increase by one-half within each generation. If she has less than two such children, the population will sooner or later decrease.

It is to be noticed that the estimates which are presented for various countries are made by noting only the number of females and particularly those between the ages of 15 and 50, since many die before reaching the childbearing age. The gross reproduction rates show how many girls would on the average be borne by each woman within these age limits.

Net Reproduction Rates. But this assumes that all women attaining the age of 15 will live to be 50 or more, which is not true. Many die during that period, and the statisticians have accordingly refined the figures still more and have calculated net reproduction rates, which are lower than the gross. There are always imperfections in the assembling of statistical data and some disputes among the experts regarding the assumptions to be made and the methods to be followed. Consequently, there is not absolute uniformity in results but the differences are slight and there is no disagreement over the general trends.

In Table 5 are presented the gross and net reproduction rates for five countries. (Table 4 in the Appendix gives a longer list.) Net reproduction rates are most important. A net reproduction rate of 1.250, if maintained, means that the population will increase by a quarter in each generation; a rate of 0.800, that the population will decline by a fifth in each generation; and a rate of 1.000, that the population will remain constant.

TABLE 5
GROSS AND NET REPRODUCTION RATES FOR FIVE COUNTRIES

Country	Year	Gross reproduction rates	Net reproduction rates
France	1936	1.010	0.880
Germany	1939	—	0.982
Italy	1935-37	1.425	1.131
United Kingdom (England and Wales)	1937	0.883	0.782
United States* (whites only)	1938	1.091	1.003

* Approximate data.

SOURCE: *Statistical Year-Book of the League of Nations, 1939-40*, pp. 48-49.

With this meaning in mind, notice the net reproduction rates in Table 5 (and in Table 4 in the Appendix). For every country (except

Belgium, for which only one year is given), the rates have been declining. In several countries, there has been a slight recovery, the most noticeable being Germany since 1933, although in 1938 the rate was only 0.982, that is, less than necessary for replacement. Of the eleven countries included, only Italy, Japan, and the Netherlands had a rate appreciably above replacement, and the United States only slightly above in 1938 after a low of 0.947 in 1936. If

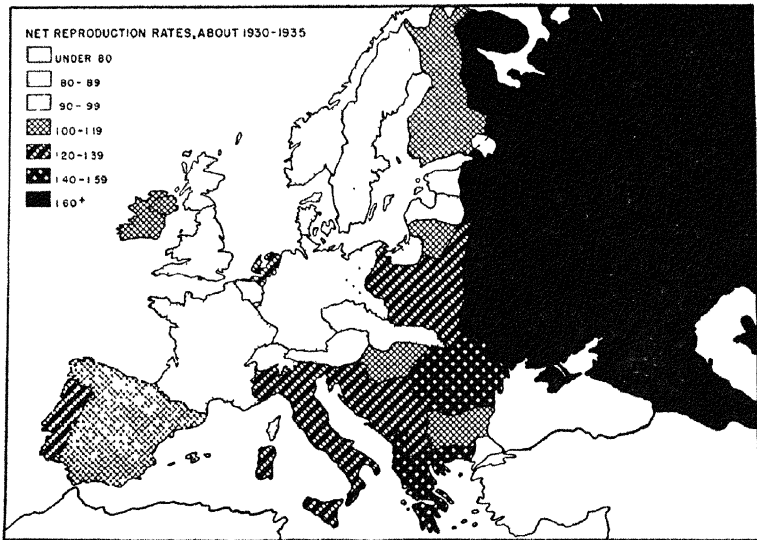


FIGURE 4 Net reproduction rates for Europe and the U.S.S.R., about 1930-35. (From Notestein, Frank E., and others, *The Future Population of Europe and the Soviet Union*, Geneva, The League of Nations, 1944)

all the other countries for which data are available in the source used had been included in these tables, it would be noted that Bulgaria, Canada, Ireland, New Zealand, Poland, Portugal, and the Union of South Africa have rates still higher than replacement, but all of them declining. Czechoslovakia, Estonia, Finland, Latvia, Norway, and Switzerland are below replacement. Hungary had declined to a rate (approximate) of 1.000 in 1938, and Austria, after a decline to 0.6400 in 1939, had an estimated rate (approximate) of 1.000 for 1939.

Net reproduction rates for Europe are presented vividly in Figure 4. In general, the map shows the lowest rates in the northern

and western areas with net reproduction rates in excess of 1,000 in the south and in the east. The Soviet Union has a rate of 1,600.

ALTERATION IN AGE DISTRIBUTION

One other term must be explained. What is known as "age dispersion" or "age distribution," is constantly changing. At any given time, certain percentages of the total population are under 10 years of age, between 10 and 20 years, and so on, but this relation shifts as the years pass. How it alters needs to be made clear and is set forth in Table 6 for six countries. (In Table 5 of the Appendix, similar data are given for a number of other countries.)

TABLE 6
PERCENTAGES OF TOTAL POPULATION (BOTH SEXES) OF SIX
COUNTRIES IN DIFFERENT AGE GROUPS

Country	Years	Age groups			
		0-19	20-39	40-59	60+
France	1911	33.8	30.4	22.9	12.7
	1936*	30.8	30.8	23.8	14.6
Germany	1910	43.5	30.4	18.2	7.8
	1937†	30.9	33.1	23.8	12.2
British India	1911	46.8	31.9	16.0	5.2
	1931	49.0	31.9	15.0	4.1
Italy	1911	43.1	27.3	19.0	10.5
	1936	37.7	31.6	19.7	10.9
United Kingdom (England and Wales only)	1911	39.9	32.5	19.4	8.0
	1937*	29.9	32.1	24.7	13.2
United States	1910	42.0	33.3	17.8	7.0
	1935*	36.6	31.6	22.5	9.1

* Estimated.

† Including Austria and the Saar Territory.

SOURCE: *Statistical Year-Book of the League of Nations, 1935-36*, pp. 28 ff., and *1939-1940*, pp. 24 ff.

It should be noticed carefully that the dates for the various countries are not the same. There are also a few changes in territorial area from one date to another for some countries, the most important being the addition of Austria and the Saar Territory to Germany. For our purpose, which is merely to notice broad trends, these are quite minor points. Observe that in every country in the list, with the exception of India, there is a reduction in the youngest age group. It is slight for Japan, for which we have before us the changes through only ten years. Moreover, the birth rate in Japan

is still high (26.7 in 1938), and for India still higher (34.1 in 1938). The reduction is only moderate for France (from 33.8 to 30.8), but the birth rate in that country was only 18.1 in the period 1911-13 and only 14.6 in 1938. At the other extreme are Sweden, with a decline from 41 per cent to 30 per cent, and England and Wales, from 39.9 per cent to 29.9 per cent.

Notice also the increase in the percentages in the oldest group, 60 years and above. The increases here are less than the decreases in the youngest group, but there is some advance except in the case of Japan and India, where there are slight reductions. It is clear that the age distribution of the population is changing, and that, for the countries listed in the tables, the average age is higher than it was about twenty-five years ago, India being an exception.

Such changes as have occurred and as are suggested for the future in the various "statistical exercises" just described mean that the age distribution is undergoing great alterations. These alterations are bound to bring repercussions within each country and in the relations between countries. Notice the age distribution in India in 1931 as shown in Figure 5. The general shape is that of a pyramid with a broad base because birth rates in India are high (34.4 for British India, 1931-35). Death rates are also relatively high (23.5 for 1931-35), with life expectancy low (26.56 for females and 26.91 for males at birth). There is consequently a rapid tapering off of the pyramid, showing a very low percentage of advanced age.

This pyramid may be contrasted with the accompanying one given for England and Wales. The latter shows for 1841 a shape roughly similar to that of India for 1931, but by the later year the base had narrowed and the upper part had broadened. The shape has altered from that of a pyramid to what has been called a "Christmas tree" shape. Similar changes have occurred in the other countries of Europe and some are shown in Figures 1 through 5 in the Appendix. Among them are another diagram for England and Wales indicating the shift in recent years, and also diagrams for Sweden and for Germany. The possible changes from 1940 to 1970 for northwestern and central Europe, for Europe (excluding the Soviet Union), for southern and eastern Europe, and for the Soviet Union are also shown.

Some of the implications of this shift in age distribution may be briefly mentioned. Within each country as the average age advances, there will for a time be a higher percentage of the population in the

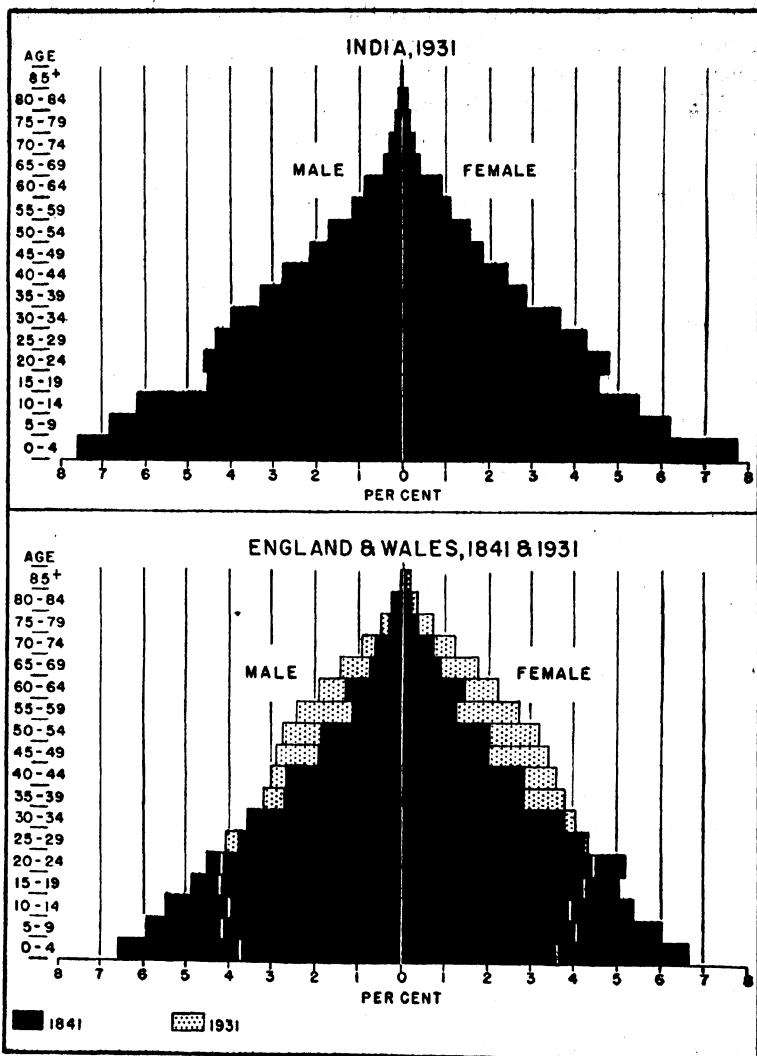


FIGURE 5. Age pyramids for India, 1931, and for England and Wales, 1841 and 1931. (From Notestein, Frank E., and others, *The Future Population of Europe and the Soviet Union*, Geneva, The League of Nations, 1944)

“productive age” group. But as the percentage in the higher age groups increases, there will be a relative decline of “producers” and a larger percentage beyond the years of productivity to be supported by the community. For business men, there will be a contracting market for baby carriages and for toys and an expanding one for canes and wheel chairs.

In the relations between countries, too, there will be new conditions in the years to come. In the relative size of their populations, some countries will decline and others will advance. As age distribution alters, there will be a similar change in the percentage not only of producers but also of those of military age. Under modern methods of warfare this is of profound importance since only young men can stand up under the grueling ordeal of active combat. Unless those countries in which the age distribution is rapidly changing can find ways of ending war, they will find themselves at a serious disadvantage in manpower in the very near future. This is significant, however, only to the extent that numbers are decisive, as contrasted with mechanical power as illustrated by the atomic bomb.

ESTIMATES OF FUTURE POPULATION

These changes have not escaped the attention of students and statesmen. World population has increased very rapidly during the last 150 years, and there is still in most countries a “natural increase,” that is, birth rates are higher than death rates. But birth rates, with only a few exceptions, are continuing downward; life expectancy is advancing while the life span has not been extended; net reproduction rates in many countries are now less than 1.000; and age distribution is changing.

What about the future? It should be said at once and with all possible emphasis that the social scientist does not know. He makes no attempt to prophesy. There are too many factors of constantly changing strength to make forecasting possible. This will be discussed later. Here it may be observed that those who are inclined may engage in “statistical exercises.” Many distinguished and competent students have done so and have presented their calculations. One has reached a conclusion which is quoted herewith:³

With a fertility and mortality as they prevail at present, the population of some smaller countries (in Western and Northern Europe) still shows a

³ Kuczynski, Robert R., *op. cit.*, p. 62.

genuine growth, but the population of the larger countries, France, and especially England and Germany, is doomed to die out.

Dr. Kuczynski has not prophesied. When he wrote these words in 1928, he could not know the coming trends of fertility and mortality, but Table 2 (page 8) shows that in the succeeding ten years the downward trend persisted, especially that of the birth rates. This trend adds point to the conclusion he reached in his "statistical exercise." Emphasis is placed on the nature of such calculations, especially on the assumptions made and clearly recorded by the statisticians, because so many persons seem to view them as forecasts. They are such only to the extent that the stated assumptions are later shown to have been correct.

With this warning clearly in mind, we may notice the results shown by certain investigators. What they have indicated about the future population of various countries, if some of the present trends persist, has caused extensive discussion and deep concern among all who believe that a decline in numbers is "bad."

One set of estimates was prepared for England and Wales in 1935 by Dr. Enid Charles, who based them on three different assumptions: (A) that fertility and mortality will remain at the 1933 level; (B) that fertility and mortality will continue to decline at about the present rate; and (C) that fertility will increase to the level of 1931 and mortality will continue to decline. Her estimates are given in Table 7 and also in Table 6 in the Appendix.

TABLE 7
FUTURE POPULATION OF ENGLAND AND WALES
(In thousands)

(As estimated by Dr. Enid Charles)

Year	Assumptions*		
	A	B	C
1935	40,563	40,563	40,563
1965	38,504	35,799	43,744
2035	19,969	4,426	33,585

* For an explanation of these estimates, see the account in the text.

SOURCE: Condensed from Charles, Enid, *The Effect of Present Trends in Fertility and Mortality upon the Future Population of England and Wales and upon its Age Composition*, London, The Royal Economic Society, Memorandum No. 55.

It is of interest to examine next a calculation for the United States. Attention has already been called to the decline in fertility

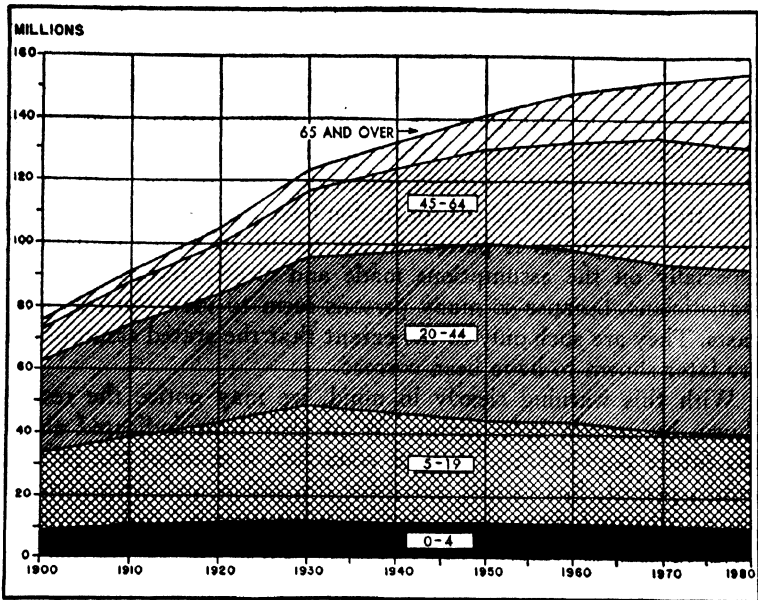


FIGURE 6. Trend of population in the United States by broad age classes, 1900-1980. (From the National Resources Committee, *Problems of a Changing Population*, Washington, 1938)

and mortality (Table 2) with a natural increase in 1938 of 7.0 per 1,000 inhabitants; to the advance in life expectancy (Table 3); to the net reproduction rate estimate as 1.003 for 1938 after a low of 0.947 in 1936 (Table 5); and to the alteration in age dispersion (Table 6).

TABLE 8
FUTURE POPULATION OF THE UNITED STATES
(As estimated by the Bureau of the Census)

Year	Numbers
1940	131,669,275
1950	140,561,000
1960	146,987,000
1970	151,170,000
1980	153,022,000

SOURCE: *Population Bulletin*, August, 1941, Population Reference Bureau, Washington, D. C.

The estimates given in Table 8 are by the United States Bureau of the Census. They are of course also to be thought of as "statisti-

cal exercises," even though they are presented by a government bureau, since no one can do more than estimate the future. The population, as given for 1940, is that revealed by the national census of that year. The numbers given for later dates are based on the assumptions of no immigration and of a decrease in the birth rate of about 25 per cent.

In order to emphasize the significance of the changes that have already taken place in the United States and those that may occur in the next few decades, Figures 6 and 7 are included here. Figure 6 shows the alteration in the numbers of persons in each of five age groups from 1900 through 1940 and projected thereafter to 1980. In the lowest age group (0 to 4 years), the numbers increased until 1930 but remain about the same during the rest of the period. In the next age group (5 to 19 years), there is a decline after 1930, and in the third (20 to 44 years), a maximum by 1950 and a decline thereafter. In the groups over 44 years of age, there is an increase throughout. Figure 7 contrasts the distribution by age and sex for 1930 and 1980 in "age pyramids." The pyramid for 1930 is in white with that for 1980 superimposed in outline. Notice the narrowing of the base and the broadening of the upper rectangles.

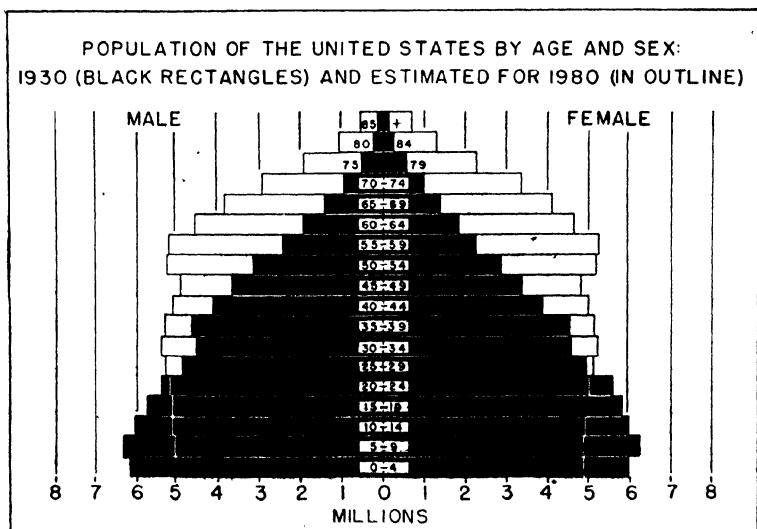


FIGURE 7. Black rectangles, age group pyramids for the United States, 1930, in outline, estimated for 1980. (From *Population Index*, April, 1938)

The calculations of Dr. Enid Charles for England and Wales under Assumption C (Table 7) showed an increase in numbers to a maximum of 43,744,000 inhabitants in 1965. These estimates for the United States show an increase to 153,022,000 in 1980 and, judging from the trends, there will be a decrease in population thereafter, if the assumptions remain true. Of course, the acceptance of other assumptions as a basis would give different results.

The most ambitious attempt to estimate the size of future populations has been published by the League of Nations.⁴ As already pointed out, such studies are not prophecies. They are mathematical calculations based on carefully stated assumptions. The best that can be done is to notice past trends and make the most sensible or plausible assumptions about their continuance. In the study mentioned, these are two in number. The first is that "the trends of the vital rates up to 1970 will represent orderly developments of those in the interwar period." There will be year-to-year variations and new elements may appear, but "in the past the underlying trends of vital rates have shown considerable stability."

"The second major assumption is that no migration takes place over the 1937 borders of Europe between the base censuses and 1970. The assumption has been false thus far, and undoubtedly will be invalid for the years remaining until 1970." It may be added that, while there may be migrations within the Continent, these would not of themselves affect the estimates for the Continent as a whole but only those for particular countries.

TABLE 9
POPULATION PROJECTIONS FOR EUROPE AND THE U.S.S.R. AT
FIVE-YEAR INTERVALS, 1940-1970
(In thousands to three significant figures)

	1940	1945	1950	1955	1960	1965	1970
Europe and the U.S.S.R.	574,000	597,000	618,000	636,000	650,000	661,000	668,000
Europe (excluding the U.S.S.R.)	399,000	408,000	415,000	419,000	421,000	421,000	417,000
Northwestern and central Europe	234,000	236,000	237,000	237,000	234,000	231,000	225,000
Southern and eastern Europe	165,000	172,000	177,000	183,000	187,000	190,000	192,000
U.S.S.R.	174,000	189,000	203,000	216,000	228,000	240,000	251,000

SOURCE: Notestein, Frank W., and others, *The Future Population of Europe and the Soviet Union*, Geneva, The League of Nations, 1944; condensed from Table 2, p. 56.

⁴ Notestein, Frank W., and others, *The Future Population of Europe and the Soviet Union*, Geneva, The League of Nations, 1944, especially p. 56.

With this reminder of the caution to be used in relying upon the estimates as a forecast, Table 9 may be examined. The numbers given for 1940 are those of the various censuses (or estimates). Only the larger divisions of the Continent are given.

These estimates, based on the assumptions stated, indicate a probable increase for Europe (including the Soviet Union) of 96,000,000 inhabitants in the thirty years from 1940 to 1970, or nearly 17 per cent. If the Soviet Union is not included, the gain is only 18,000,000, or less than 5 per cent, a high point having been reached in 1960 and 1965. For northwestern and central Europe there is a decrease of 9,000,000, and for southern and eastern Europe an increase of 27,000,000, while for the Soviet Union the gain is 77,000,000 inhabitants.

Since the estimates by the experts are based on different assumptions, it is not to be expected that the results will be the same. Nevertheless, they agree in certain broad particulars. All find that the rate of population increase is diminishing; that in the "Western" countries the peak will soon be reached and in some cases has already been passed; and that, if the assumptions prove correct, a maximum will be attained in all the countries surveyed (with the exception of the Soviet Union) in the not very distant future. In the meantime, the population of the "Western" countries will decline relatively.

SELECTED REFERENCES

Carr-Saunders, A. M.: *World Population; Past Growth and Present Trends*. London: Oxford University Press, 1936.

Dell, B. N., and Luthringer, G. F.: *Population, Resources and Trade*. Boston: Little, Brown & Company, 1938, Part I.

Fairchild, H. P.: *People: The Quantity and Quality of Population*. New York: Henry Holt & Company, 1939.

Kuczynski, Robert R.: *The Balance of Births and Deaths*, Vol. I: *Western and Northern Europe*. Washington: The Brookings Institution, 1928-1931.

Myrdal, Gunnar: *Population: A Problem for Democracy*. Cambridge: Harvard University Press, 1940.

Notestein, Frank W., and others: *The Future Population of Europe and the Soviet Union*. Geneva: The League of Nations, 1944.

Reddaway, W. B.: *Economics of a Declining Population*. London: Macmillan & Company, Ltd., 1939.

CHAPTER 2

MIGRATION

Years ago, the late Herbert Quick wrote a little volume entitled *The Good Ship Earth*. In it he pictured our globe as a great ship sailing from an unknown port of departure to an unknown destination. On its decks are large and growing numbers of passengers and a green rash upon which they subsist. As their numbers increase and other conditions change, these passengers surge back and forth, struggling for this limited means of sustenance without which they must perish.

For many centuries people have moved from one area to another, sometimes as individuals but often in organized groups. Long before the time of Christ, the Babylonians, the Egyptians, and the Assyrians were shifting back and forth, and ever since there have been migrations in all parts of the world as one group or tribe or nation exercised pressures upon its neighbors. Some of the movements were slow and peaceful, others were accompanied by violence. They were motivated by religious, by political, and by economic considerations. We need say no more of these earlier migrations than to point out that the resulting intermingling of peoples tended to obliterate any former distinctions between them of a "racial" sort, and to destroy the factual basis for much modern propaganda.

MIGRATIONS DURING THE NINETEENTH AND TWENTIETH CENTURIES

We shall go back no further than to the migrations of the nineteenth century. It has been since 1800 that the population of the world has grown with unprecedented rapidity and that economic life has assumed its present general form. Economic imperialism is the name that has often been given to the organization and procedures of the last 150 years. During this period, millions of people have moved from their former homes to new locations, and it has

been argued¹ that there still exist "differential pressures of people on their resources," and that this "is one of the important causes of friction between nations." Many persons believe that this differential pressure on resources still exists, attribute to it much of the international strain of the twentieth century, and believe that further extensive migrations, if appropriate in amount and direction, would lessen international conflicts as well as make possible an enlarged world production.

In absolute figures, the migrations of the nineteenth century are large. Most important of these movements have been those from Europe to the Americas. Exact figures cannot be given, since the keeping of accurate statistics is a huge task in which careful effort, uniform methods, and international co-operation are necessary. These do not yet exist, although progress is being made. One illustration of the difficulty is that of definition. Many population movements are temporary, but how long is "temporary"? Are tourists to be regarded as emigrants (or immigrants)? Presumably not, but how long must a migrant stay in a foreign country to pass from the tourist classification to that of a permanent resident? Each year, too, some who are clearly immigrants return to their home countries, and so "net" rather than "gross" or "crude" figures are for some purposes of the highest importance. Also, it is comparatively easy to get crude figures for overseas movements, but much harder even to estimate international migration between the countries of a continent, in Europe, Asia, or the Americas, for instance.²

COUNTRIES OF DESTINATION

Estimates, however, have been made. One³ is that between 1820 and 1929, about 38,000,000 immigrants entered the United States, of whom some 30,000,000 remained; that about 57,000,000 persons have entered the Western Hemisphere during the nineteenth century; and that about 60,000,000 persons left Europe during this same period, of whom perhaps two thirds remained abroad. Another writer⁴ estimates that from 1846 to 1932, there were 53,450,000

¹ For example, in Thompson, Warren S., *Danger Spots in World Population*, New York, Alfred A. Knopf, 1929, preface.

² Ogilvie, Frederick W., *The Tourist Movement; an Economic Study*, London, P. S. King & Company, 1933.

³ Thompson, Warren S., *Population Problems*, New York, McGraw-Hill Book Company, 1930, pp. 375-376.

⁴ Carr-Saunders, A. M., *World Population; Past Growth and Present Trends*, London, Oxford University Press, 1936, p. 49.

emigrants in the world as a whole, of whom 51,696,000 left Europe, some 1,194,000 left British India, and 518,000 left Japan. World immigration from 1821 to 1932 he estimates at 59,187,000. Of these, 53,826,000 entered the Americas, while 3,834,000 entered Oceania (chiefly Australia and New Zealand), about 1,437,000 entered Africa (especially South Africa and Mauritius), and the Philippines received 90,000.

These estimates show that the largest shift was to the Americas, some 34,244,000 coming to the United States, with Argentina, Brazil, the British West Indies, and Canada accounting for most of the balance. The chief continent of origin was Europe. The period, consequently, was one in which the outstanding feature was a shift from Europe to the United States. Within the last few years, this movement has sharply declined, and recently there have been several years when there was a net movement outward from the United States.

These numbers seem large, but size is a relative matter. The pencil with which these words are being written is long compared with a pin but short when compared with the tree just outside the window. Absolute numbers may mean little and should be judged in relation to other facts, since we are concerned with the extent to which the growth and migration of population has been, or in the future may be, caused by economic forces, notably "population pressure" and the extent to which "pressure" is continuing or is being relieved.

One check that may be made is to notice that in 1920, before the present sharp restrictions upon immigration, the white population of the United States included 61.6 per cent of native parentage, 16.6 per cent of foreign parentage, and 7.4 per cent of mixed parentage, while 14.5 per cent were foreign-born. This gives the impression that the "alien" portion of the United States population was a rather high percentage of the total, but by itself it tells us nothing of the effects of such a percentage. Moreover, its desirability can be judged only in case definite standards of some kind are set up.

COUNTRIES OF ORIGIN

If we turn to the area of origin, one comparison that at once suggests itself is with the numbers of people in the countries of emigration. Much current discussion has to do with the alleged "population pressure" in four countries: Germany, Italy, Japan, and Poland.

Migration from Japan has not been important, but it may be that past emigration has relieved "pressures" in the other three countries.⁵ "Over-population" has been said to exist in many other regions but space permits reference only to a few.

Germany. Available estimates do not make it possible to apply this test in quite the same manner for all three countries, but fortunately a fair judgment can be formed in each case. First, notice the case of Germany, as revealed in Table 10. There are slight im-

TABLE 10
EMIGRATION FROM GERMANY

Total emigration (1846-1932)	4,889,000*
Population	
1850	35,310,000†
1933	65,218,500‡
Losses through emigration per thousand inhabitants§	
1901-1910 (average)	1.55
1911-1925 (average)	?
1926-1933 (average)	0.50
1934	0.21
1935	0.18

SOURCES:

* Carr-Saunders, A. M., *World Population; Past Growth and Present Trends*, London, Oxford University Press, 1936, p. 49.

† Bowden, W., Karpovici, M., and Usher, A. P., *An Economic History of Europe Since 1750*, New York, American Book Company, 1937, p. 21. (Boundaries of 1871 are used.)

‡ *Statistical Year-Book of the League of Nations, 1938-39*, p. 21.

§ Slightly adapted from Touzet, André, *Le Problème coloniale et la Paix du monde*, Paris, 1937, Vol. I, p. 115 (cited by Wright, Fergus Chalmers, *Population and Peace*, Paris, 1939, p. 201; also published as Vol. 2 of *Peaceful Change*, New York, Columbia University Press, 1938-39).

perfections in this tabulation. Total emigration is for the period from 1846 to 1932. Population figures⁶ are for 1850 and 1933, the boundaries for Germany having changed in the interval. Yet the 4,889,000 persons who left Germany during eighty-seven years do not seem a large number compared with the approximately 30,000,000 increase in population in that country. In fact, they were less than one sixth of the growth in the numbers remaining, or one seventh of the numbers who presumably would have been

⁵ "In spite of the organization that surrounds Japanese migration one faces the striking fact that there are not quite a million Japanese residing in foreign countries, and only 1.8 to 1.9 million if we include Japanese colonies and parts of the Empire outside Japan proper." (Pelzer, Karl J., "Japanese Migration and Colonization," in *Limits of Land Settlement*, edited by Isaiah Bowman, New York, Council on Foreign Relations, 1937, p. 184.) The population of Japan in 1939 was officially estimated at 72,876,000.

found in Germany had there been no emigration. The same conclusion appears from an examination of Touzet's calculations of the losses through emigration per thousand inhabitants. During almost all of this period, restrictions on immigration into other countries were unimportant. If there was "population pressure," it was not greatly relieved by migration from Germany prior to 1932. It may be, of course, that conditions are different now, but there is at least a suggestion that, in the absence of restrictions, the growth of numbers does not result in a corresponding amount of emigration. The contention that there is a tendency for population to overflow because of internal pressures and to maintain a world level (as water seeks its level) is not convincing, unless it is so refined as to be almost meaningless. As will be noticed later, it is just as plausible, or more so, to argue that there is a pull from the countries of immigration.

It has been argued that "population pressure" is not relieved by emigration because any reduction in numbers brought about in this manner is definitely offset by a rise of the birth rate, thus maintaining numbers at the level that would otherwise have prevailed. But the birth rate in Germany was 39.3 per 1,000 inhabitants from 1876 to 1880 and had fallen to 14.7 in 1933 (or to 19.6 in 1926, if it seems unfair to cite 1933), and was only 20.4 in 1939 and 14.9 in 1942. It may be that the birth rate would have been still lower had there been no emigration, but, in the absence of other evidence, such a contention cannot be seriously advanced.

Poland. So extended a record for Poland cannot be presented, since it existed as a modern country only after the First World War. Also, after 1924, restrictions imposed on immigration into the United States lessened the possibility of such a movement. From 1920 to 1932, the overseas emigration was 642,000,⁶ which is an average of about 58,000 persons per year out of a total population of 32,113,000 in 1931. This total of 642,000 for twelve years is only 2 per cent of the population of 1931, and the yearly average (58,000) is only 0.18 per cent, or less than two tenths of 1 per cent. The birth rate for Poland, which is estimated at 37.8 per 1,000 inhabitants for 1911-13, was 24.5 per 1,000 in 1938, when the death rate was 13.8, a difference of 10.7 per 1,000 inhabitants.

Italy. Overseas emigration from Italy has been larger. From 1846 to 1932 it was 10,092,000 and per 1,000 inhabitants it varied from

⁶ Carr-Saunders, A. M., *op. cit.*, p. 49.

1876 to 1932 between 1.1 per cent and 13.9 per cent. These percentages were particularly high from 1901 to 1920 (the years 1914 to 1919 not included). In both Poland and Italy, birth rates have been declining. In the case of Italy, emigration seems to have exercised a retarding influence on population density, though not to a spectacular extent. In none of the three countries has there been a reaction in the birth rate that can reasonably be related to overseas migration.

A few pages later reference will be made to the recent growth of government restrictions upon immigration and even to some extent upon emigration. These restrictions are often mentioned as the chief reason for the decline of migration, but there is another possibility to be considered. As one writer observes: ⁷

Thus the long-term trend of European mobility was on the down-grade before the war of 1914-19; this decline was evidently not the effect solely of the war and post-war political reactions, but had begun in some countries and continued in others during a period of laissez-faire and active international trade.

In support of this contention, he presents the tabulation given in Table 11.

TABLE 11
RATE OF OVERSEAS EMIGRATION OF EUROPEAN COUNTRIES
(Emigration per 1,000 inhabitants)

<i>Years</i>	<i>United Kingdom</i>	<i>Scandinavia</i>	<i>Italy</i>	<i>Hungary</i>	<i>Germany</i>
1871-5	6.0	2.8	—		
1876-80	4.2	2.9	1.4		
1881-5	7.3	7.2	2.8		4.86 1881
1886-90	6.9	6.8	3.7		2.41 1891
1891-5	5.1	5.3	4.1		
1896-00	3.8	2.3	4.9	2.9 1899-1904	
1901-5	2.7	5.3	8.4		0.39 1901
1906-10	3.9	4.2	9.4	8.8 1905-7	
1911-5		2.6	9.2 1911-13	4.2 1908-13	0.35 1911
1916-20		0.9	—		
1921-5		2.1	5.9 1920-23		0.38 1921

It may be true, as argued by Forsyth and others, that the period of extensive intercontinental and even of intracontinental migration had come to an end primarily for other reasons than "political conditions and exclusion laws." In support of this general view, it is

⁷ Forsyth, W. D., *The Myth of Open Spaces*, Melbourne, 1942, p. 8; also New York, G. E. Stechert & Company, 1942.

contended that there has appeared a migration to the cities, with a tendency for population to concentrate particularly within four areas: North America, Europe, China, and Japan. Manpower is less important than in the past for the production of food and raw materials. Production has not declined but has increased, leading often to "overproduction." With a decline in the percentage of the total population engaged in "primary" occupations and a shift to "secondary" and "tertiary" occupations, there has been a "drift to the cities" or at least to more densely populated regions, rather than a continuation of the former movement to overseas areas or even to other countries on the same continent. (For an explanation of this classification of occupations, see Chapter 9, footnote 10.)

INTRACONTINENTAL MIGRATION

Thus far little has been said of emigration other than overseas. For this there are two reasons. One is that statistical information on overseas movements is much more easily compiled and is hence available. A second is that this volume is intended to be used primarily by Americans. As already observed, the overseas movements have been largely from Europe to America and particularly to the United States. In fact, this has been the chief intercontinental migration, the leading exception being a considerable movement from Russia into Asia.⁸ But there has been a large intracontinental migration, particularly within Europe. After about 1880 "movements of individual unskilled workers from one European country to another took place on a large scale."⁹ Poles, Italians, and others moved for longer or shorter periods of stay to areas where there was a demand for their labor. Because of the general lack of barriers to such movements before the First World War, information regarding them is vague, although in 1911 the French census enumerated 1,133,000 aliens, which may be compared with 3,300,000 in 1931. After the First World War restrictions grew, passports were almost always required, and obstacles (especially to immigration) became numerous. Restrictions upon emigration also exist in the case of Italy and Russia that are "really serious obstacles."

Yet these postwar movements were considerable. In the ten-year period of 1922-1931, there was an annual average Continental emi-

⁸ Carr-Saunders, A. M., *op. cit.*, p. 46.

⁹ *Ibid.*, p. 145. The following discussion of European Continental migration is based chiefly upon the same volume, chap. XII.

gration of approximately 92,000 from Poland, 160,000 from Italy, and 26,000 from Czechoslovakia, and an annual average Continental immigration of approximately 84,000 into Germany, 167,000 into France, and 32,000 into Belgium.

MIGRATION TO COLONIES

Special attention should be given to the extent of migration to colonies, since there has been so much discussion during the last few years of the need for a redistribution of colonial possessions. It should at once be emphasized that a demand for the acquisition or retention of colonies may be for other than economic reasons. Moreover, the economic reasons may be several in number — for markets, for a controllable source of supply of raw materials, or for areas to which “excess population” may emigrate. What follows is merely a statement of the extent to which in the past colonies have been an outlet for the population of the home countries.¹⁰

There is so little basis for the popular conception that colonial areas furnish permanent homes for migrants from the mother countries, that this argument seldom appears in modern claims for territorial redistribution. Instead, it is contended that the economic value of colonies can be attributed to the location in them of large and valuable supplies of raw materials.¹¹ Although some three fourths of the territory controlled by European powers is in Africa, less than 2 per cent of the net emigration from Europe has gone to that continent and less than six ten-thousandths of Europe's present population has stayed there. In contrast, less than one fifth of American territory is similarly controlled, but almost nine tenths of the permanent European emigration has been to the Americas. Although over one fifth of European-controlled territory is Asiatic, less than four tenths of 1 per cent of the permanent European emigration has been to Asia.

In 1914, thirty years after Germany began to acquire colonies, there were fewer than 20,000 Germans resident in all the German colonies, or just about as many as the German residents of Cam-

¹⁰ For an extended analysis of the importance of colonies as an outlet for population, as sources of raw materials, and as markets for exports, see Clark, Grover, *A Place in the Sun*, New York, The Macmillan Company, 1936, and *The Balance Sheets of Imperialism*, New York, Columbia University Press, 1936. The former source has been extensively used in the following paragraphs.

¹¹ See, for example, “Colonies and Raw Materials,” *Völkerbund*, Journal of the German Association for League of Nations Questions, May-July, 1937, Geneva.

bridge, Massachusetts, in 1913 and about one third the number of Germans living on Manhattan Island in 1914.

In 1931, in all the Italian possessions, there were only 41,384 Europeans, of whom perhaps 35,000 were Italians, which may be compared with some 40,000,000 in Italy. These 41,384 were less than 2 per cent of the total population of these colonies and, if the Aegean Islands are excluded as a special case, the percentage of all foreigners in the Italian colonies was about 1 per cent and of Italians still less.¹² Only about two tenths of 1 per cent of the Italian population was in Italian colonies. Also, in 1931, after a century of occupation of Algeria, in all of the French African colonies, there were only slightly more than 1,500,000 Europeans.

Further data need not be cited. What has been given makes several observations possible. First, it is by no means easy to demonstrate that overpopulation or population pressure exists in an absolute sense, and great care is necessary in applying the concept even if it is relative. Second, modern emigration, though seemingly large, has not been great enough to reduce materially the population of the emigrant countries. Third, while this emigration has been going on, birth rates have been declining to a greater or less extent in, at least, some of the emigrant countries, and in many of them there is official and private concern over "race suicide." Fourth, colonies have not in the past been an important outlet for the population of the home countries. This last statement refers to the past, and, of course, there may be a change in the future, but the argument that colonial areas can be extensively "colonized" is a dubious one. Available estimates of the possibilities indicate that the claims made are greatly exaggerated and are for the present unwarranted by the known facts.¹³

MIGRATION REASONS PRO AND CON

Past migrations have occurred for many reasons, among them religious, racial, political, and economic. In earlier centuries emigration was to a considerable extent given financial assistance by gov-

¹² Wright, F. C., *op. cit.*, p. 267. It should be emphasized that there is not a complete agreement in estimates, though none are high. Thus the Italian Library of Information (New York) in *The Italian Empire: Libya*, gives the "Italian population" of Libya as 140,000 and the native population as 780,000. This estimate is presumably for 1940, the date of publication, an after extensive efforts at colonization.

¹³ See, among others, Wright, F. C., *Population and Peace*, *op. cit.*, chap. 8, and Bowman Isaiiah, *Limits of Land Settlement: Abyssinia and Italy* (issued under the auspices of the Royal Institute of International Affairs, London), New York, Council on Foreign Relations, 1937.

ernments, but during the nineteenth century and the early part of the twentieth, the movement was more one of individuals who left their home countries for personal reasons and on their own resources, although transportation companies and prospective employers gave some aid. Their reasons for emigration were often the political, religious, and racial pressures from which the emigrants desired to be free, but economic influences were also present.

Economic Reasons for Migration. To isolate the economic influences is not easy, but some years ago an American economist¹⁴ attempted to ascertain to what extent fluctuations in migration are attributable to fluctuations in employment and, in turn, are an ameliorating or an aggravating factor in employment and unemployment fluctuations. He found "a close relation between the cyclical oscillations of employment and those of immigration and emigration, and a moderately close resemblance in the respective seasonal fluctuations; with considerable reason to believe that this similarity, particularly in the cyclical oscillations, is due to a sensitiveness of migration to employment conditions."

This statement is carefully qualified and is applicable to the past. But in recent years many conditions have changed. Numerous observers urge that the period of extensive economic development has come to an end; that the land frontiers of the world have all been occupied; and that, in the future, economic growth, if it occurs, must depend upon intensive rather than upon extensive efforts. Some even argue that, while the past has been an era of expanding economy, we are now confronted with a contracting or at least a stable economy.¹⁵

Certainly there have been changes, and migrations for the present and in the near future will be affected by them. One such factor was the prolonged and world-wide depression beginning in 1929. Past migrations have been explained in part by the opportunities for individuals to improve their economic condition by moving to other countries where wages were higher. This influence is less powerful during depressions because of a lack of employment oppor-

¹⁴ Jerome, Harry, *Migration and Business Cycles*, New York, National Bureau of Economic Research, 1926.

¹⁵ For a thorough analysis of the issues involved, see, for example, Hansen, Alvin H., *Full Recovery or Stagnation?* New York, W. W. Norton & Company, 1938, and also Professor Hansen's presidential address before the American Economic Association, December 28, 1938, in the *American Economic Review*, March, 1939, pp. 1-15. For one of many opposing statements see Moulton, Harold G., *The New Philosophy of Public Debt*, Washington, The Brookings Institution, 1943.

tunities in the immigrant countries, and because the emigrant lacks resources for meeting the expenses of the move. In years to come, this influence may be less important. But as business improvement came from time to time during the thirties, it was most noticeable in some of the countries from which past emigration has been heavy (for example, in Great Britain and Germany) and has unfortunately been related to preparations for war. This, of course, does not encourage emigration.

Costliness as a Bar to Migration. Depressions pass but there are other new elements that are presumably more permanent. One is the heavier expense involved. Emigration has always had its costs but under modern conditions those costs are heavier than in the past because of the larger amount of capital now involved in all lines of production. Fewer of the immigrants of today are from agricultural areas and more often they seek employment in industrial centers than formerly. Even if they undertake agriculture the cost of establishment is high. "The much advertised 'Group Settlement Scheme' in the wetter southwest corner of Western Australia has cost nine million pounds since 1921. The result has been the establishment of about 1,700 settlers on farms of low productive value."¹⁶ This was a cost of about \$26,470 per settler (the pound being converted at \$5.00). The same writer states that it had cost \$42,000 to place each of the 124 poor and discontented settlers in the government project at Theodore on the Dawson River.¹⁷

Costs are high even where the distances are less, as in the Netherlands Indies. One writer says: "In 1928 the recruiting costs for one Javanese laborer to East Sumatra were as high as 125 guilders; a Chinese laborer was even more expensive."¹⁸ Another observes that in 1937 some 4,400 families were transferred from Java to Sumatra at a cost to the government of 200,000 guilders, or 45 guilders per family, the cost in the 1920's having been about 300 guilders per family. These estimates do not include the cost of the irrigation works in the area of settlement.¹⁹

In the years following the Second World War, there will be a strong demand that millions of Europeans and Asiatics be returned

¹⁶ Taylor, Griffith, in *Limits of Land Settlement*, *op. cit.*, p. 217. This volume was published in 1937.

¹⁷ *Ibid.*, p. 220.

¹⁸ Pelzer, Karl J., in *Limits of Land Settlement*, *op. cit.*, p. 190.

¹⁹ Broek, Jan O. M., *The Economic Development of the Netherlands Indies*, New York, Institute of Pacific Relations, 1942, p. 23.

to their former homes or assisted to migrate to other areas. This has stimulated interest not only in the human issues involved but also in the question of the costs of such movements and how they are to be met. In a later chapter, more will be said on this general topic but for present purposes the following quotation is helpful.

The prewar cost of settling 500,000 persons abroad was somewhere near 2 billion dollars or almost \$4,000 per settler. Estimated per capita costs of settling limited numbers of refugees in the Argentine and in Rhodesia exceeded this figure. Palestine costs range from \$2,500 to \$6,000 per settler. The Sousa project in the Dominican Republic contemplates a repayment by those settled there of \$1,600 per settler, although actual costs to date are undoubtedly at a rate considerably in excess of that figure. Estimates made just prior to the war of numbers to be evacuated from Greater Germany alone, including re-evacuation of emigrants still in Europe or the ports, total about 500,000 persons. The amount thus involved spread over a period of time may reasonably total not less than 1 to 1½ billion dollars.²⁰

Still another illustration is the cost of settling Italian colonists in Africa. The Italian Association of Ex-Service Men, which is characterized as "not out to make profits," selected 29,653 acres of fertile land in Ethiopia, assigning 120 acres to each demobilized soldier. The cost per acre, including interest on the loan, was estimated at \$21, a total of about \$2,500 invested per soldier, which the colonist was expected to repay at the rate of \$340 per annum. Also, there was the Balbo Mass Colonization and Development Plan for Libya.²¹ The costs are not presented in the same form as those just given for Ethiopia, but in 1939, there were about 6,000 native and Italian peasant families (50,000 persons) settled in Libya on newly reclaimed agricultural lands. These numbers had accumulated over some years, but the costs of emigration and the settlement of the Italian peasant and his reluctance to move were so great that the Balbo Plan resulted, going into full operation in 1938-39. The costs of the first phase of this plan (1938-39) are given as:²²

Part I	1938	405,888,500 lire
Part II	1939	<u>540,000,000 lire</u>
	Grand Total	945,888,500 lire

²⁰ The Brookings Institution, *Refugee Settlement in the Dominican Republic*, Washington, 1942, pp. 19, 20.

²¹ *The Italian Empire: Libya*, New York, Italian Library of Information, 1940, pp. 62, 63, and 65.

²² *Ibid.*, p. 65.

The first phase cared for 3,600 Italian families on 325,000 acres. Of the total cost, a part, from 135,000 to 185,000 lire per farm, was debited to each farm. Conversion of these lire into dollars means little, but it may be done at 5 cents and at 3 cents, merely to express the cost in a general way. This gives:

	<i>Lira at 5 cents</i>	<i>Lira at 3 cents</i>
Balbo Plan — first phase: Total 945,888,500 lire	\$47,294,425	\$28,376,655
Charges against each farm:		
Average of 160,000 lire	\$8,000	\$4,800

Perhaps still another illustration should be given. Migration and settlement even within the United States is costly. One writer observes that \$2,000 is the amount estimated as essential for the resettlement of a family migrating to the northwestern United States in the thirties;²³ that \$3,000 in cash is needed in the Grand Coulee project to take over an 80-acre irrigated tract, plus \$85 to \$100 per acre for the construction of irrigation works;²⁴ and that "even on lands located in reclamation districts in the West, families nowadays need, perhaps, \$5,000 to get a start as farmers."²⁵

What is true of the costs of placing emigrants who engage in agriculture is even more true if they enter industrial occupations where the investment per laborer is greater. The United States Steel Corporation reported for December 31, 1939, a plant investment less reserve of \$1,122,157,114, or \$5,000 per laborer. More and more the world has passed from an era in which the capital per worker was small, to one in which the tools and machines used by the worker call for a heavy investment. This is true whether the dominant form of organization is "capitalist" or "socialist" or "fascist." So long as it is "capitalist," the primary consideration is that of private profit and the prospects of such profit will determine whether adequate capital will be available in immigrant areas for the support of workers who may go there. If the dominant economic organization is "noncapitalist," the expense of providing the capital will be met on some other basis, but in any case it must be covered. Migration is being determined more and more by the availability of capital and of managerial ability which can and will use the capital effectively. Since in most countries (except India), a diminishing percentage of the population is engaged in agriculture, this tendency is of increasing significance.

²³ McWilliams, Carey, *Ill Fares the Land*, Boston, Little, Brown & Company, 1942, p. 56.

²⁴ *Ibid.*, p. 57.

²⁵ *Ibid.*, p. 340.

Governmental Restrictions. As each immigrant country has noted its growing density of population, there has been a tendency to impose more restrictions upon the entrance of newcomers. These have grown from comparatively mild barriers against paupers, illiterates, criminals, and other objectionable groups to the more stringent regulations that are now very general. Asiatics are debarred from entrance into many countries and in various ways others are restrained from entering. The United States, for example, has a system which assigns to most countries an annual quota. The quotas vary in accordance with national origins and discriminate definitely against the countries of southern and eastern Europe. The Immigration Act of 1921 limited the number of aliens admitted of any nationality subject to the quota law, to 3 per cent of the number of foreign-born persons of such nationality resident in the continental United States as determined by the census of 1910; the population plan of the act of 1924 to 2 per cent according to the census of 1890. In the latter act, the quota of any nationality is computed by applying to 150,000, the ratio between the calculated number of inhabitants in the continental United States in 1920 owing their origin to the nationality concerned, and the total inhabitants of the United States of all nationalities subject to the quota law. The minimum quota for any country is 100. Canada, the other members of the British Commonwealth, and numerous other countries have also imposed restrictions.

There are also in existence some restraints on emigration. The passport system is almost universal, and the tendency for a time by some countries, especially Germany and Italy, to prevent the denationalization of their nationals living abroad, not only added to the opposition of immigrant countries, but was probably something of a deterrent to emigration. Emigrant countries endeavor to prevent the assimilation of their nationals, while immigrant countries are placing more and more emphasis on the importance to them of having their entire population thoroughly adjusted to their customs and institutions.²⁶ Moreover, there has been a definite effort by a few countries to repatriate their nationals who are living abroad.

These tendencies to restrict the freedom of human movement are to be explained in part by somewhat limited influences. Thus, in California there is a fear of the economic competition of Asiatics.

²⁶ Wright, F. C., *Population and Peace*, *op. cit.*, pp. 159 ff., gives a description of these tendencies, which are characterized as "Demographic Imperialism."

Labor unions often oppose immigration on the ground that newcomers increase the supply of labor and help to lower wages. Yet much of the restrictive movement is related to the demoralization after 1918 and to the growth of economic nationalism, and this in turn is an accentuation of many influences that have been developing over decades. What will occur now that the war has ended, no one knows. During its progress forced migration, especially within Europe, occurred on a vast scale; ²⁷ in the United States, more than 100,000 Japanese and Japanese-Americans who lived on the Pacific coast were moved forcibly into the interior.

REFUGEE SETTLEMENT AFTER THE SECOND WORLD WAR

In the years immediately following the Second World War, one of the most complicated tasks is to be that of returning millions of people to the homes from which they have fled or been driven. Some will never return but will endeavor to remain in their new locations. Still others who could not migrate during the war may wish to seek homes in other countries. Reference has already been made to the appalling size and difficulties of the problems thus raised. Religious, political, and racial issues are involved and all of them have economic significance. Yet the numbers who can be satisfactorily returned to their homes or moved elsewhere will be but a small fraction of the many millions throughout the world whom we are now considering. ²⁸

To the economic difficulties involved in such mass transfers a further reference to the difficulties of rapid assimilation should be added. Adjustment to a new environment, and perhaps to new occupations, is in many cases a slow and painful experience and is often retarded by hostility to newcomers in the immigrant countries. Also, the tendency of the governments of some emigrant countries to retain a moral, intellectual, cultural, and political hold over their nationals or former nationals living in other countries adds to the friction. One writer observes: ²⁹

It is, in fact, on the rock of assimilation that the project of a mass migration must founder. . . . If, then, the ultimate aim of international

²⁷ Reveille, Thomas, *The Spoil of Europe*, New York, W. W. Norton & Company, 1941, pp. 48-55; Segal, Simon, *The New Order in Poland*, New York, Alfred A. Knopf, 1942; Munk, Frank, *The Legacy of Nazism*, New York, The Macmillan Company, 1943, chap. III.

²⁸ For a general survey, see The Brookings Institution, *Refugee Settlement in the Dominican Republic*, Washington, 1942, Part I.

²⁹ Wright, F. C., *op. cit.*, pp. 239, 240.

organization is to eliminate the sources of international friction, it would seem to follow that, in present circumstances, wise statesmanship must strive to limit international migratory movements.

SELECTED REFERENCES

The Brookings Institution: *Refugee Settlement in the Dominican Republic*. Washington: 1942.

Carr-Saunders, A. M.: *World Population; Past Growth and Present Trends*. London: Oxford University Press, 1936.

Clark, Grover: *A Place in the Sun*. New York: The Macmillan Company, 1936.

Fairchild, H. P.: *Immigration*. New York: The Macmillan Company, 1925.

Ferenczi, Imre: *International Migrations, Vol. I: Statistics*. New York: National Bureau of Economic Research, 1929.

Ogilvie, Frederick W.: *The Tourist Movement; an Economic Study*. London: P. S. King & Company, 1933.

Thompson, Warren S.: *Danger Spots in World Population*. New York: Alfred A. Knopf, 1929.

Willcox, Walter F., ed.: *International Migrations, Vol. II: Interpretations*. New York: National Bureau of Economic Research, 1931.

CHAPTER 3

THE DISTRIBUTION OF POPULATION

World population is very unevenly distributed, but would any other distribution, if possible, be a material relief to economic strain? It is highly improbable that existing barriers to migration, especially to immigration, will be materially relaxed, but do these obstacles to freedom of movement constitute a real economic grievance? Would their removal and a redistribution of human beings along "economic" lines, raise the standard of living for the crowded low-income countries and perhaps for the world as a whole? There is no easy or complete answer, but a survey of some of the possibilities is worth while.

First to be noticed is that some areas are entirely impossible of settlement and others are nearly so. Three fourths of the earth's surface is water. A very few human beings may live on shipboard but for the most part they must live on land, getting perhaps an important amount of sustenance from the seas, as do the Japanese and others. But of the land area, not all is suitable for human habitation. Some is desert and some is in regions where, because of the latitude or the altitude, the cold or the heat is too intense for human comfort or, more often, for production. Illustrations are the Sahara Desert and the arctic and antarctic regions. Some areas are too dry and others are too wet.

IS FURTHER SETTLEMENT POSSIBLE ?

When due allowance is made for these limitations, the field to be considered is greatly reduced. There is variation in the estimates of the potential areas of arable land, but the following are among the best:

One of these estimates, by O. E. Baker, is presented in Table 12. This table lists only 3,700,000 square miles of land area under cultivation and 4,200,000 square miles as potentially arable, a total of 7,900,000 square miles. If pasture (but arable) land is added, the

TABLE 12
ARABLE LANDS OF THE EARTH
(In millions of square miles)

<i>Lands</i>	<i>Tropical and subtropical</i>	<i>Temperate</i>	<i>Total</i>
Too arid for crops	8.0	7.6	15.6
Too cold for crops	—	6.4	6.4
Not arable	10.0	10.0	20.0
Pasture (but arable)	.6	1.5	2.1
Cultivated	1.2	2.5	3.7
Potential arable	<u>3.2</u>	<u>1.0</u>	<u>4.2</u>
Total land area	23.0	29.0	52.0

SOURCE: *Geographic Review*, Vol. 13 (1923), p. 25.

grand total is 10,000,000 square miles, or less than 20 per cent of the total land area of the earth. About two thirds of the cultivated land is in the temperate zone; three fourths of the potentially arable land is in tropical and subtropical regions. Of the total 10,000,000 square miles just mentioned, the division between the two regions is about even. It should not be overlooked that considerable areas in tropical latitudes are located at altitudes that make them comparable in climate to the temperate zones.

Another expert gives the following estimate:¹

	<i>Millions of square miles</i>
Desert areas	8.5 to 15.6
Too cold or too dry for food production	25.3 to 26.0
Totals	33.8 to 41.6

Carl L. Alsberg of the Food Research Institute of Stanford University, who presents these estimates, concludes that some 30,000,000 square miles, or about 55 per cent of the total land area of the earth, are "sufficiently warm and wet for agriculture." It is to be emphasized that there are other areas where the extraction of minerals and other activities may be carried on. But it is also to be noted that these 30,000,000 square miles suitable for agriculture are far from uniform in their productive possibilities. They range from the semiarid regions adjoining deserts to the most fertile of the agricultural areas in the temperate zones. Alsberg divides them into (1) the semiarid areas, (2) the rainy hot forests, (3) the wet-and-dry hot country, and (4) the temperate agricultural areas. Admitting the impossibility of calculating with accuracy the land

¹ Alsberg, Carl L., in *Limits of Land Settlement*, New York, Council on Foreign Relations, 1937, p. 33.

in each of these categories, he nevertheless suggests that there are only "about 10 million square miles of land that are already in use or that might be hoed, spaded or plowed." He goes on to observe that if this total arable land is 10,000,000 square miles, or 6,400,000,000 acres, there would be 3.1 acres of arable land for each of the 2,000,000,000 persons in the world. This is aside from nonarable land that might be used for grazing and for tree crops.²

The world distribution of arable lands is shown in Figure 8. This map may be compared with Figure 1, which shows the distribution of world population. It is to be noticed that there is a considerable correspondence between the two. People live where food production is possible. The largest areas of dense population are in the Northern Hemisphere and are of two types. In western Europe and in the eastern United States economic activity is chiefly industrial. In eastern and southern Asia it is chiefly agricultural.

Another authority, Griffith Taylor, also has made an estimate of the potential population maximums of several areas.³ Like other careful students, he makes his assumptions specific:

Assuming the rather low standards of living which obtain in Europe in general, we get figures somewhat as follows for the lands with which we are most concerned:

Europe (accepted as standard and "saturated")	500 millions		
Canada	100 millions	Australia	60 millions
United States	500 millions	Siberia	200 millions
Argentina, etc.	100 millions	South Africa	80 millions

It will be noticed that his estimates rest on the assumption that standards of living in the countries named will be those prevailing in Europe. If present standards are maintained (in Canada) "our potential 100 millions for Canada is at once halved." Presumably a similar reduction would have to be applied in the case of several other of the areas mentioned, for instance, in the United States.

Accepting these estimates as the best available, several questions are raised. How much do these areas vary in productive capacity, some, of course, being marginal lands which would pass or tend to pass in and out of use as weather fluctuates, as prices shift up and down, or as other changes occur? In view of the rapid advance in the

² Alsberg, Carl L., in *Limits of Land Settlement*, New York, Council on Foreign Relations, 1937, p. 43.

³ See Weigert, Hans W., and Stefansson, Vilhjalmur, eds., *Compass of the World*, chap. 18, *Canada's Role in Geopolitics*, New York, The Macmillan Company, 1944.



FIGURE 8. World areas of arable agriculture. (From Condliffe, J. B., *The Economic Pattern of World Population*, Washington, National Planning Association, January, 1943, reproduced by permission of Dr. Merrill K. Bennett, Dr. Condliffe, and the Association.)

technology of agriculture, would there be an economic gain in moving large numbers of people from industrial countries to agricultural regions? With the costs of transporting and settling immigrants, which have always been considerable and are so much higher under modern conditions, can the expenses of substantial migration be met? If so, how shall it be done and would the economic gains from doing so make such heavy outlays worth while, even in the long run? Can people now located in the more densely populated regions adapt themselves to other climatic and cultural conditions? And is climate a definite factor in preventing migration?

INFLUENCE OF CLIMATE ON MIGRATION

It is often asserted that migration is limited in amount or that its direction is influenced by the inability of some races to adapt themselves to sharply different climatic conditions. (This contention is often made when the groups cited are actually national rather than racial.) It rests on the view that races, where they can be distinguished, differ in important particulars, other than the more obvious physical characteristics.

It is frequently alleged, for example, that the Japanese are peculiarly unable to adapt themselves to climates greatly different from that of their home country. Two comments may be made. First, although qualitative differences in food are not identical with climatic differences, it is widely believed that some racial, or even national, groups are peculiarly dependent on certain kinds of food. But, says Alsberg,⁴ "there is no evidence whatever that the different races of men have qualitatively different food requirements." It might be added parenthetically, again quoting Alsberg:

Indeed, despite the undoubted inadequacy of diets in many regions with respect to permitting the best health and greatest vigor, they must all be adequate for reproduction; otherwise the aborigines in these regions would have died out. In fact, they seem nearly everywhere to be adequate in energy content.

Second, while climate determines to some extent the kind of food available, its influence is much broader. As Webster defines it, climate is "the general or average condition of a place in relation to various phenomena of the atmosphere, as temperature, moisture. . . .

⁴ See Weigert, Hans W., and Stefansson, Vilhjalmur, eds., *Compass of the World*, chap. 18, *Canada's Role in Geopolitics*, New York, The Macmillan Company, 1944, p. 28.

Climate is the sum and average of the weather, which includes the daily change in temperature, pressure, wind, rain. . . ." That climate is a powerful influence has been amply demonstrated by Ellsworth Huntington,⁵ even though some of his critics believe he has exaggerated his claims. He by no means excludes other factors and contends that civilization depends upon three primary conditions: man's biological inheritance, his physical environment, and his cultural endowment. There are many others who have developed the relation between climate and man.⁶

But there is no basis for the assertion that the Japanese are peculiarly unable to adapt themselves to climates that are markedly different from that of Japan. Within Japan proper, internal colonization is most active in the northern zone where temperatures are extreme. While the contention that the Japanese "as fishermen, are as efficient in the cold and stormy seas off Siberia and Kamchatka as they are in the warm seas of the Pacific Island and Australia"⁷ is not entirely conclusive,⁸ since this northern industry is entirely seasonal (May to August), and the fishermen take with them the food to which they are accustomed, it is still to be noted that Japanese have migrated both to the north and to the south. Incidentally, it may be observed that the Chinese also have moved both north and south. The chief limiting factors under modern conditions are the restrictions imposed by countries of possible immigration and the available capital to finance migration and settlement.

Although climate may not be a peculiar deterrent for any one race or nationality, it is a limiting influence for mankind in general. At any given time it sets sharp limits to habitable areas and as yet it seems to restrict the regions in which human beings can comfortably or safely dwell. Moreover, in the areas that may be called marginal, livelihood is precarious and fluctuating. Cold and heat, excessive moisture, and regularity as contrasted with irregularity of rainfall, are some of the factors to be considered. Such considerations are the basis for the conclusion reached by many students who find not only at present but for many centuries past a close relationship between

⁵ See, among others, his *Civilization and Climate* and *World Power and Evolution*, New Haven, Yale University Press, 1924 and 1919.

⁶ See, among others, Markham, S. F., *Climate and the Energy of Nations*, London and New York, Oxford University Press, 1942 and 1944; Mills, C. A., *Climate Makes the Man*, New York, Harper & Brothers, 1942.

⁷ Lattimore, Owen, in *Limits of Land Settlement*, p. 120.

⁸ Pelzer, Karl J., *ibid.*, pp. 163-164.

climatic conditions and the location of civilization. One writer⁹ believes that the shift in the centers of civilization is to be explained by changes in climate. Another¹⁰ argues that these changes have come with a growth in man's control over climatic conditions and with relaxation in or abandonment of this control. The availability of fuel for artificial heating and the use of this fuel and the wearing of warmer garments, as of wool or furs, for instance, are illustrations. In the twentieth century we are discovering the possibilities of air-conditioning, which may greatly enlarge the areas within which human beings can live and work effectively as well as enhance their productive energy during the seasons and on days when the weather is debilitating.

Yet it is held by some observers there are a few climatic limitations imposed on settlement. For example, even if white people are able to adapt themselves to tropical conditions, they are able to do so only by alteration of their habits to suit the new environment. The issue raised does not seem to be clearly settled, and the political restrictions imposed on migration are an additional barrier to free movement. In any event, there should be recorded the limitations which many scholars believe prevent the permanent settlement of peoples of the temperate zone in areas where the climate may be a serious handicap. One of the analyses is by Dr. Karl J. Pelzer, who believes that the people of the temperate zone can not settle satisfactorily within the areas bounded by the isotherms which mark the boundaries of the tropics that show a mean annual temperature of 25 degrees Centigrade (or 77 degrees Fahrenheit).

LOCATION OF LANDS FOR SETTLEMENT

No accurate statement can be given of the possible areas for settlement, but a little should be said of several regions that are often mentioned as sparsely populated. Among them are Australia, Canada, South Africa, South America, and Siberia. Others might be added but space does not permit a complete survey. In any case, these are among the regions most often mentioned as "underpopulated" and will serve as illustrations of the issues raised.

Perhaps consideration should be given also to the United States. The arguments for doing so include the low superficial density of

⁹ Huntington, Ellsworth, *World Power and Evolution*, New Haven, Yale University Press, 1919.

¹⁰ Markham, S. F., *op. cit.*

population and the high per capita income, which suggest a probable gain through immigration from areas of greater density and lower per capita income. Against its consideration is an argument that admittedly can be raised against proposed migration to some of the other areas mentioned, especially, perhaps, to Canada and to Australia. As settled policy in the United States seems to be firmly against a relaxation of existing immigration restrictions, but one estimate for this area as an outlet has been given.

There is a widely prevalent belief that there are some areas of the world that are "overpopulated" and others that are "underpopulated." Those who hold to this view contend that there would be an economic gain if large numbers were moved from the first group to the second, probably a gain for the world as a whole and certainly a gain for the areas of emigration or the area of immigration or perhaps for both. In the next chapter, the concept of "overpopulation" will be examined more carefully, but first a few of the facts about some of the areas said to be "underpopulated" and hence suitable for immigration should be given.

AUSTRALIA AS A LAND FOR SETTLEMENT

More has probably been claimed for Australia as a destination for immigrants than for any other area on the globe. Its population in 1937 was 6,867,000. One writer,¹¹ after noting rainfall and other limitations that must be considered, stated that "it would seem reasonable to estimate that Australia can support with food from its own soil in the temperate zone four to six times its present population, let us say from twenty-five to thirty-five millions of people." Also, a British expert on population¹² estimates the potential population of Australia, based on the population of corresponding rainfall areas in the United States, at 29,603,000 inhabitants. Still another, a Canadian,¹³ concludes that the south and east of Australia is one of the best areas in the world for white settlement. He continues: "In this quarter of the continent the writer expects that some twenty million will dwell, when Australia is developed to the same extent as the United States. If we adopt the lower standards of Europe and elsewhere, and assume that the coal is adequately used for manu-

¹¹ Thompson, Warren S., *Danger Spots in World Population*, New York, Alfred A. Knopf, 1929, p. 74.

¹² Carr-Saunders, A. M., *World Population*, London, Oxford University Press, 1936, p. 174.

¹³ Taylor, Griffith, in *Limits of Land Settlement*, pp. 225-226.

factures, then there seems no good reason why this figure should not be doubled or trebled."

It will be observed that these estimates are encouraging to those who look to Australia to absorb considerable numbers of immigrants. Also, some of them assume a continuation of the "white policy" regarding population. A few pages later it will be noted that some of the possibility for growth of numbers in Canada depends upon the development of Canadian export trade, a highly important consideration. Similarly, Griffith Taylor, as just quoted, makes his largest estimate dependent upon the assumption that Australian coal "is adequately used for manufactures." A capacity to absorb large numbers of immigrants without highly important qualifications of this kind does not exist.

Limitations of space prevent detailed consideration of settlement possibilities in all sparsely populated regions. Accordingly, a few more paragraphs about Australia will be added which will suggest the approach that should be followed in considering other areas.

That there are many parts of Australia with a very small population per square mile has frequently been observed but not always are the reasons added. Notice first the matter of rainfall. Much of the continent is comparable to the Sahara. Only a small outer fringe (and that only a part of the area) has an average annual rainfall of 30 or more inches and only a part of this has 40 or more inches. Perhaps a third or more has 10 inches or less. This places sharp limits on agricultural use and even on pastoral production. Only a little over 1 per cent of the area is under cultivation and this is perhaps 10 or 15 per cent of the cultivable area.¹⁴

There are limits, even though they can not be precisely stated, to the land that can profitably be brought into use, even if we assume that the greatest of intelligence and the most modern methods can be employed. In Chapter 9, reference will be made to the relative decline of agricultural population in most of the world and the shift to secondary and tertiary occupations. But the possibilities of utilizing more workers in these directions is in turn dependent upon the available natural resources that can be used in industrial production and upon the possibility of finding external markets. "With minerals as with land production, we are driven to the conclusion that past estimates (or oratorical guesses) concerning the natural

¹⁴ Forsyth, W. D., *The Myth of Open Spaces*, Melbourne, 1942, p. 89; also New York, G. E. Stechert & Company, 1942.

resources and the carrying capacity for population possessed by Australia, must be severely scaled down.”¹⁵ If past exports are to be continued and in larger amounts, markets must be found for such products as wool, wheat, gold, meat, butter, hides and skins, flour, fruits, lead, and sugar.

CANADA AS A LAND FOR SETTLEMENT

The population of Canada is only 1.2 per square kilometer of superficial area as contrasted with 186 for Japan, 138 for Italy, 83 for India, and 43 for China. But certain limitations are highly important. Only a fraction of the country is “thinly settled” or is a “pioneer belt.”

There is perhaps no better illustration than Canada of the fallacy of using simple arithmetical statements of existing population per square mile (or kilometer) as an evidence of underpopulation or overpopulation. It is true that a Canadian writer¹⁶ has suggested the possibility of a total population of 250,000,000 for that country, but the estimate seems to be only a crude application to Canada of the superficial population density of certain other countries. Much of Canada, especially in the west, is mountainous. Much of it is so far north as to be unsuitable for most economic activities. In many sections the soil is poor. “Where satisfactory land exists (e.g., especially in the Prairie Provinces) . . . it is rarely continuous for long distances. It occurs in the main in comparatively small patches; and, in consequence, the density of population over the whole area will necessarily be low.”¹⁷ There are, of course, the mining and forest industries to be considered, but “the specific problem associated with them, however, is their extreme variability.”¹⁸ This leaves the possibility of expansion in industry.

There are now about 11,000,000 people in Canada. Instead of a potential population of 250,000,000, the number of newcomers who could be admitted is far less. Carr-Saunders holds that of the 3,504,688 square miles, only 1,635,000 square miles are habitable.¹⁹ Another writer, a Canadian, places the limit on population for Canada at 20,000,000 (which would be an increase of only 9,000,000 over present numbers), but, “in any case,” this authority em-

¹⁵ *Ibid.*, p. 107.

¹⁶ Leacock, Stephen, *Economic Prosperity in the British Empire*, Toronto, The Macmillan Company, 1930, p. 50.

¹⁸ *Ibid.*, p. 80.

¹⁷ Mackintosh, W. A., in *Limits of Land Settlement*, p. 74.

¹⁹ *Op. cit.*, p. 173.

phasizes, "the ability of Canada to support a larger population will depend upon the development of markets for Canada's export trade."²⁰ How much any estimate depends upon the assumptions made is shown when this calculation is compared with others, such as those by Griffith Taylor given on page 44, who suggests a potential maximum population of 50,000,000 and 100,000,000, depending upon the standard of living.

AFRICA AS A LAND FOR SETTLEMENT

Africa is a huge continent of more than 30,000,000 square kilometers and a population estimated in 1939 at 157,330,000, which is a gain of 65 per cent from the estimate for 1850. With only about 52 inhabitants per square kilometer, there would seem to be large possibilities for absorption, but most of the area is hot except where high altitude moderates the temperatures.

Generalizations for so vast an area cannot be made.²¹ One estimate, by a German,²² is that the potential "carrying capacity" of Africa is 1,650,000,000, which is more than ten times the present number. But growth depends, first of all, upon physical (especially climatic) and biological factors.

Among climatic factors the most important is the water supply, which in turn is dependent largely, though not entirely, upon rainfall. Exceptions occur where springs and underground water are available or where extensive irrigation is possible from rivers, as in Egypt. One of the acute difficulties is to be found in the variability of rainfall, which is especially great in the Sahara regions (and even farther east in Egypt), where it has been estimated to vary over 40 per cent from normal. Rapidity of evaporation also must be considered. Finally, "a considerable degree of variability (of temperature) is necessary for maximum vigor and energy."

The biological factors are the distribution of tropical diseases, which include malaria, yellow fever, trypanosomiasis (sleeping sickness), and dysentery. Some of these are in turn spread by the

²⁰ Professor Hurd, cited in *Peaceful Change*, New York, Columbia University Press, 1938-39, p. 149, from an unpublished memorandum edited by H. F. Angus, presented by the Canadian Institute of International Affairs to the Tenth International Studies Conference in Paris, 1937.

²¹ For a thorough survey, see Wellington, J. H., "Possibilities of Settlement in Africa," in *Limits of Land Settlement*, pp. 229 ff.

²² Fischer, A., "Zur Frage der Tragfähigkeit des Lebensraumes," in *Zeitschrift für Geopolitik*, vol. 2, 1925, pp. 762-779, 842-858 (cited by J. H. Wellington, *op. cit.*, p. 229).

carrying of their germs by certain classes of mosquitoes and the tsetse fly. The progress made by medical science in reducing human mortality has been remarkable and there is every reason to hope that these scourges will in time be lessened or perhaps eliminated. It is reported, for example, that the number of cases of sleeping sickness throughout the world has declined in recent years.²³ Yet in 1931 it was stated: "All over Uganda, Tanganyika, Northern Rhodesia and Nyasaland, fly areas are increasing, and are having a serious retarding effect upon the economic development of these territories."²⁴ The fly referred to is the tsetse fly.

We may hope that these biological obstacles will be reduced, but time is necessary, and it is foolish to expect that miracles will be accomplished in Africa soon enough to give prompt relief to population pressure which may exist or be thought to exist in other parts of the world. Moreover, it is to be remembered that a reduction in death rates may result in an increase in the life expectancy of natives and bring a consequent growth in their numbers. This would reduce correspondingly the opportunities for immigrants from other continents.

SOUTH AMERICA AS A LAND FOR SETTLEMENT

South America contains much larger areas, certain parts of the eastern and southwestern coast, chiefly in Brazil and Argentina, that are possibilities for settlement. They seem to be the largest and best of the regions to which emigrants might go if such migration is not blocked by obstacles of some other kind, such as immigration restrictions.

SIBERIA AS A LAND FOR SETTLEMENT

Siberia need not detain us since it is so thoroughly a part of Russia, which has rigid barriers against newcomers, that immigration from other countries on an important scale is highly improbable. This abrupt dismissal of its possibilities is hardly consistent with our proposal to survey the physical possibilities regardless of the political and other obstacles. A better reason for giving it so little

²³ Findings of the Matheson Commission as reported in the *New York Times*, August 28, 1939.

²⁴ Gillman, C., "A Population Map of the Tanganyika Territory," *Geographical Review*, vol. 26, 1936, p. 354 (quoted by J. H. Wellington).

attention is that of Professor Bruce Hopper, who observes,²⁵ "The capacity is unquestioned. . . . At present the student is baffled by the fragmentary or vaguely grandiose nature of the information available. Several months' study of such data, which cannot be intelligently integrated, creates in the mind an almost dramatic certainty of a populous future Siberia. But conclusions as to specific population capacity remain elusive."

REDISTRIBUTION OF POPULATION

This brief survey makes it clear that we cannot assume the existence of vast, sparsely populated but highly productive areas to which the inhabitants of more densely populated regions can be hurriedly transferred. "New land will accommodate too slow and small a stream of population to be of real social importance to the countries of origin. . . . Migration is no answer to economic and social strain induced by so-called overpopulation. . . . The hope that it will furnish an offset to a high birth rate is based upon an illusion."²⁶

There are areas which can support more people than are now occupying them. But they are not so vast as is often assumed by noting the crude figures of population density. Many are marginal and could not produce food crops at a cost low enough to compete effectively in a world market against areas now under cultivation. This is important since it is not to be assumed that immigrants will voluntarily go or easily be compelled to go to new homes, if they must confine themselves to an isolated existence and do without all of the comforts and necessities of life other than food. Clothing, shelter, and countless other necessities and conveniences will be expected even by most of the emigrants from countries where low living standards prevail. In many areas where population is sparse and where food can perhaps be produced at low or moderate cost, these other articles can be secured only if the native foodstuffs, the native lumber, minerals, and other products, can be sold in other parts of the world in exchange for the commodities desired.

DEVELOPMENT OF AGRICULTURAL TECHNIQUE

This brings us to a consideration of the development of agricultural technique. The advances made in agrobiolgy and in mecha-

²⁵ In *Limits of Land Settlement*, p. 89.

²⁶ Bowman, Isaiah, in *Limits of Land Settlement*, p. 1.

nized farming are amazing. One agrobiologist²⁷ has presented an astonishing analysis of the possibilities of food production if we could utilize effectively what science now can tell us about effective agriculture. Some of his striking statements are:

We may assign to penultra wheat a presumption of ability to support 11,315 persons per square mile, all deductions made. [page 115]

It requires 32,640 average persons just to saturate one square mile of arable land with a population living at the lowest admissible level of protein intake. For comparison, the average density of population in the five boroughs of the city of Greater New York is hardly 25,000 per square mile. [pages 103-104]

One square mile of such an agrotype as the sugar cane will cover the minimum protein needs of 170,000 persons (in round numbers) for one year. [page 137]

Brief citation of striking passages divorced from their context is not fair to the author quoted, who is careful to make clear his general position in his Introduction: "If all nations provided themselves with adequate agricultures, so that each and every one of them could with ease obtain from its own soil all the food and agricultural raw materials essential for a comfortable national existence, the pressure of population that has now mounted alarmingly in many quarters would greatly abate." He firmly believes that agrobiolgy, if utilized, can bring relief.

But enough is already being done to indicate that the opening of new lands to agricultural production would be a dubious procedure. A century ago it took nearly 60 man-hours to cultivate an acre of wheat. Today, with modern machinery, it takes but 5 man-hours and in some regions only 2 or 3 man-hours. How significant mechanization can be for the United States has been strikingly presented both through scientific analysis and in fiction.²⁸

In the next section of this volume more attention will be given to the areas of agricultural supply, and to markets for grain, cotton, and other products. It is sufficient here to repeat that the possibilities for redistribution of population through migration are far more limited than is often thought. For years after 1929 agriculture was

²⁷ Willcox, O. W., *Nations Can Live at Home*, New York, W. W. Norton & Company, 1935. This author defines the term agrobiolgy as the "quantitative science of plant life and plant nutrition."

²⁸ McWilliams, Carey, *Factories in the Field*, and *Ill Fares the Land*, Boston, Little, Brown & Company, 1939 and 1942; Steinbeck, John, *The Grapes of Wrath*, New York, The Viking Press, 1939.

Huntington, Ellsworth: *Civilization and Climate*. New Haven: Yale University Press, 1924.

———: *World Power and Evolution*. New Haven: Yale University Press, 1919.

Markham, S. F.: *Climate and the Energy of Nations*. London and New York: Oxford University Press, 1942 and 1944.

Thompson, Warren S.: *Danger Spots in World Population*. New York: Alfred A. Knopf, 1929.

Willcox, O. W.: *Nations Can Live at Home*. New York: W. W. Norton & Company, 1935.

CHAPTER 4

POPULATION THEORIES AND POPULATION POLICIES

There has been a rapid increase in world population since 1800, the rate of increase having been especially significant in Europe and in the Americas. In western Europe and in the United States, the gains are to be explained in large measure not by an advance in birth rates but by a decline in death rates. In those areas, there is clearly evident in recent years a downward trend in birth rates and a shift in the age distribution of populations. In some of them, the "net reproduction rates" are so low that numbers may be expected to diminish. If the recent past is a guide to the future there will soon not be even an annual "natural increase" but a stationary or perhaps declining population.

In eastern and southeastern Europe and in Asia, net reproduction rates are higher than unity by amounts that vary from one area to another. In some of the countries, birth rates are declining but death rates are also falling and the indications are that their populations will increase for many years before becoming stationary. The view is often upheld that there is an inverse relation between birth rates and incomes, a subject that will be considered later. But even if incomes should rise and birth rates fall, there would be no decline in total numbers for many years. The falling death rate or the increase in life expectancy means that total numbers will grow with larger percentages of the total in the higher age brackets.

In Asia and in the Soviet Union are to be found some 60 per cent of the total population of the world and it is in these same areas that increases probably will occur. In western and northwestern Europe and in the United States, the peak in numbers will presumably soon be reached. As this comes to be realized much concern is expressed over the future and many policies have been adopted with a view to stimulating marriages and births.

Policies for increasing the birth rate should be surveyed with a view to deciding what prospect there is of securing through them the

results that are sought. Before coming to a decision, however, one or two observations are pertinent. The first is that much of the concern expressed arises from the strong conviction in each country that it will be placed at an economic or perhaps a military disadvantage if its numbers decline. Often, too, this is more or less related to the belief common in each national group that it is in some way superior to others. A second observation is that general reactions are for the most part not a result of careful analysis but rest on a body of ideas that may or may not be pertinent at the present time. There is a disposition to accept uncritically certain attitudes toward social questions, even after they have been outmoded by the developments of a rapidly changing world.

POPULATION THEORIES

An understanding of present conditions and of the policies that have been or probably will be adopted toward population matters is accordingly dependent on a familiarity with what are known as theories of population.

The Malthusian Theory. First is the attempt to explain the way in which population grows or diminishes. Best known of these theories is that of Thomas Robert Malthus (1766-1834). In the sixth edition (1826) of his work, *An Essay on the Principle of Population as It Affects the Future Improvement of Society*, he summarizes his views in the following propositions:

1. Population is necessarily limited by the means of subsistence.
2. Population invariably increases where the means of subsistence increase, unless prevented by some very powerful and obvious checks.
3. These checks, and the checks which repress the superior power of population, and keep its effects on a level with the means of subsistence, are all resolvable into moral restraint, vice and misery.

The first proposition can scarcely be questioned, since human beings cannot exist in the absence of subsistence which, therefore, sets a maximum limit upon numbers. The second proposition also is correct, if taken as a whole. Its importance depends upon whether the "very powerful and obvious checks" are really present in such force as to be significant. Malthus held that "the ultimate check to population appears then to be a want of food, arising necessarily from the different ratios according to which population and food increase." The third proposition merely enumerates and emphasizes the checks.

Malthus was writing over one hundred years ago. There was just beginning the rapid increase in world population that characterized the nineteenth century. The effects of the Industrial Revolution were becoming apparent, the means of subsistence were growing, and population was multiplying. It was plausible, and perhaps correct, to argue that there was a close correlation between population and subsistence. Also, the other economists of the period were deeply impressed by the failure of advancing productivity to improve the lot of the mass of mankind. More was being produced, wages were not rising, population was increasing.

Food, Population, and Wages. Their speculations led to the formulation of three generalizations, or "laws." One of these was the familiar "law of diminishing returns." This "law" makes it clear that, "in a given state of the arts" and after a certain point has been reached, additional product can be secured only in diminishing increments as additional effort is applied. This may be illustrated by a series such as 2, 4, 6, 8, 10 . . . , in which each term is greater than its predecessor by a constant addition. A second generalization was the theory of population growth. Population, it was argued, tends to increase at a rate that may be illustrated by a series such as 2, 4, 8, 16, 32 . . . , in which each term is greater than its predecessor by a constant multiplier. It accordingly seemed clear that population constantly tends to outrun food supply. Third came the "iron law of wages." As stated by David Ricardo¹ (1817), "the natural price of labor is that price which is necessary to enable the laborers, one with another, to subsist and to perpetuate their race, without either increase or diminution."

This combination of theories led to very pessimistic conclusions. At a given time, wages may be at a subsistence level. Extra effort applied for the purpose of increasing the food supply soon yields less than a proportionate return, as stated in the law of diminishing returns. If an improvement in the arts should add to the amount of food available, population merely increases (the Malthusian theory) until the available sustenance per capita is once more at the subsistence level. No wonder that Thomas Carlyle called political economy "the dismal science."

Modern Technology. Malthus and other writers of his period believed that their theories were merely a statement of the facts, but today it is possible to notice two important developments that have

¹ *The Principles of Political Economy and Taxation*, chap. V.

changed or negated the earlier beliefs. One is an amazing advance in "the state of the arts." Productivity has grown at a pace that no one could have foreseen a hundred or more years ago. This growth has come in all lines of production, but since Malthus referred especially to food it is worth while to notice that one of the most urgent current problems in many parts of the world is that of maintaining the incomes of farmers in the face of a constantly enlarging agricultural output and sagging farm prices. It may be that "population has already overtaken the supply of the means of existence in certain sectors, resulting in the accumulation of dangerous pressures that only doubly or trebly productive agricultures can relieve."² But the same agrobiologist who makes this statement argues that modern science contends "that it requires 32,640 average persons to saturate just one square mile of arable land with a population living at the lowest admissible level of protein intake,"³ and that, after all proper deductions are made from this "theoretical" maximum, still "there will be no physical or biological reason why one square mile of arable land should not support more than ten times the densest population that now exists on the face of the earth."⁴

If this seems extravagant, we may quote another writer,⁵ who says, "all estimates . . . agree that if the available good agricultural land of the world were worked by the best modern methods it would provide a food supply between two and twenty times the amount required" to give the present world population "an optimal food consumption."

A comment on this statement is:⁶

J. D. Bernal has computed from apparently valid data that the cultivation of two billion acres of land by the method now in vogue in Great Britain would provide an optimum food supply for the world's entire population. Two billion acres is less than half the present cultivated area of four billion two hundred million acres, itself hardly twelve per cent of the land surface of the earth.

Even if Willcox and Bernal are correct in their arguments, we are still faced with the facts that human beings do not as yet utilize to

² Willcox, O. W., *Nations Can Live at Home*, New York, W. W. Norton & Company, 1935, p. ix.

³ *Ibid.*, p. 103.

⁴ *Ibid.*, p. 168.

⁵ Bernal, J. D., *The Social Function of Science*, New York, The Macmillan Company, 1939, pp. 346-479.

⁶ Mather, Kirtley F., *Enough and to Spare*, New York, Harper & Brothers, 1944, p. 61.

the full extent the scientific knowledge available, and that modern standards of living include countless other items than food. But, to repeat, modern science has given to the world a productivity, actual as well as potential, enormously greater in all lines than that of only a few decades ago. Later we shall notice that throughout the world millions of people are failing to receive adequate amounts of food, and other millions would gain if the quality of their food could be changed. Yet there exists "overproduction" in agriculture, and in most countries the percentage of the total population engaged in agricultural occupations is declining.

Decline of Birth Rates. The second important development since the time of Malthus is the decline of birth rates, namely, his preventive check. Population growth has not been in accordance with his expectations. Fecundity may or may not have changed, but fertility has clearly declined. The retardation in population growth, together with the advance in "the state of the arts," has resulted in a rise in national incomes to a level far above that of 150 years ago in those countries where modern methods of production have been most fully utilized. This is particularly true of the United States and the industrialized areas of western Europe. It may be that it is neither possible nor desirable to seek for a general law or principle of population growth. Thus, Warren S. Thompson⁷ observes: "It is folly to search for a law of population growth; what should be sought is rather the factors which determine its growth in a particular community at a particular time."

Influence of Income on Birth Rates. One observation may be tentatively presented. The rate of natural increase seems to vary inversely with income. Those countries where the per capita national income is highest are, for the most part, the ones where the birth rates are low. A similar differential between the birth rates of rich and poor has been found within the large cities of Europe. Harold Wright⁸ observes: "At the present time the birth rate is lowest in what are called the upper and middle classes, and rises, generally speaking, inversely with the average earnings of each class in the community." The lowest birth rates (Table 1 in the Appendix) and the lowest net reproduction rates (Table 4 in the Appendix) are in western and northwestern Europe and in the United States, all countries where per capita incomes are at least relatively high, while

⁷ In *Population Problems*, New York, McGraw-Hill Book Company, 1930, p. 37.

⁸ Wright, Harold, *Population*, New York, Harcourt, Brace & Company, 1923, p. 113.

in lower income countries, such as in Egypt and Mexico, birth rates are high and, in a few of them, do not yet show any indications of a decline.

Further support is given to this view by the data for birth rates and incomes within a number of countries. Everywhere these rates are less in the higher income groups than in the lower income groups. Many studies have been made as, for example, the one by Jacques Bertillon for Berlin, London, Paris, and Vienna, for a number of years during the last two decades of the nineteenth century. There were differences in birth rates among the four cities, but in each case the rates regularly declined from the highest rates among the very poor to the lowest rates among the very rich. This is but one of many studies in a wide range of countries and of areas within countries, and for different periods. Everywhere there appears the same negative correlation between income and number of children. The higher the income the lower the birth rate.⁹

Other Influences. Other studies have shown higher birth rates in rural areas than in cities; in some occupations than in others (for example, in coal-mining than in textile-manufacturing); and among those of intense religious faith (especially Catholics) than among others. Only this brief reference to these differentials is necessary. The thoughtful reader will at once realize that these influences overlap in various ways. Thus the tendency for birth rates to be low in cities may be offset by religious beliefs; for birth rates to be high in rural areas may be accentuated or weakened by religious or other influences. Each locality or economic group must be separately examined.

Birth Control. Wherever fertility is below fecundity there are two explanations: (1) what Malthus called "moral restraint," and (2) abortion. Moral restraint must, of course, be interpreted broadly and is chiefly the practice of birth control in its many forms. As a consequence, attempts to raise or to prevent the further decline of birth rates have been directed at these two practices.

Conclusions. The only conclusions that seem warranted may be briefly stated. First, the Malthusian theory as given in a preceding paragraph may be accepted without criticism as "logically sound and consistent."¹⁰ Second, developments since the time of Malthus

⁹ This generalization, however, should be accepted with caution. Joseph J. Spengler in *France Faces Depopulation*, Durham, N. C., Duke University, 1938, summarizes (chap. IV, p. 102) by saying that for France today the relation may be positive rather than negative.

¹⁰ Penrose, E. F., *Population Theories and Their Application*, Stanford University, Calif., Food Research Institute, 1934, p. 30.

have not supported many of the inferences drawn by Malthus and his followers. The "state of the arts" has advanced with great rapidity, and the preventive checks have definitely retarded the tendency of population to increase. Third, future trends cannot be forecast with confidence. If certain assumptions are made, such as those by Kuczynski, Charles, and others,¹¹ it is possible to put down the numbers that will be found in different countries on given future dates. But no one can say with assurance that these assumptions will hold. As Carr-Saunders argues, the present situation is novel in human experience. Knowledge and practice of birth control are spreading. "There are certain urges which lead people to desire children," but it is also true that "the day when all children will be wanted children is certainly coming." The desire for children encounters opposing considerations, which "may be classified under four heads, medical, psychological, economic and social." What will happen as birth rates become more a matter of deliberate control no one can be sure.

One important qualification should be added. What has just been said applies particularly to Western countries. In other areas, as in many parts of Asia, the situation is different. Birth rates are high and incomes are low. Population seems to be very definitely pressing upon the means of subsistence — in India and in China, for instance. The negative checks on population increase are not as yet very much in evidence but the positive checks are strong. Life expectancy is low and famines are frequent. While incomes are rising, the advance as yet is not enough to relieve the pressures. For these areas and some others, it is still well to keep in mind "the law of diminishing returns," the Malthusian theory of population growth, and "the iron law of wages."

POPULATION POLICIES

This brief discussion of population theory is a necessary background for an understanding of the population policies of various governments. Numbers of people in any country are of significance for many reasons: economic, political, military, and others. It is to be expected that governments will concern themselves with and that leaders of thought everywhere will be advocates of the procedure they favor. It is not surprising that the views expressed by some

¹¹ See Chapter I.

will seem strange or even abhorrent to others. British India is an area with a birth rate of 34.1 per 1,000 inhabitants and a death rate of 24.3 per 1,000 inhabitants in 1938. There are 13,800,000 people in the Dacca division of Bengal, or 935 per square mile. Yet Mahatma Gandhi protests birth control as a "sin against God and humanity."¹² Moreover, with so many uncertainties of the kind briefly mentioned, and with so many factors determining public or governmental policy, there are often contradictory measures adopted which are not easy to reconcile. Illustrations are to be found in the efforts of some governments to increase marriages and birth rates, while at the same time alleging population pressure.

Efforts to Control Numbers. It may not be possible to agree on definitions for "overpopulation" or "underpopulation" as absolute concepts, but differences in living standards from one country to another are apparent, and governments will properly undertake to improve conditions within their respective jurisdictions, and in their efforts will endeavor to control numbers. These efforts are of two kinds: to influence the "natural increase" by raising (or conceivably lowering) the birth rate, and to increase or decrease migration. The first of these will be considered in this chapter, the second having been considered in Chapter 2.

Attempts to influence the birth rate are usually directed toward its increase. When overpopulation is claimed, relief is ordinarily sought through emigration. There may be unofficial acquiescence in or tolerance of birth control propoganda and practices, but religious, military, and political considerations usually lead governments to encourage an increase in births.

Many countries attempt to raise their birth rates and in various ways. Entirely aside from the miscellaneous methods employed,¹³ there are two that may be especially examined — encouragement of marriage and encouragement of childbearing. Studies of these methods have led to the general conclusion that they have not

¹² *Liberty Magazine*, August 5, 1939, p. 18.

¹³ For extensive discussions see, among others: Thompson, Warren S., *Population Problems*, New York, McGraw-Hill Book Company, 1930; Glass, D. V., *The Struggle for Population*, London, Oxford University Press, 1936, and *Population Policies and Movements in Europe*, London and New York, Oxford University Press, 1940; Carr-Saunders, A. M., *World Population*, London, Oxford University Press, 1936; and especially Wright, Fergus Chalmers, *Population and Peace*, Vol. 2 of *Peaceful Change*, New York, Columbia University Press, 1938-39 — which is a survey of a discussion of experts at a conference in Paris in the summer of 1937. Also see Hans Staudinger, "Germany's Population Miracle," in *Social Research*, May, 1938, pp. 125 ff., for an interpretation of recent changes in birth rates in Germany.

clearly accomplished their purpose. They may have retarded somewhat the decline in the birth rate, though even this cannot be positively demonstrated. Encouragement of marriages, in Germany after 1933, for example, gave a temporary increase in births, but this increase may perhaps be explained by the fact that a larger number of children are usually born during the first few years of marriage. In turn, the increase in marriages was probably a result of an improvement in economic conditions, more than of government exhortation. A brief account of the methods employed in Italy, France, Belgium, and Germany will make these conclusions clear.¹⁴

Population Control in Italy. Measures taken in Italy have been "repressive" and "positive." The repressive laws have been designed to discourage celibacy and childlessness by special taxation on bachelors and on childless married couples, by laws against birth control propaganda, and by laws against abortion. Positive measures under the Italian fascist government included tax exemptions and tax reductions to decrease the financial burdens on large families; services for the protection of mothers and children, such as maternity insurance; and efforts to increase the proportion of the population living outside urban areas, since rural birth rates are higher than urban.

Results, if there are any direct results, have been meager. The efforts described have been made particularly since 1927. But the average number of marriages in Italy in the years 1922-25 was 325,591 and in 1938 there were 324,843, with 317,820 in 1939, a decline from 377,219 in 1937. The rate of marriage (per 1,000 inhabitants) was 6.8 for 1931-35, 8.7 for 1937, 7.4 for 1938, and 7.3 for 1939. The birth rate, which had been estimated at 31.7 for the period 1911-13, was 29.7 in 1921-25, 26.8 in 1926-1930, 22.4 in 1936, 23.7 in 1938, and 23.4 in 1939. (It fell to 20.2 in 1942.) The excess of births over deaths declined from 19.3 per 1,000 inhabitants in 1911-13 to 13.9 in 1938. The net reproduction rate, which was 1.209 in 1931, was estimated at 1.131 for 1935-37. It is difficult to find any clear evidence that the efforts made in Italy have brought important results. The official position is expressed as follows: "This encouragement is derived not so much from any spectacular rise in the marriage or birth rates as from the avoidance of a marked

¹⁴ The following description depends largely on D. V. Glass and Hans Srauding, whose studies have been cited in the preceding footnote. The vital statistics are from the *Statistical Year-Book of the League of Nations, 1939-40*, and *1940-41, passim*. Other sources are cited on particular points.

facing a reduction in western and northwestern Europe and its growth is slowing down elsewhere.

The data for Germany are of special interest and warrant a few further comments. Several precautions should be observed in their interpretation. First, it is usual for low rates of marriages and of births, prevailing during a business depression or during a war, to be followed by an advance. The marriage rate in Germany fell to 4.1 in 1915 and 1916, rose to 14.5 in 1920, and ranged between 7.1 in 1924 and 9.2 in 1928. There was then a decline to 7.9 in 1932 and a rise to 11.1 in 1934, followed by the rates from 1935 to 1938, between 9.1 and 9.7, with 11.2 in 1939. Allowance should certainly be made for the usual increase as business conditions improved subsequent to the low level of 1932, and it is more than possible that the gain recorded is only slightly attributable to the encouragement given by the government.

A second precaution to be emphasized is that the increase in the birth rate should be judged with due allowance for the tendency of an increase in marriages to bring at least a temporary increase in births. More children are born in the first few years of married life than later. The birth rate in Germany was 39.3 in the period 1876-1880, 35.6 in 1900, and 27.0 just before the First World War. It fell to 14.3 in 1917, rose to 25.9 in 1920, and was 19.6 in 1926. From the low of 14.7 in 1933, it advanced to 20.4 in 1939, a rate still below that of 1921-25. This was far below that of the early postwar period, and only about the same as the 19.6 average prevailing from 1924 to 1928, inclusive. By 1942, and after several years of war, it had fallen to 14.9.

It would be rash to take the view that the efforts thus far made by governments to increase birth rates have been effective. Instead, David V. Glass is probably right in contending that "on the positive side, we cannot learn a great deal from the experiments which have been tried in other countries," but that "on the negative side, however, we can arrive at some important conclusions." The plans tried have not "given sufficient economic inducement to offset the financial burdens of raising a family and the other influences that make for smaller families."

SELECTED REFERENCES

Fairchild, H. P.: *People: The Quantity and Quality of Population*. New York: Henry Holt & Company, 1939.

Glass, D. V.: *Population Policies and Movements in Europe*. London and New York: Oxford University Press, 1940.

———: *The Struggle for Population*. London: Oxford University Press, 1936.

Penrose, E. F.: *Population Theories and Their Application*. Stanford University, Calif.: Food Research Institute, 1934.

Thompson, Warren S.: *Population Problems*. New York: McGraw-Hill Book Company, 1930.

———: *Population and Peace in the Pacific*. Chicago: University of Chicago Press, 1946.

Wright, Harold: *Population*. New York: Harcourt, Brace & Company, 1923.

facing a reduction in western and northwestern Europe and its growth is slowing down elsewhere.

The data for Germany are of special interest and warrant a few further comments. Several precautions should be observed in their interpretation. First, it is usual for low rates of marriages and of births, prevailing during a business depression or during a war, to be followed by an advance. The marriage rate in Germany fell to 4.1 in 1915 and 1916, rose to 14.5 in 1920, and ranged between 7.1 in 1924 and 9.2 in 1928. There was then a decline to 7.9 in 1932 and a rise to 11.1 in 1934, followed by the rates from 1935 to 1938, between 9.1 and 9.7, with 11.2 in 1939. Allowance should certainly be made for the usual increase as business conditions improved subsequent to the low level of 1932, and it is more than possible that the gain recorded is only slightly attributable to the encouragement given by the government.

A second precaution to be emphasized is that the increase in the birth rate should be judged with due allowance for the tendency of an increase in marriages to bring at least a temporary increase in births. More children are born in the first few years of married life than later. The birth rate in Germany was 39.3 in the period 1876-1880, 35.6 in 1900, and 27.0 just before the First World War. It fell to 14.3 in 1917, rose to 25.9 in 1920, and was 19.6 in 1926. From the low of 14.7 in 1933, it advanced to 20.4 in 1939, a rate still below that of 1921-25. This was far below that of the early postwar period, and only about the same as the 19.6 average prevailing from 1924 to 1928, inclusive. By 1942, and after several years of war, it had fallen to 14.9.

It would be rash to take the view that the efforts thus far made by governments to increase birth rates have been effective. Instead, David V. Glass is probably right in contending that "on the positive side, we cannot learn a great deal from the experiments which have been tried in other countries," but that "on the negative side, however, we can arrive at some important conclusions." The plans tried have not "given sufficient economic inducement to offset the financial burdens of raising a family and the other influences that make for smaller families."

SELECTED REFERENCES

Fairchild, H. P.: *People: The Quantity and Quality of Population*. New York: Henry Holt & Company, 1939.

Glass, D. V.: *Population Policies and Movements in Europe*. London and New York: Oxford University Press, 1940.

—————: *The Struggle for Population*. London: Oxford University Press, 1936.

Penrose, E. F.: *Population Theories and Their Application*. Stanford University, Calif.: Food Research Institute, 1934.

Thompson, Warren S.: *Population Problems*. New York: McGraw-Hill Book Company, 1930.

—————: *Population and Peace in the Pacific*. Chicago: University of Chicago Press, 1946.

Wright, Harold: *Population*. New York: Harcourt, Brace & Company, 1923.

PART TWO
NATURAL RESOURCES

CHAPTER 5

CLIMATE

In Part One we have noted that in discussing economic matters it is exceedingly difficult to treat any one topic entirely by itself. Thus in considering human beings — their growth in numbers and their migrations — frequent references were made to the natural resources upon which they must depend. These references were, however, collateral and in Part Two we shall deal with them more specifically.

CAN WE DEFINE “NATURAL RESOURCES”?

To some it may appear strange to ask what are natural resources. The answer seems easy. At once there come to mind such items as soil fertility, forests, deposits of coal, iron, gold, lead, oil, and many others. Why is it not sufficient merely to note that in certain localities these things are to be found? They can be listed in physical quantities, and perhaps these can be brought together and totals given. Maps can be prepared which indicate the location of forests and mineral deposits, the regions where cotton, wheat, coffee, and other commodities are being produced.

The Importance of Demand. All this should be done but there is much more involved. We are studying economics and there are numerous complexities to be considered. Thus, it is quite elementary to point out that the mere existence of a given mineral is unimportant, at least for the time being, if its existence is unknown. But even knowledge of its existence is of no economic significance if it is not desired by human beings. To go further, the existence or even the possession of a mineral for which there is somewhere not only a desire, but also a willingness and ability to purchase, may be quite inadequate under certain circumstances. A common illustration is found in the suggestion that Robinson Crusoe might have discovered on his island a large amount of gold, a mineral greatly desired by people in distant places, who would gladly have bought it. Yet, in

the absence of communication and transportation between Crusoe and the outside world, the gold could not properly have been listed by him as one of his natural resources.

Also, demand is far from constant. Under some circumstances it may be at a certain level as, for example, the demand for gold in the United States before 1933 when each gold dollar contained 23.22 grains of pure gold. After January, 1934, when the dollar had been "devalued" and the legal amount of pure gold in each dollar had been reduced to less than 14 grains, and comparable action had been taken in other countries, there was a sharp stimulus given to the mining of gold. Gold-producing countries like the Union of South Africa found this natural resource of far more importance than before.¹ The value of gold exports from that country rose from £45,136,000 in 1931 to £82,878,000 in 1937. Evidently account must be taken of increases in demand. But there may also be decreases. Natural nitrate was for many years an important resource for Chile, but it declined sharply in significance as the production of artificial nitrates increased.

Technological Changes. Technological changes definitely alter demand. The existence of trees from which latex could be secured was of only minor economic significance until the process of vulcanization was discovered. When this was followed later by the rapid development of the automobile and by other modern inventions, what was not a natural resource, or was at best a minor one, became valuable. Intense strain developed between the United States and Japan because of the belief in the former country that the Japanese might attempt to acquire political control of the Netherlands Indies, which is the main source of supply for natural rubber. This they did in the months following December 7, 1941. Of course natural rubber may in turn diminish in importance if the cost of manufacturing "synthetic" rubber can be sufficiently reduced and to the extent it proves to be a suitable substitute.

The Supply of Resources. These illustrations of the constant alterations in demand are sufficient for present purposes. A few words should be added about supply, which is also an intricate subject. In an earlier chapter, a brief reference was made to the shifting of vast areas of land into and out of use as wind and other forms of erosion alter their cultivability or as prices fluctuate. The economic supply

¹ The reasons for this may not be immediately clear to all readers. The subject is discussed more fully later (Chapter 34).

of land fluctuates within a wide range. It must be emphasized that mere physical existence should not be called supply. As just pointed out, the production of gold was sharply stimulated by the legislation of certain governments which "devalued" their monetary units. There was a rise in the "price" of gold and production was at once increased. Deposits which had little or no value when gold could be sold at no more than \$20.67 per ounce were at once worth developing when the "price" of gold rose to \$35 per ounce in the United States and correspondingly in many other countries.

WHAT ARE NATURAL RESOURCES?

Enough has been said to indicate the impossibility of compiling a permanently fixed list of natural resources. One writer ² has observed:

A man-less universe is void of resources; for resources are inseparable from man and his wants. They are the environment in the service of man.

To be considered for its resources, the environment must be brought into *relationship* to man. Hence the resource concept is *relative*. This relativity is twofold, for the resource aspects of the environment vary not only according to human wants, but also according to the abilities of man to make use of his environment and to shape it to fit his designs. Furthermore, the environment must *function* in the process of human want satisfaction. One could almost say that the environment viewed as resources is a function of human wants and abilities. Hence the resource concept is also *functional*. [Italics are in the original.]

Natural resources, then, are *relative* and *functional*. These abstract characterizations have not been accepted merely for the sake of academic precision. Unless they are kept clearly in mind, analysis will be faulty and conclusions reached will be highly deceptive. Even as we write, the relative importance of any one resource may abruptly change, and carefully considered judgments of today may need revision or may even be rejected tomorrow. A British economist ³ has observed: "The Theory of Economics does not furnish a body of settled conclusions immediately applicable to policy. It is a method rather than a doctrine, an apparatus of the mind, a technique of thinking, which helps its possessor to draw correct conclusions."

² Zimmerman, Erich W., *World Resources and Industries*, New York, Harper & Brothers, 1933, p. 3.

³ John Maynard Keynes in the general introduction he has written for the "Cambridge Economic Handbooks," for example, in Harrod, R. F., *International Economics*, New York, Harcourt, Brace & Company, 1933, p. v.

Climate as a Resource. Among the influences which affect economic life, climate ranks high. In some climates many agricultural products cannot be raised because of heat, cold, dryness, or moisture. Climate, too, has an effect upon human beings, since it determines the effort that must be devoted to producing the appropriate amounts of clothing and shelter and, perhaps, the kind of food that is more suitable in some climates than in others. Climate is not weather but, to quote Webster's definition: "Climate is the sum and average of weather, which includes the daily change in temperature, pressure, wind, rain, etc. The climate shows the general condition, while weather deals with the special instances of changes in the atmosphere."

Only a little reflection indicates that the issues raised by climate are extremely involved. For any given purpose, say the raising of a certain kind of wheat, there must be taken into account not merely the average temperature but its variations throughout the days, weeks, and months; not merely the rainfall but its distribution during the year, since heavy rains within a brief rainy season, even though the yearly total is satisfactory, cannot compensate for long periods in which there is no rainfall. The net result is that only painstaking investigation can make clear the combination of climatic factors suitable for a given activity.

This field of research has been thoroughly covered by modern geographers and in so much detail that we need only refer to their work and summarize a few of their conclusions. In Chapter 3, reference was made to some of these findings, but they may be repeated here with the reminder that heat, cold, moisture, dryness, and so forth, are relative terms, and classifications based upon them, while not arbitrary, are bound to vary from one scholar to another.

The net result, as previously stated, is that of the total land area of the earth only some 30,000,000 square miles, or about 55 per cent of the total, is "sufficiently warm and wet for agriculture." But it must be repeated that these areas range from those on the margin (which is constantly shifting) to other areas where the fertility is of the highest. And, including all this land of various and varying qualities, there are 10,000,000 square miles, or 6,400,000,000 acres, which is about 3.2 acres of arable land per person for a world population of some 2,000,000,000.

Different Climate, Different Products. To a large extent the distribution of population is determined by climate and this in turn is

attributable in part to the greater possibilities of sustenance in some climates than in others. This was particularly true prior to the great development of transportation, which in modern times makes possible the shipment of food and other products from one area to another.

Emphasis should be placed upon the wide variety of food to which human beings have accustomed themselves and which they view as necessities, and to them should be added a long list of agricultural products used for other purposes than for food.

Yet it is not easy, and in some cases it is quite impossible, to distinguish sharply between climate and soil qualities as influences on agricultural production. Constituents of the soil vary from one area to another and from time to time. Careful fertilization may improve the soil, or neglect may result in soil exhaustion. So far as its chemical constituents are concerned, it is not possible to speak, as David Ricardo did, of the "original and indestructible powers" of land. Differences of topography will mean different products from mountainous regions than from plains; while sandy soil is better for melons and sweet potatoes, corn will be raised on the "richer, heavier and more valuable lands."⁴

Control of Climate. Within limits, soil fertility is subject to human influence, if not to complete control. Soils may be analyzed and appropriate fertilizers used, often with spectacular results. To a slight extent, land may be leveled with minor effects on topography. But less can be done to alter climate for agricultural purposes. An alteration in the direction of ocean currents, with consequent effects on wind and moisture, would bring sweeping changes over vast areas, but this has not taken place. Irrigation has supplied adequate water to many arid regions. Ways have been found to raise many products entirely without soil, but as yet on a small scale. Climate is still subject very slightly to human control.

CLIMATE AND AGRICULTURAL PRODUCTIVITY

There is an important relationship between climate and productivity but it is not easily stated. A large quantity of bananas per acre can be raised on certain tropical lands and only a few in Canada. Rice can be grown under certain conditions, and sheep under others, and reindeer under still others. But we cannot learn much of impor-

⁴Smith, J. Russell, *Industrial and Commercial Geography*, New York, Henry Holt & Company, 1925, p. 713.

tance by merely counting the sheep and the reindeer, or noting the number of bananas and the pounds of rice. Comparisons can be made only with the aid of some common unit of measurement. Throughout this volume we are concerned with production and exchange throughout the world; with the economic pressures that make for strain; and with possible ways of relieving those pressures.

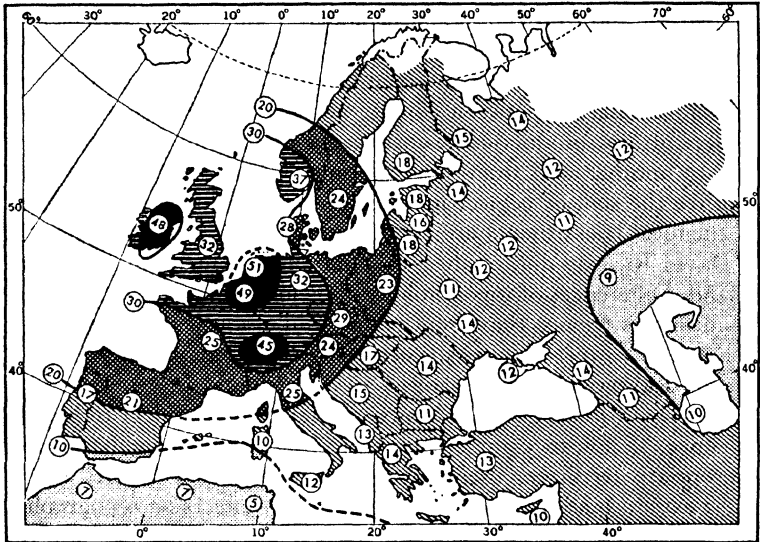


FIGURE 9. European index of agricultural productivity of harvested crops except hay, orchard fruits, nuts and garden vegetables.

Many critics have pointed out the imperfections of a world in which money plays so large a part, and have urged that some other system of production and of distribution than the prevailing one should be adopted. Yet we must employ the tools we have and in any case some of our difficulties would persist under socialism, or communism, or fascism. Costs, no matter how measured, vary from place to place and from product to product, and human desires and needs are more intense for some commodities than for others. Agricultural productivity varies both in time and in locality if expressed in physical units of output, but to these units there must be applied a measuring stick, and the only one that can be employed is their value.

Index Values of Crops. Setting index values for crops has been attempted by Ellsworth Huntington of Yale University, and the

maps reprinted here present some of his conclusions. His method can here be summarized briefly, the reader being referred to the source cited⁵ for a more complete statement. After finding the number of units of weight for the various crops selected and for the different countries where they are raised, and taking 100 pounds as a standard of weight, he computes index numbers of price by

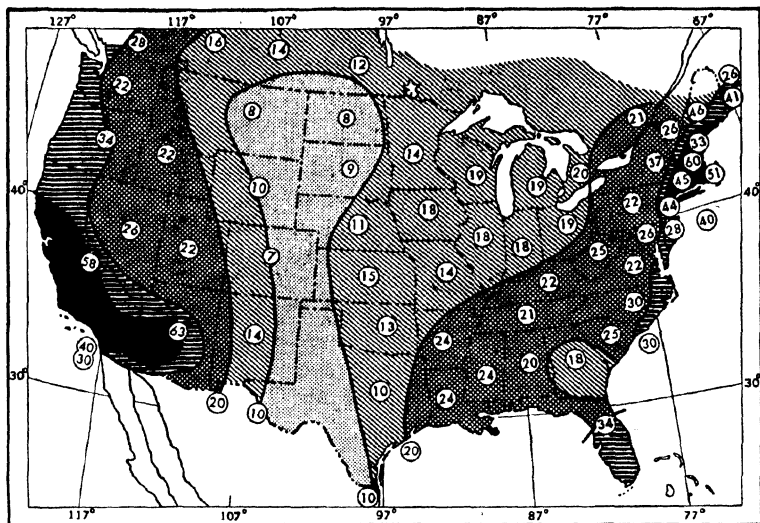


FIGURE 10. Index of agricultural productivity of harvested crops except hay in the United States.

comparing the price of one crop with that of another. It should be emphasized that the numbers thus calculated are not of absolute significance, but merely relative.

Three of Professor Huntington's maps are reproduced.⁶ First is one of Europe (Figure 9), which shows the highest productivity (1) around the North Sea, and (2) "in the colder regions in any given longitude after one gets away from the sea." This suggests to him a positive relation between cool climate and good crops, though there are at least apparent exceptions, to be explained by other factors. Second is a map of the United States (Figure 10) and third

⁵ "Agricultural Productivity and Pressure of Population," *The Annals of the American Academy of Political and Social Science*, July, 1938, pp. 73 ff.

⁶ The maps for Figures 9, 10, and 11 are redrawn from *The Annals of The American Academy of Political and Social Science*, Volume 198, with the permission of the author, Professor Ellsworth Huntington, and of the publishers.

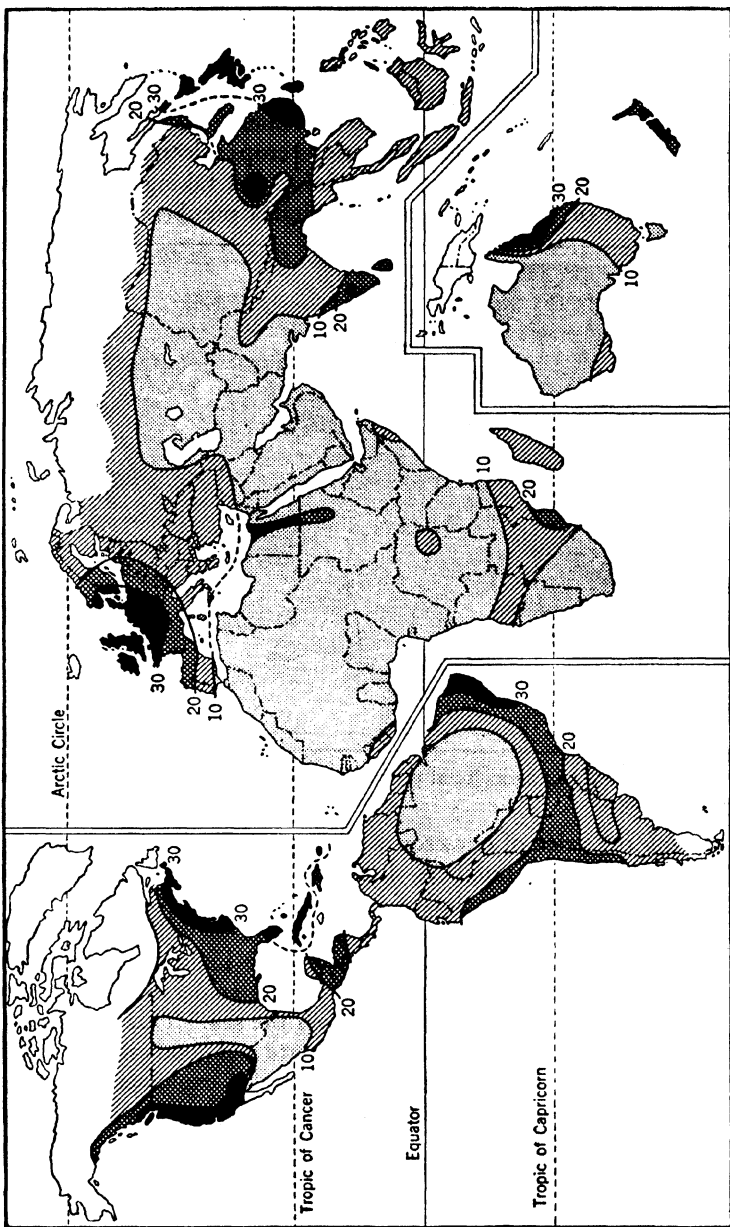


FIGURE 11. World distribution of agricultural activity per acre.

is a map of the world (Figure 11). It need hardly be said that in all of these maps the number recorded for any area does not apply to the area as a whole. Within each of them, there is a wide range of productivity.

Some Comparisons. For present purposes examine especially Figure 11, showing world distribution of agricultural productivity per acre. We have previously noticed the world distribution of population (Figure 1) and the world areas of arable agriculture (Figure 8). There is no exact correspondence between these maps but there is more than a suggestion of a relationship. In northern and western Europe and in the eastern part of the United States, there are to be found density of population and also high agricultural productivity. In eastern Asia, especially in Japan, there is population density and high agricultural productivity but there is also low incomes.⁷ The same general statement may be made for Italy and for India. In Russia, density, income, and agricultural productivity are all low. Other comparisons and contrasts may be noted by the reader.

CLIMATE AND MAN

It is not surprising that there is a relationship between climate and agricultural productivity. Crops depend on temperature, on moisture, and on the characteristics of the soil. To only a slight extent has man yet found ways of influencing these factors on a scale large enough to be important, irrigation being the most significant way. We may next inquire whether climate has any effect on the behavior of human beings. This question can be answered only by answering two others. First, what kind of climate seems most to stimulate human energy? Second, in what parts of the world is this climate to be found?

Again we turn to Professor Huntington, who has given this question one of its most modern expressions.⁸ He is cautious in drawing sweeping conclusions about the significance of his findings, but for our purposes we need not go even so far as he does. In an attempt to determine the relations between climate and what is called "civilization," he conducted three separate though related

⁷ It is to be noticed, however, that, according to Colin Clark, *The Conditions of Economic Progress*, London, Macmillan & Company, Ltd., 1940, p. 114, income in Japan has risen very rapidly for a number of years.

⁸ For his views, see, among others, *Civilization and Climate* and *World Power and Evolution*, New Haven, Yale University Press, 1924.

lines of inquiry. First, he studied the effect of climatic conditions upon physical and mental activity. He examined the productive output of 550 factory workers in Connecticut, 9,000 operatives in Pittsburgh, and 3,000 or 4,000 workers in certain southern cities of the United States and noted carefully the relation between the fluctuations in this productivity and the changes in the weather. This enabled him to reach certain conclusions regarding the relationship between weather and the physical activity of workers. By a similar analysis of the school work of over 1,700 students at the United States Naval Academy at Annapolis and at the United States Military Academy at West Point, he discovered a closely comparable set of facts.

He summed up the results of these investigations in the following conclusions:⁹

The people here considered were physically most active when the average temperature ranged from 60° to 65° F., that is, when the noon temperature rose to 70° or more, while the night temperature fell to 55° or so . . . Mental activity, however, reached a maximum when the outside temperature averaged about 38° F., that is, when there were mild frosts at night. Another highly important climatic condition seemed to be the change of temperature from one day to the next. People did not work well when the temperature remained constant. Great changes were also unfavorable. The ideal condition, or optimum, seemed to be mild winters with some frosts, mild summers with the temperature rarely above 75° F., and a constant succession of mild storms and moderate changes of weather from day to day.

Professor Huntington next ascertained those parts of the earth's surface where climatic conditions agree closely with the ones he had concluded were most conducive to mental and physical vigor as just summarized. The necessary data for this inquiry were available in weather reports, and his findings are presented on a map which is reproduced as Figure 12.

It will at once be noticed that those areas in which, according to his findings, climate is most stimulating, include all or most of western and northwestern Europe and an important fraction of the United States.¹⁰

⁹ *World Power and Evolution*, 3rd ed., pp. 14-15.

¹⁰ Since Professor Huntington has been accused of exaggerating the significance of climate, it should be emphasized that he considers climate as only one of three leading factors: (1) biological inheritance, the undeveloped capacities with which people are born; (2) physical environment in which climate is especially important; and (3) cultural endowment which depends to a considerable extent upon the other two.

If Figure 12, showing the distribution of human energy on the basis of climate, is now compared with the other maps (Figures 9, 10, and 11), certain tentative conclusions may be drawn. Emphasis should be placed upon the word "tentative," since the work of all

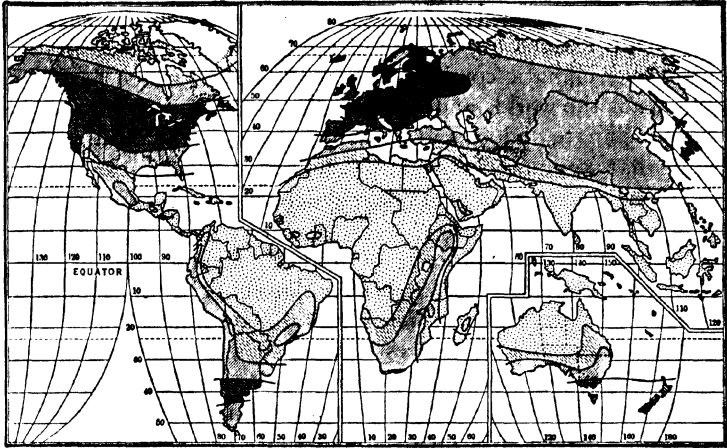


FIGURE 12. The distribution of climatic energy. (Reprinted by permission from *Principles of Human Geography* by Ellsworth Huntington, published by John Wiley and Sons, Inc.)

scholars may be superseded at any time by that of others. For the present, however, we may accept it, making corrections as future inquiries furnish a basis for more accurate statements.

There are certain areas where climate seems conducive to human energy and to high agricultural productivity and where per capita income is at a high level. This is particularly true in western Europe; in the eastern and central parts of the United States; in New Zealand; and in a small part of Australia. In the parts of Europe indicated there is a dense population and this is true also, though to a less degree, in some sections of the eastern part of the United States. It is not the case throughout Australia and New Zealand.

Notice also the favorable climate and high agricultural productivity of Japan with its low (even though rising) income; the favorable climate of Italy (especially in the north) with a fairly high agricultural productivity in the extreme northern part but with a low income for the country as a whole; and the same features for India, with a very low per capita income. On the other hand, observe

the unsatisfactory climate and low agricultural productivity for much though not all of Australia and for a large part of Canada, in each of which population for the country as a whole is sparse but per capita income high.

Another approach is that of a British author, S. F. Markham, who has already been mentioned.¹¹ He reaches the conclusion that "one of the basic reasons for the rise of a nation in modern times is its control over climatic conditions: that the nation which has led the world, leads the world, and will lead the world, is that nation which lives in a climate, indoor and outdoor, nearest to the ideal, provided always that its numbers are large enough to resist invasion by its rivals. Civilization to a great degree depends upon climate control in a good natural climate."

This adds to the influence of natural climate emphasized by Huntington, the effect of control over climate. The best indoor conditions for hard work and efficiency Markham finds are a temperature between 60 and 76 degrees Fahrenheit and relative humidities between 40 and 70 per cent. While Huntington has held that the centers of civilization have shifted through hundreds of years because of climatic changes, Markham argues that the cause has been the gains and losses in control over climatic conditions. Among these controls are the use of appropriate clothing and fuels (with suitable heating systems) and, for the future, the development of air-conditioning.

As an indication of the extent to which the natural climate is conducive to the greatest energy he has also prepared a world map showing the areas where temperatures are most suitable. Areas with these natural conditions have an advantage and may increase this advantage by the appropriate use of controls. Other areas at a natural disadvantage may improve their energy if they have or can acquire fuels, and if by the use of suitable clothing and otherwise they can offset unfavorable climate.

Some Precautions against the Conclusions. Four precautions should be mentioned. The *first* is that the data given are far from perfect, as the scholars who have compiled them are among the first to admit. They are merely the best we have and may be carefully used until better are at hand.

¹¹ See his *Climate and the Energy of Nations* (Oxford University Press). This book appeared first in London in 1943 but a revised and enlarged edition was published in New York in 1944. References in this chapter are to the latter.

Second, there is no reason to assume that the existing world distribution of population, of incomes, and of agricultural productivity are finally and fully determined by "natural law," and that human beings are powerless to effect any changes. What they do suggest is caution in the adoption of public policies that do not take adequately into account the influence of climate and other factors. There are many other factors not pertinent to this chapter, some of which will be considered later and some of which are beyond the scope of this volume as, for example, the psychological.

Third to be remembered, is that in economic and other social fields (and for all the writer knows in natural science as well), there are no simple relationships from cause to effect. Instead, the various influences react upon each other in a bewildering manner. Incomes may be high in certain regions because agricultural productivity is high, which in turn is the result of a favorable climate. But it may be that the climatic limitations have, at least to some extent, been noted, and that agricultural methods have been employed that give high productivity and hence large incomes. Education, popular psychology, religion, the nature of public administration, the force of custom, and freedom from military conflict and especially from invasion, are other factors to be considered. And all of these act and react upon each other. In science one must keep in mind "the interdependence of all phenomena." Nevertheless, it seems clear that climate is a factor that imposes limitations that are especially difficult to overcome. An examination of Huntington's map showing the parts of the world where climate is favorable or unfavorable to productivity (Figure 12) indicates that the Soviet Union is at a serious disadvantage. If this is true, then other factors have more than offset this handicap during the last thirty years.

Fourth, we should not forget that conditions change. Even climate changes over long periods of time and with profound effects.¹² But other factors change too. It may be, for example, that up to the present climate has placed restrictions upon human beings but that these restrictions will be less serious in the future. In Chapter 3 it was pointed out that there are strong reasons for doubting the inability of the Japanese to live and work effectively outside of certain climatic zones. Recently there has appeared a similar and growing doubt about the alleged inability of whites to live and work

¹² See, for example, Huntington, Ellsworth, *World Power and Evolution*, 3rd ed., New Haven, Yale University Press, 1924.

and be as healthy in the tropics as can the natives of those regions. Perhaps they have in the past merely failed to adapt their habits of life to the climatic facts. At any rate, there are many thoughtful persons who advance this view. We may well remember that changes are constantly occurring, and that many things deemed impossible today may be the commonplaces of tomorrow.

Speaking in very broad terms, climate is as yet not subject to human control. But man has shown himself able to make many adjustments that in the aggregate are very considerable. He adapts his food and his clothing. He heats his buildings in winter and now even cools many of them in summer. Scientists are constantly discovering what varieties of flora are suited to particular climates. Wheat, for example, is now grown farther north than was formerly considered possible.

Fifth, not all lines of production are dominated by climate. Rich mineral deposits may exist in regions that are accessible for development but where the climate may be an obstacle to agriculture or to grazing.

SELECTED REFERENCES

Huntington, Ellsworth: *Civilization and Climate*, 3rd ed. New Haven: Yale University Press, 1924.

———: *World Power and Evolution*, 3rd ed. New Haven: Yale University Press, 1924.

Markham, S. F.: *Climate and the Energy of Nations* (revised and enlarged). New York: Oxford University Press, 1944.

Mills, Clarence A.: *Climate Makes the Man*. New York: Harper & Brothers, 1942.

Zimmerman, Erich W.: *World Resources and Industries*. New York: Harper & Brothers, 1933.

CHAPTER 6

LAND AND POWER

WHAT IS LAND?

In considering the possibilities of a redistribution of world population, we noted that only about one fourth of the earth's surface is land area. We might define land in a narrow manner, as does Webster, to include "the solid part of the surface of the earth, as distinguished from water constituting a part of such surface." But it will be better to use a broader description and think of land "as all natural resources and productive power over which possession of the earth's surface gives control."¹

This is a broad definition. It includes not only land in the narrow sense but all natural resources. It may be true that three quarters of the earth's surface is "water," but it does not follow that students of economics should exclude this water area, which is fifty times that of the United States. As a source of food supply, both present and potential, its significance is great.² It is, of course, a source of power since it is from the seas that the sun draws the moisture that makes possible the cultivation of the soil, and we may yet find ways of more satisfactorily harnessing the tides. Scattered through the water are substances which are already utilized in part by man and may in time become more available. For the most part, however, we shall limit our discussion to the soil, that is, to land in the narrower sense, but with some attention to the amount of power available.

IS THERE A FIXED QUANTITY OF LAND?

It is easy but superficial to assume that land is fixed — both in amount and in quality. Discussions of population density and migration often make this assumption, at least by implication. Divide the numbers of inhabitants in various countries by the num-

¹ Bye, Raymond T., *Principles of Economics*, New York, Alfred A. Knopf, 1924, p. 103.

² Smith, J. Russell, *The World's Food Resources*, chap. XV, *The Fish Supply*, New York, Henry Holt & Company, 1919.

ber of square miles (or kilometers) of area and compare the quotients. Or accept without question Ricardo's reference to the "natural and indestructible powers of the soil." Such an approach sheds little light on the strains of modern life. Land is not a fixed quantity and it is not uniform in quality. Its quantity (for economic purposes) is constantly changing and it ranges widely in quality. Moreover, quality is not an unalterable physical fact but something which fluctuates with new discoveries and with new techniques and even to some extent with the fashions.

Physical Changes. Over long periods of time there have been marked changes in land area owing to forces over which man never has had and presumably never can have control. The physical geographers have told us of this and can describe rising and falling coast lines and other shifts that have decreased or increased land areas. To what they tell us, the geologists and other specialists make additions.

But we are not concerned here with changes through the ages, or even through the centuries, but with those through much shorter periods of time. Within a few decades, or even a few years, alterations which either increase or decrease land as an economic factor are occurring and these alterations are related to international strains.

ADDITIONS TO THE WORLD SUPPLY OF LAND

Additions to the physical area of the world's land supply, increasing the number of square miles or kilometers that may be used for productive purposes, will be considered first. These should be distinguished from improved techniques of cultivation. The latter may well be much more important but will be discussed later.

Exploration and Conquest. One of the most important additions to the supply of land for economic use has come through explorations and extensions of political controls. A comparison of the maps of only a hundred years ago with those of today makes this vivid. For example, turn to H. G. Wells's *The Outline of History*³ and notice the map of Africa as it was drawn about the middle of the nineteenth century. Around the coast are indicated a few areas (absolutely large but relatively quite small) which had come under the control of European powers — France, Great Britain, Portugal, the Netherlands, and Denmark. Most of the continent, even includ-

³ New York, 1920, Vol. II, p. 458.

ing much of the coast, was but slightly known. The vast interior is marked "Unexplored" and running across it are the words: "Supposed Mts. of the Moon."

On the next page of the same volume is a map of Africa in 1914. Within some fifty or sixty years practically all of the continent, as Mr. Wells says, had been "mapped, explored, estimated, and divided between the European powers." This "partition of Africa" was accompanied by exploitation of the natives, and the accounts of the methods employed stir one deeply. By 1914, the entire continent is marked on the maps as divided between the great powers. The only sections indicated as "free" are Abyssinia and Liberia and any careful analysis would show that their "freedom" was more or less qualified.

Africa is especially mentioned as the most outstanding illustration of an increase in the "economic" supply of land. This continent had not been suddenly brought into existence but through exploration and conquest it had become an addition to the available supply for productive purposes. Of course the explorations were imperfect and will go on for many years to come, nor did mere political control mean an immediate use of all the resources. But there was a rapid and important addition to the world's supply of land.

Discovery of Resources. Africa, it should be emphasized, is merely the most important but not the only illustration of explorations and extensions. Another addition to natural resources has come about through the persistent research for and discovery of resources hitherto unknown, not only in "new" regions but also in "old" ones. The finding of gold in California about 1849 and later in Alaska, in Australia, and in South Africa; of silver in Nevada and in Mexico; of ores containing iron, copper, lead, and zinc; of accumulations of petroleum in the United States, in Venezuela, in the Caucasus regions, and elsewhere, may also be mentioned. Each of these "finds" and a long list of others were additions to the resources of the world.

Irrigation and Flood Control. The preceding chapter on climate has emphasized the lack of moisture in many regions where annual rainfall is inadequate or so distributed throughout the year as to make agricultural production meager or impossible. This has been corrected in many parts of the world by various methods of flood control and by the introduction of irrigation. As yet the Sahara Desert is but slightly affected, but in many other places as, for example, in the western part of the United States, land that was

nonexistent as an economic factor has been added to our natural resources.⁴

Clearing and Drainage. Much land area is too dry but much also is too wet for productive use. Some is below sea level but has been made highly productive by the construction of dikes, as in the Netherlands. Some is marshy but has been drained, as in Florida and in Italy. As forests are cleared away, lumber resources may be reduced, but much of the land formerly occupied by timber can be cultivated. At times, in fact, this destruction of forests may have been a highly productive act, since timber was so abundant as compared with agricultural crops as to be worth little or nothing.

Improved Accessibility. The mere existence of iron ore, gold, fertile soil, and so forth does not mean that these items are natural resources in any realistic sense. Their existence must be known, which is the reason why attention has been given to exploration and discovery. Also, they must exist in quantities sufficiently large to be important and of a quality that makes them worth going after. But none of them are truly resources unless they are accessible and accessibility involves transportation.

Production is ordinarily defined as the creation of utilities and the process is further described as that of bringing about changes in form, time, place, and ownership. Productive changes in place or location involve moving objects (or perhaps persons) from places where they have no value or relatively little value because they can there satisfy human desires slightly, if at all, to other places where they can be used to better advantage. Thus, coal deposits below the earth's surface have merely a "potential" usefulness until brought to the surface and transported to the places where human beings can use them for heat or for power. Nitrate deposits in Chile, coffee in Brazil, tungsten in China, rubber in the Netherlands Indies, wool and wheat in Australia, are for the most part of value and to be called resources only because they can be transported to other parts of the world. This should be abundantly clear from the extreme fluctuations in the value of these articles in the countries of primary production as shipping facilities and charges go up and down.

This is the reason for stressing the importance of transportation and communication, and for emphasizing their development in the last century. In later discussions of trade, the point will again be

⁴ It should not be supposed that irrigation, or, in fact, most of the other practices we are describing, were unknown centuries or even thousands of years ago.

considered, but here it must be noticed that natural resources as an economic and not as a mere physical fact depend upon accessibility. Only a hundred years ago, the best regular speed for passenger travel on land and sea was about 10 miles per hour; by about 1900 it was about 65 miles per hour on land and about 36 miles per hour on the sea; and by 1938 the best regular speed in the air was 200 miles per hour.⁵ This is a statement of technical gain which might not be an economic gain if this rapid movement were not possible at a sufficiently low cost.

But transportation has been reduced in cost as well as increased in speed. If this had not been true, Professor Ellsworth Huntington's calculations of agricultural productivity given in the preceding chapter and Colin Clark's estimate of income in various countries as stated in Chapter 9, would be very different. Poor as the world is, it would be much poorer if the resources of each area were not accessible to people elsewhere. As long ago as in 1850 this was expressed in what has been called "Lardner's law of squares in transport and trade." As worded by Alfred Marshall,⁶ it is:

Therefore improvements in the mechanism or the organization of transport, which increase the distance over which trade in certain goods can be carried at a given expense, are *prima facie* likely to increase in the square of that ratio the area over which the trade can be conducted profitably.

Technical Changes. A fascinating account of the significance of technological advance is to be found in a volume prepared by the National Resources Committee.⁷ Technology is important in this discussion because of its influence on the supply of natural resources. Natural rubber was of only slight importance until the vulcanization process was discovered and applied; the internal combustion engine extended the manufacture and use of automobiles. Copper ore, though of some importance for centuries, became a resource of greatly enhanced value when the generation and transmission of electric current were developed. Gold has been sought for centuries, but many gold deposits (for instance, in Australia) could not profitably be exploited until the chlorine process was invented or (as in South Africa, for instance) until the cyanide process came into extensive use.

⁵ Staley, Eugene, *World Economy in Transition*, New York, Council on Foreign Relations, 1939, chap. I.

⁶ *Industry and Trade*, London, Macmillan & Company, Ltd., 1919, p. 27.

⁷ *Technological Trends and National Policy*, Washington, National Resources Committee, June, 1937.

REDUCTIONS IN THE WORLD SUPPLY OF LAND

Preceding paragraphs have dwelt upon additions to the world's supply of land or natural resources. It has been emphasized that there has not been in a literal sense any addition to the physical units of land, of minerals, and of other objects. The change has come through the extension of human knowledge and of human ability to exercise controls.

Minerals. But there are subtractions as well as additions to be considered. First to be mentioned is the necessary reduction in certain resources which cannot be replaced. It may be said, although with qualifications presently to be noted, that agricultural crops may be raised year after year on fertile land. But this is not true of mineral and coal deposits. When coal is taken from the mines and consumed, the deposits are not renewed, unless perhaps by natural forces operating over hundreds of thousands or millions of years. As copper and other metals are mined, the amount in the earth is depleted. The same is true of petroleum, of deposits of natural nitrates, and of other resources. There is no renewal possible. Here and there may be found abandoned mines and deserted communities: deposits once rich have been exhausted or the ores still in the ground are so low in metal content that it is no longer profitable to work them.

Forests. Only a word need be said of forests. They can be and have been lavishly or even recklessly used. With minor exceptions, timber "has been mined rather than cropped" and "forest operations have been transitory. Cut out, burn out, and get out, has been the order of the day. Ghost towns, depressed agriculture, distressed social structures, have resulted."⁸

This description was written of the United States but it is true of many other countries. Fortunately, in many of them and recently also in the United States, more farsighted methods are employed. Reforestation is being extensively practiced.

Soil Exhaustion and Erosion. Little is said today of "the natural and indestructible powers of the soil." These powers may be "natural," but they are not "indestructible." They are two in number — fertility and location — and both may be included in the broader term, economic productivity. Location is a physical fact which may

⁸ *Technological Trends and National Policy*, Washington, National Resources Committee, June, 1937, p. 134.

be expressed in degrees of latitude and longitude, but the value of a given location may change very rapidly. In mining towns, building sites sell for very high prices so long as the adjacent mines are productive but become worth little or nothing when the mines are reduced in productivity or are worked out. In our large cities there are many "distressed areas" where land values have sharply declined. Even location as an economic asset is far from indestructible.

Fertility, also, may decline or vanish entirely. Ignorant or careless agricultural methods without proper fertilization and crop rotation may remove from the soil many of the elements needed by wheat, or corn, or cotton, or other products. "Undoubtedly one of the reasons for the fall of many ancient empires was the exhaustion of the soil because of the continuous growth of crops and the carrying away of plant food faster than it was produced by nature, until the land became so unproductive that it was not worth the farmer's time to cultivate it. This condition is to be found in areas around the Mediterranean basin at this day."⁹

Soil exhaustion continues all over the world in varying degrees and its control can only be gradual. "Tillage practices, land utilization and social tenure of land are closely interwoven," and the attack has to be directed along more than one line. For about a century, fertilization other than by animal manures has been increasingly understood and practised and has been referred to as an application of the "balance sheet" theory, since it is an attempt to maintain a "balance" between the elements of the soil. Increasing attention has been given to soil testing, artificial fertilizers, and rotation of crops, as also to proper depth of cultivation and a careful choice of seeds. Tillage as a practical technique has been extensively applied in most parts of the world.

Perhaps the more important but largely unsolved problem of today is presented by soil erosion — the carrying away by water and even by wind of the valuable top layers of land containing the needed plant nutriment. In May, 1934, the people of the United States were startled by the appearance in the air, even as far east as the Atlantic seaboard area, of a fine reddish dust that even dimmed the rays of the sun. It was soil from the great "dust bowl" of the central part of the country. The view generally held is that the high market price for farm products, especially for wheat, that had prevailed during the First World War and, at a somewhat lower level during the suc-

⁹ Smith, J. Russell, *op. cit.*, p. 529.

ceeding ten years, had encouraged the turning over of vast areas of grass land to the raising of grain. The soil thus loosened was actually blown away, leaving for cultivation by the unfortunate farmer only the less fertile layers beneath. Then followed the much publicized efforts through the planting of forest belts and otherwise to prevent a repetition of such disasters.

Erosion may be caused by water as well as by wind. When it has occurred, nature can restore the former fertility but only through a long period of time. While natural forces, in the absence of man, may cause some erosion, in its more serious modern manifestations it is to be explained by the practices of human beings in cutting down forests, in cultivating land formerly fallow, and in other ways upsetting the previous "natural" balance.

Field Marshal Jan Christiaan Smuts is quoted as having said of South Africa that "erosion is the biggest problem confronting the country, bigger than any politics." Whether this is an exaggeration it is not easy to say, but the diminution in the amount of usable land as a result of the forces just described is significant all over the inhabited world except in northwest Europe. But it should be added that in most regions concerted efforts are being made to check its ravages.¹⁰ Probably the difficulties are most serious and progress thus far is least in Africa. The basic influences involved are summarized as follows by the Natural Resources Committee:¹¹ "Except on the relatively small areas of perfectly flat land, any form of agricultural development, however primitive, speeds up the process of erosion."

In the United States, we may not be aware of the vast amount of erosion that has occurred but the Department of Agriculture has this to say:¹²

Surveys of the United States indicate that some 50,000,000 acres of once good crop land has been ruined for further cultivation, while another acreage of equal proportions has been badly damaged. This land in all equals the area of the three great Corn Belt States of Ohio, Illinois and Iowa. In view of this widespread destruction already accomplished, it is significant to note that approximately 75 per cent of our total crop land is now subject to soil erosion and therefore threatened with eventual extreme depletion.

¹⁰ See, among others, Jacks, G. V., and Whyte, R. O., *Vanishing Lands*, New York, Doubleday, Doran & Company, 1939.

¹¹ *Technological Trends and National Policy*, *op. cit.*, p. 122.

¹² *Farmers in a Changing World* Yearbook of Agriculture, Washington, Government Printing Office, 1940, p. 431.

A Widening Base for All Economic Problems. In a survey of world economics, students are confronted with a tendency for what are usually called "problems" to have a constantly wider base. Within a given country, say the United States, transportation facilities of many years ago were a matter of local concern or of no community concern at all. As steam transportation developed and public controls were decided upon, they first appeared upon a somewhat narrow base, that of the states. But in 1887 the Interstate Commerce Commission was set up by Congress and year after year its powers have been increased until today it has a growing amount of responsibility over all forms of transportation, with the exception of air transportation, under supervision of the Civil Aeronautics Board and the Civil Aeronautics Administration. The Federal Communications Commission, created in 1934, has regulatory powers over all wire, radio, and television communication throughout the country.

A similar trend has occurred in connection with the manufacture and distribution of light and power, the misbranding and adulteration of foods, drugs, and cosmetics, hours worked and wages paid, child labor, and other matters. More and more as the intricacies and interrelations of life have increased, there has been this tendency for society, through government, to assume control. As yet, the movement continues not only in the United States but all over the world, with only occasional reactions against it and with no important counterinfluences in sight. In some cases, the costs are too great for private individuals or even corporations. In others, the prospective returns on investments are too slight to attract private enterprise. In still others, there has been a public fear of the power of uncontrolled private monopolies.

Prevention of soil exhaustion and erosion often call for efforts that are too great for private initiative. Thus, extensive cultivation by tenants may lead to "soil butchering." Careless practices in one region may cause floods in another. Destruction of forests in one area may ruin land elsewhere. Even the stimulus of high prices for a short period of time may help to create or at least to extend a "dust bowl." Relations between natives and whites in Africa may affect the extent of soil depletion over a vast continent.¹³ Such influences as these lead to more and more efforts by various governments to extend their authority.

In Part One of this volume the same trends were evident in con-

¹³ See Jacks, G. V., and Whyte, R. O., *op. cit.*, especially chap. XX.

nection with population growth and movement. In later pages we shall notice them when we discuss food supplies, raw materials, foreign trade, and finance. And as we go on, the reader will be impressed with the extent to which, in a rapidly growing number of matters, the base is no longer national but covers many countries or, in some cases, all parts of the world. What is done by Russia with manganese, by the Netherlands Indies with rubber, by Australia with wool, and by all other countries with all or most of their products, are matters of concern not only to themselves but to all of us everywhere.

POWER

It was of conditions in 1848 that John Stuart Mill wrote in his *Principles of Political Economy*:¹⁴

Hitherto it is questionable if all the mechanical inventions yet made have lightened the day's toil of any human being. They have enabled a greater population to live the same life of drudgery and imprisonment, and an increased number of manufacturers and others to make fortunes. They have increased the comforts of the middle classes. But they have not yet begun to effect those great changes in human destiny, which it is in their nature and in their futurity to accomplish.

Mill was writing in the middle of the nineteenth century and was referring to mechanical inventions. He was impressed by the vast possibilities that lay ahead and was concerned because at the time he wrote the beneficent effects of these inventions had not been utilized in ways that aided the great masses of people.

Since he penned these often-quoted words, great changes have occurred. "Mechanical inventions" are a substitute for human power and are operated by human beings. Yet this substitution of machines for men does not of itself guarantee that the ensuing gains will be widely distributed. The failure which Mill deplored gave to radical critics a basis for their theories of crises and of the exploitation of labor.¹⁵

But, to repeat, improvements have come, even though they may still be inadequate. In many countries the working day and the working week have been sharply reduced, and all classes of the population have at their disposal large or small amounts of power that are

¹⁴ Book IV, chap. VI, par. 2.

¹⁵ See the discussion in Polanyi, Karl, *The Great Transformation*, New York, Farrar & Rinehart, 1944.

available to them because human ingenuity has devised ways of making that power usable. The possession and the development of power resources strengthen the countries that have them and use them; their lack is an element of weakness.

Coal. It has been said that all power is derived from the sun. Without its heat and light, there would have been no life of any kind on the earth. There would have been no plants and no accumulation through millions of years of deposits of coal and of petroleum. If the rays of the sun did not draw from the seas the water that is later precipitated as rain and snow, the surface of the earth would be arid. Vegetation upon which all human and other life depends would disappear and there would be, of course, no "white coal" or water power.

But, having made this general statement, we face the more immediate questions of where these deposits of coal and petroleum are found and where it is possible to harness water power. More of these resources are located in some areas than in others. Their presence adds to the possibilities of large income and their absence is an element of economic weakness.

"The total reserves [of coal] are so huge as to cause no worry for the future, but when the situation is analyzed it appears that the higher-grade coals conveniently located for exploitation have very definite limitations."¹⁶ Current production does not, of itself, prove that the best deposits are being mined. There may be deposits not now being utilized from which coal could be taken more cheaply than from mines now in operation, yet it is not unfair to assume that, for the most part, current output reflects at least roughly the location of the coal that can be most cheaply mined.

In 1937, world coal production came chiefly from six countries which produced the following indicated percentages of the total world output:¹⁷

<i>Country</i>	<i>Percentage of world output</i>
United States	34.3
United Kingdom	18.6
Germany	14.2
U.S.S.R.	9.4
Japan	3.5
France	3.4
	<u>83.4</u>

¹⁶ Leith, C. K., *World Minerals and World Politics*, New York, Whittlesey House (McGraw-Hill Book Company), 1931, p. 125.

¹⁷ *Raw Materials and Foodstuffs*, Geneva, The League of Nations, 1939, p. 18.

Over half of the coal output in 1937 was mined in two countries, and over two thirds in three of them — the United States, the United Kingdom, and Germany. These have a huge power base with which they developed their economic strength as world leaders. This they did in the nineteenth and early part of the twentieth centuries.

Production of coal is concentrated, but the reserves of coal are large and are located in many different areas. Among the estimates are: for the United States, 3,420,000,000,000 tons; for the earth as a whole, 7,500,000,000,000 tons.¹⁸ At the rate of production prevailing during the past twenty years, there is enough coal beneath the surface of the earth in the United States to last for seven thousand years, and similar calculations for other areas indicate that this source of power is practically inexhaustible. Yet this should be supplemented with a reminder that the quality varies from high-grade anthracite downward to low-grade sub-bituminous, and that some of it is near the surface while some is far below. As in the case of agricultural land, there is a wide range of productivity of coal lands. How much will be mined at any given time will be determined by the intensity of the demand and by the development of mining technology.

Petroleum. More recently developed but next in importance as a source of power is petroleum. Only a few years ago there was great concern over the world supply and active discussion about the struggle for it among the great powers. Less was heard of this for a few years, although the course of the Second World War was greatly influenced by the location of the most important deposits. Once again it is argued that known deposits are being depleted, and that the discovery of large new sources of supply is improbable.

For 1930, world production of crude petroleum and shale oil is estimated to have been 196,147,000 metric tons, and by 1939, to have been 284,800,000 metric tons. For 1937, production is attributed to six countries in the following indicated percentages:¹⁹

Country	Percentage of world output
United States	60.3
U.S.S.R.	10.6
Venezuela	10.3
Iran	3.8
Netherlands Indies	2.7
Rumania	2.4
	<hr/> 90.1

¹⁸ Mather, Kirtley F., *Enough and to Spare*, New York, Harper & Brothers, 1944, p. 22.

¹⁹ *Raw Materials and Foodstuffs*, *op. cit.*, p. 19.

Nine tenths of the production was from six countries, over four fifths coming from only three — the United States, Russia, and Venezuela. It will be noticed that the only European countries in this list are the Soviet Union and Rumania, although in addition to the Soviet Union there appeared among the leading coal producers the United Kingdom, Germany, and France, and also Japan in Asia. Both Germany and Japan produce moderate amounts of petroleum but are heavily dependent upon outside supplies.

If we turn from production of petroleum to petroleum reserves, the situation is less clear. There are three classes of reserves: proved, probable, and possible. The first includes "the petroleum remaining to be recovered from the natural reservoirs already discovered and explored and developed by wells,"²⁰ and these are estimated for the United States at some 20 billion barrels. Probable reserves are estimated at perhaps 50 to 55 billion barrels and possible reserves at 80 to 90 billion barrels.²¹ Wallace E. Pratt in the article cited presents a table which gives official estimates of reserves in the United States in certain recent years and the subsequent actual production plus the present "proved reserves." This table (Table 15 of this chapter) is reproduced not as a reflection on those who made the estimates but merely to indicate the difficulty of knowing the amount of actual reserves in existence.

TABLE 15
OFFICIAL ESTIMATES OF PROVED PETROLEUM RESERVES IN THE
UNITED STATES
(In billions of barrels)

<i>Date</i>	<i>Total prior production</i>	<i>Estimated reserves</i>	<i>Subsequent actual production plus present proved reserves</i>	<i>Authority</i>
1922	6	5	42	David White, Chief Geologist, U. S. Geological Survey, and American Association of Petro- leum Geologists (joint report)
1926	9	4.5	39	Federal Oil Conservation Board
1932	15	10	33	Federal Oil Conservation Board
1944	48	20	—	Petroleum Administration for War

²⁰ Pratt, Wallace E., vice-president of the Standard Oil Company of New Jersey, *The Earth's Petroleum Resources*, in the *Journal of Business*, University of Chicago, July, 1944, pp. 129 ff.

²¹ Meyerhoff, Howard A., *The Present State of World Resources* in the "Science of Man in the World Crisis" (edited by Ralph Linton), New York, Columbia University Press, 1945, p. 235.

For the world as a whole the "minimum reserves under competent exploration and development" are given by another writer as 58,100,000,000 barrels.²² Still another "educated guess" of the volume in the ground outside of the United States is 150 billion barrels,²³ only enough at the current rate of withdrawal to last about ninety years.

To this there must at once be added the reserves of oil shale (which are enormous) and the rapid development of substitutes for petroleum, since gasoline and other products are now manufactured from coal and from rocks rich in carbon. Technical processes are in actual use, and although costs are said still to be high, it is reasonable to expect further developments that will lower the costs, especially if the reserves of "natural petroleum" show signs of exhaustion.

"*White Coal.*" It is common to speak of water power as "white coal." Coal and petroleum can be and are transported from the localities where they are found to the places where they are consumed — on land and on sea. Water seeking a lower level must be "consumed" where it is and the power generated from it used locally or, if in the form of electric current, transferred elsewhere. Of course both coal and oil may be similarly converted into electric power and then distributed for use over wide areas.

As in the case of coal and petroleum, we make no attempt to present a detailed account of the location of water power nor the many technical questions involved in its use. We are concerned only with a few broad questions. It has been noticed that coal deposits of varying qualities are to be found in many parts of the world, but that over 83 per cent of the current output comes from only six countries, and that of this, 34.3 per cent, or over one third, comes from the United States. Other countries are dependent upon these six and must either import the coal they use or, if need be, work their own deposits at higher cost. This is often done as, for example, by Germany following the First World War when, under pressure to make reparation payments, some in the form of coal, she developed her workings of lignite. In 1913, her output of lignite (converted into coal) was a little more than 10 per cent of the total. By 1925 and 1926, it was more than 21 per cent.²⁴ What was done by Germany can

²² Feis, Herbert, *Petroleum and American Foreign Policy*, Stanford University, Calif., Food Research Institute, March, 1944, p. 22.

²³ Mather, Kirtley F., *op. cit.*, p. 20.

²⁴ *The Economic Forces of the World*, Berlin, The Dresdner Bank, 1927, p. 42. Estimates for both of these years are based on the frontiers of Germany at the later dates.

be done by other countries when circumstances make it advisable, since the estimates of the geological stocks of coal (both certain and probable and down to 6,600 feet) are so large. These stocks are scattered throughout many countries and in all the continents, but with nearly 60 per cent in the United States.

Dependence of most countries on oil is greater since at present over 90 per cent of the output is from six countries, with over 60 per cent, or nearly two thirds, of the current output coming in recent years from the United States. Also to be noticed is that the other important current sources of oil supply are not to be found in the home areas of the great powers of the world but in countries that are or have been (at least, until recently) independent, namely, the Soviet Union, Venezuela, Iran, and Rumania, or in a colonial possession, namely, the Netherlands Indies. The same is true of the geological stocks as recently as in 1933, when it was estimated that over 94 per cent of the total capacity production of oil fields worked at the end of 1932 was to be found in the six countries already named as leading in current production, with the addition of Iraq.²⁵ Since oil is "mined," not grown, these stocks will ultimately be exhausted.

Estimates of all resources alter as more knowledge becomes available. For potential and developed water power, a recent calculation is given in Table 16. About 40 per cent of the potential amounts of hydroelectric energy is in Africa but only a minute fraction of it has been developed. Asia accounts for 22 per cent of the total world potential but has developed only 4 per cent of it. North America

TABLE 16
DISTRIBUTION OF HYDROELECTRIC ENERGY
(By horsepower)

<i>Continent</i>	<i>Potential</i>	<i>Developed</i>
Africa	275,000,000	175,000
Asia	150,000,000	6,000,000
North America	77,000,000	29,000,000
South America	75,000,000	1,300,000
Europe	74,000,000	27,500,000
Australasia	24,000,000	600,000
World	675,000,000	64,575,000

SOURCE: Meyerhoff, Howard A., *The Present State of World Resources*, in the "Science of Man in the World Crisis" (edited by Ralph Linton), New York, Columbia University Press, 1945.

²⁵ Calculated from data in Kranold, Herman, *The International Distribution of Raw Materials*, London, 1938, p. 220; also New York, Harper & Brothers, 1939.

and Europe have harnessed about 40 and 33 per cent, respectively, but there has been relatively little development in South America and Australasia. If particular countries were examined, it would be noted that Italy and Germany have developed their potentials completely, while France, Switzerland, and Japan have gone a long distance toward doing so.

The largest amounts of "white coal" are in areas which have not been industrialized and hence their power has not been harnessed. Development of potential has been greatest in countries such as Germany and France, which have the other requisites for industrial production, or in countries like Italy and Japan, which lack many of these requisites but have for special reasons chosen to develop manufacturing. Industrialized countries have large amounts of coal or import it; consume most of the petroleum output of the world; and are the ones that use their water power most extensively. There may later be a greater use of water power in Africa and in other regions where the potential amounts are enormous, for example, in China where some of the other essentials of an industrial economy are to be found, but the mere existence of potential power is not enough for such development. Raw materials, labor supply, and markets must be accessible and be available on terms which make possible competition with other areas.

Land and Power: Some Conclusions. Land, broadly defined, is not fixed but is constantly fluctuating in amount. As an economic factor, it changes with discoveries and explorations and with the state of the arts. At any given time, it varies in productivity from the marginal or submarginal areas whose worth is zero or less, to those areas where the returns are high. As time passes, the relative importance of these areas is altered under the influence of new discoveries and changes in human demands, with fluctuations in costs and with the multitudinous ups and downs of business. How catastrophic such changes might be is suggested by recent discussions of the possibilities of new sources of power, especially by the use of the atomic energy released from such elements as uranium. The writer does not understand its intricacies, but if we assume that the physicists and the chemists are successful in developing a practical means of releasing and harnessing at low cost such a vast power as this, we would no longer rely so fully on coal, petroleum, and water power. The social and political consequences of such a change would be incalculable. Finally, power is only one of the factors of production, and

is valuable to mankind to the extent that the other factors are available.

SELECTED REFERENCES

Jacks, G. V., and Whyte, R. O.: *Vanishing Lands; A World Survey of Soil Erosion*. New York: Doubleday, Doran & Company, 1939.

The League of Nations: *Raw Materials and Foodstuffs*. Geneva: 1939.

Leith, C. K., Furness, J. W., and Lewis, Cleona: *World Minerals and World Peace*. Washington: The Brookings Institution, 1943.

Mather, Kirtley F.: *Enough and to Spare*. New York: Harper & Brothers, 1944.

Meyerhoff, Howard A.: *The Present State of World Resources in the "Science of Man in the World Crisis"* (edited by Ralph Linton). New York: Columbia University Press, 1945.

National Resources Committee: *Technological Trends and National Policy*. Washington: June, 1937.

Smith, J. Russell: *The World's Food Resources*. New York: Henry Holt & Company, 1919.

Staley, Eugene: *World Economy in Transition*. New York: Council on Foreign Relations, 1939.

Zimmerman, Erich N.: *World Resources and Industries*. New York: Harper & Brothers, 1933.

CHAPTER 7

FOOD

Food is usually and properly referred to as a necessity. Without it, life is impossible. But food is no one single item. It is many items. Wheat, in particular, is not necessary for human existence as is evidenced by the fact that many millions of people consume little or no wheat but eat rice and other grains. Meat may be important in our diet but there are many kinds of meat — beef, pork, mutton, venison, and so forth — with fowl, fish, eggs, and cheese as substitutes.

We might express this human “need” by listing carbohydrates, proteins, and fats, but we are still left with a long list of specific articles of food out of which an appropriate balance in diet may be secured. Counting calories gives us the same result, and even the vitamins, of which today we hear so much, are to be found in many of our common foods as well as in pills and capsules.

What Is a Necessity? As previously pointed out, there is no such thing as an absolute necessity. Anything that can be named is necessary only as it is related to some result. If we assume that the continuance of human life is desirable, and that human beings ought to be kept at some designated standard of physical and mental efficiency, then food in certain quantities and of certain kinds is necessary to this result. But even so, no one item can be named a necessity unless, for example, it be true that life cannot continue without appropriate amounts of water (H_2O) and salt ($NaCl$).

This definition of necessity may seem narrow and pedantic to many readers, but it is well to keep it in mind since popular ideas and public policies often go astray because it is ignored. Yet for many purposes it is quite inadequate. Cold scientific measurements of the needs of a healthy human body may not properly recognize that men and women are strongly influenced by their emotions, and that they form habits which they are reluctant to change. Some years ago, the writer was deeply stirred by reports of food riots in one of the

sections of his home city. His sympathy for the poor was strongly aroused until he learned that the chief grievance was over an advance in the prices of onions and chickens. He thoroughly dislikes the one and is quite ready to buy meat rather than fowl when the price of fowl rises. But the women who protested the prices of these articles had become accustomed to them as a part of their diet and they were conscious of a definite grievance. During the First World War, wheat rather than corn was sent to the people of France, partly because it could be transported more satisfactorily but also because the French were accustomed to wheat.

A necessity can better be defined as anything to whose use people have become accustomed, and which they will surrender with great reluctance. Thus, tobacco, the use of which is deplored by many as expensive and filthy, is to others highly important. Consequently, it may be viewed as a "necessity." This seems to have been the attitude of the British Government during the Second World War when valuable shipping space was allotted for imports of tobacco. This was presumably done not only in order to maintain good will in tobacco-raising countries but also because the people of Great Britain had become so accustomed to the use of tobacco that they would have resented a scarcity or a sharp rise in its price. Under the conditions of the time, tobacco was a necessity.

FOOD DEMAND AND FOOD SUPPLY

A distinction should be kept in mind between desire and demand and need. That hundreds of millions of people throughout the world, including many in high income countries, desire more food and need it for physical efficiency may be assumed. But regardless of desires and needs, the demand for food has certain characteristics that should be emphasized. These characteristics help to explain many of the strains that are so common and many of the public policies that have been adopted toward agriculture.

Inelastic Demand. First is that the demand for food has only a moderate degree of price elasticity. This is to be distinguished from income elasticity. People in higher income groups demand more food than those with lower incomes and also demand more expensive foods, although they ordinarily spend on food a smaller percentage of their total incomes than do poorer people. This is income elasticity. But the food demand of any person with a given income

varies only moderately with food prices. In other words, the demand for food is relatively inelastic.

It is usually and correctly said that demand varies inversely with price — the higher the price the lower the demand and the lower the price the higher the demand. To this generalization exceptions may be found, but it is so widely true that it is a good starting point, provided any significant exceptions are not overlooked. If these changes in demand are quite moderate as prices rise or fall, demand is called inelastic.

This is highly significant for farmers and for others who are engaged in food production. Even food manufacturers, for example, baking companies and sellers of bread at retail, are affected. An increase in the price of a loaf of bread may arouse public resentment. If so, it is because people are so accustomed to eating bread that they will not readily do without it, and if its price rises, they must limit their expenditures in other directions. Some will buy less bread and a few may actually stop their purchases, but most people will eat about as much bread as before. On the other hand, a reduction in the price of bread has a very slight effect on total sales.

Food Supply. On the side of supply there is considerable irregularity. With many food crops, weather is a factor that must be reckoned with and is not subject to human control. Also, agriculture is to a high degree a small-scale enterprise. With so many individual producers, concerted action is not possible, and if controls over production are to be applied, it must be through government action, as in the United States by the Agricultural Adjustment Administration. When prices decline an individual farmer may even increase his planted acreage because he will hope to offset a decline in the per bushel price by the raising of a larger number of bushels.

To this there must be added a consideration that is more important for some food products than for others. Many foods can be raised only after a considerable capital investment which cannot quickly be shifted to other lines of production. Fruit trees reach the bearing stage only after a number of years, and a fruit grower is unwilling to cut down his orchards just because prices have suddenly fallen. Nor can he suddenly add to his fruit crop if prices rise. The same is true for coffee and other products. This is aside from the further factor, that is, that farmers — who are like the rest of us — become accustomed to a given line of farming and, because of inertia or lack of specialized knowledge, are slow to change to other crops.

Food Prices and Production. The net result of these characteristics is that production of food, at least in its primary stages, is still largely beyond control. Combined with a considerable inelasticity of demand, prices fluctuate within wide limits. As a consequence of these fluctuations, there is a widespread and insistent pressure from farmers for government assistance. Some of the efforts made and some of the actions taken in different parts of the world will be discussed later. We shall notice here the extent of the dependence of some countries upon others for their food supplies, and the way in which this raises difficult issues for countries that export food products and for those that import them.

This is not a volume on economic geography and so we shall content ourselves with only a few illustrations. For instance, notice Table 17, comparing the primary production of various groups of commodities for the world as a whole.

TABLE 17
INDICES OF WORLD PRIMARY PRODUCTION, 1929-1938
(1929 = 100)

Year	General index	Agricultural products	Nonagricultural products	Foodstuffs
1929	100	100	100	100
1930	99	101	93	101
1931	96	100	79	100
1932	92	99	67	100
1933	95	101	73	102
1934	97	101	83	102
1935	99	101	90	101
1936	104	104	102	104
1937	110	109	115	108
1938*	108	108	106	109

SOURCE: *Raw Materials and Foodstuffs*, Geneva, The League of Nations, 1939, pp. 11-13.

* Figures based partly on estimates.

World primary production of all the important raw materials and foodstuffs declined during the world depression, falling in 1932 to 92 per cent of the 1929 output. But the output of agricultural products in 1932 was 99 per cent and of nonagricultural products only 67 per cent. Foodstuffs as a group at no time fell below the 1929 level of output. The production of meat did decline a little and that of coffee, tea, and cocoa fluctuated considerably. Yet the general picture is clear. The depression with its lowered prices and the resulting economic pressures did not bring a decline in the world output of food. Prices of food (and other agricultural products) fluctuate

sharply, not only varying directly with demand and inversely with supply, but within wide limits. In the case of many nonagricultural products, prices fluctuate less because demand for them is more elastic, and because output can be and is restricted or increased.

Some large areas are devoted chiefly to agricultural production and the effects of price fluctuations are serious. American students are familiar with the distress in the agricultural regions of the United States during the price decline from 1873 to 1896 and will remember the political turbulence which resulted. Farmers had assumed various mortgage and short-time bank loans which they could not carry as prices fell. Defaults and foreclosures were numerous. Similar difficulties appeared more recently when prices declined in 1920 and again in 1930.

In certain parts of the world, as in Great Britain and in Belgium, the leading activities are nonagricultural. In England and Wales only 8.1 per cent of the population is engaged in agriculture and in Belgium only 19.1 per cent. In Yugoslavia 82 per cent is engaged in agriculture, in Bulgaria 82.4 per cent, and in the Soviet Union 84.9 per cent.¹ In fact, it is possible to view Europe as in two areas, one industrial and the other agricultural, a fact which gave special significance to the proposal for a United States of Europe as, for example, in the movement of some years ago in which Aristide Briand of France was a leader.² These two areas would not be entirely self-sufficient even if combined, but they would be complementary to each other in high degree. This same consideration was a basic one also in the ambitions of the Germans during the Second World War, even though their critics³ insist that their application of the idea was ruthless and was designed to place in servitude other European areas than that of the Greater Reich.

Food Imports. Notice next the very considerable amount of dependence of some areas on imports of food and the extent to which many areas specialize in food production for export, as shown in Table 18 and in Table 7 in the Appendix.

¹ These percentages are of 1921 for Yugoslavia and of 1926 for Bulgaria and for the Soviet Union.

² See Delaisi, Francis, *Les Deux Europes*, Paris, 1929. The views of Delaisi as set forth in this volume, which is not available in English translation, are said to have greatly influenced Briand. Note especially Delaisi's maps, particularly on pp. 24-25 of his volume. Students should not, however, confuse the ideas there pictured with the ideas and practices of Nazi Germany.

³ See, for example, Reveille, Thomas, *The Spoil of Europe*, New York, W. W. Norton & Company, 1941.

TABLE 18

VOLUME OF CERTAIN FOODS IMPORTED (+) OR EXPORTED (-)
BY NINE COUNTRIES IN 1935

(In thousands of metric tons*)

	<i>Wheat</i>	<i>Cane sugar</i>	<i>Coffee</i>	<i>Bananas</i>	<i>Citrus fruits</i>
Argentina	- 3,860.0	- 2.0	+ 22.6	+ 164.0	+ 35.0
Brazil	+ 882.0	- 85.0	- 920.0	- 150.0	+ 106.0
Canada	- 4,509.0	+ 407.0	+ 15.5	+ 59.9	+ 115.0
France	- 120.0	+ 106.0	+ 188.5	+ 154.0	+ 292.0
Germany	+ 146.0	+ 9.0	?	+ 68.0	+ 299.0
Italy	+ 550.0	+ 4.0	+ 40.4	+ 14.3	- 313.0
United Kingdom	+ 5,107.0	+ 1,655.0	+ 12.5	+ 292.0	+ 630.0
U.S.S.R.	- 704.0	- 76.0	- 0.5	—	+ 2.0
United States	+ 1,052.0	+ 2,577.0	+ 795.0	+ 1,248.0	- 231.0

SOURCE: *Raw Materials and Foodstuffs*, Geneva, The League of Nations, 1939, pp. 22 ff.

* 2,352 pounds equals 1 metric ton.

These tables include both large and small countries. First, notice the dependence of industrialized areas on the importation of food. The United Kingdom relies heavily on such imports, since in 1935 she received 5,107,000 metric tons of wheat, 1,655,000 of cane sugar, 12,500 of coffee, 292,000 of bananas, and 630,000 of citrus fruits. Similar dependence, though not for the same amounts, is to be observed in the cases of Austria, Belgium, Denmark, Germany, Japan, the Netherlands, and Switzerland. Even the United States in 1935 imported 1,052,000 metric tons of wheat (in spite of a domestic production of 17,047,000 metric tons in that same year), 2,577,000 of cane sugar, 795,000 of coffee, and 1,248,000 of bananas.

Of course imports must be paid for in some way, and more will be said of payments in Part Four. In the meantime, it is sufficient to emphasize the dependence of these industrialized areas on outside sources of food supply. As has been pointed out by Colin Clark and by other investigators,⁴ the inhabitants of these areas are engaged in secondary and tertiary occupations. A reference to their density of population shows the extent to which they are crowded together as, for example, the 271.6 persons per square kilometer of superficial area in the United Kingdom and the 274.1 persons in Belgium. It is often said (and correctly) that this specialization has resulted in a higher standard of living than could otherwise have prevailed. But what concerns us here is the precarious situation in which such regions are placed. If anything interferes with the importation of

⁴ See Chapters 9 and 10.

food, there may be only inconvenience or annoyance if the shortage is of such an article as coffee, or actual malnutrition or starvation if the item is wheat or sugar. And there may be interruptions. Lack of transportation facilities resulting from, say, a blockade or a reduction in ability to pay for the food, may be tragic. It has been calculated that the people of the United Kingdom depend upon outside sources for perhaps two thirds of their food, and that ordinarily the stocks on hand are no more than enough for two weeks of consumption. It is not necessary to question the precision of these estimates, which are extremely difficult to make.

Clearly the dependence is very great, and inconvenience or suffering will result from a reduction in imports or from any considerable rise in price. On the other hand, many in the industrialized areas have invested heavily in food-producing areas such as Australia and Argentina. A fall in the prices of food (and we have already noticed the extremes within which such price fluctuations occur) lessens the ability of the debtor areas to service their debts and introduces another element of strain.

Food Exports. But the food-exporting countries are also dependent. Argentina in 1935 exported 3,860,000 metric tons of wheat, Canada 4,509,000, the U.S.S.R. 704,000, and Australia 1,904,000. In the same year, Czechoslovakia exported 196,000 tons of cane sugar, Peru 324,000, and Cuba 2,647,000. To these could be added many other countries, especially in southeastern Europe. A crop shortage, perhaps caused by unfavorable weather, is serious for such countries. So, also, is a blockade during war, illustrated tragically during the First World War and again in the Second World War. Attempts of the food-importing countries to attain self-sufficiency, for example, by subsidizing the production of beet sugar, meant distress for the Cubans after 1920. The raising of tariffs on wheat by France, Germany, and other countries just before the Second World War also caused troubles. The fall of prices, especially after 1929, made it difficult for many food-producing countries to pay for their imports of manufactured goods from the industrialized countries, and to service their debts.

Interdependence of Food-producing Countries. The dependence is not entirely that of industrialized-areas and of food-producing areas on each other. In many cases, there is what has been styled monoculture. Specialization is so great that many countries that are primarily engaged in agricultural production emphasize one or a few

items and import others. This is true not merely of food but of many raw materials and even of manufactured products. These will be discussed in later chapters.

Here we may notice only dependence on vegetable products. Cuba exports bananas, cane sugar, and tobacco but in 1935 imported 40,000 metric tons of potatoes and smaller quantities of miscellaneous other foods. Brazil exported citrus fruits, bananas, cocoa, coffee, tobacco, and meat, but imported 882,000 metric tons of wheat and numerous other food items. Peru exported cane sugar and imported wheat. Canada exported wheat, oats, and potatoes as well as meats and dairy products, but relied on outside sources for citrus fruits, bananas, coffee, cane sugar, tea, and other supplies. Similar statements may be made about the United States, the Union of South Africa, Hungary, the Netherlands Indies, and other countries. Perhaps special mention should be made of Denmark with large exports of potatoes, meat, and dairy products but heavy imports of vegetable oils and cereals.

Agricultural and Personal Specialization Questioned. A later section of this volume will give attention to international trade and to theories about it. But the preceding description of food production and of the extent of world interdependence warrants a few comments at this point. It has been customary to dwell on the importance of division of labor and of specialization. Arguments in favor of encouraging each individual, each region within a country, and even whole countries to devote themselves to those occupations or lines of production for which their natural resources or their other characteristics were best adapted, have been strongly urged. Moreover, these arguments have been very persuasive and have been widely accepted.

Yet it is appropriate, in this chapter on food, to raise a few questions which will be raised again in other connections. One is that as yet the people of no country can escape the effects of a war between major powers, and another is that modern war is devastating in its repercussions. It may be, as has often been argued, that interdependence is a deterrent to military conflict, but, if so, its influence has not been strong enough to prevent two world wars within a quarter of a century. It is even possible that this dependence and the fear of its consequences have been among the causes of war.

In any event, there has been much said in recent years in favor of agricultural diversification as contrasted with specialization or monoculture. It has been argued that the individual farmer should not

raise only one crop, but should diversify his production. This rotation will be better for his soil, which is easily exhausted under a one-crop system; some crops may encourage a loosening of top soil and result in extensive soil erosion; and, in any case, prices for particular farm products fluctuate widely, or the weather in a given year may be bad for one crop and not such a serious influence on another. Rotation from one year to the next and diversification each year lessen some of the hazards.

Similarly, it is urged that large areas suffer from too much specialization. Cuba has relied heavily on the production and export of cane sugar. The result was a prosperity during and immediately after the First World War. Unfortunately for Cuba, the resumption of beet sugar production in many other countries (usually with the aid of heavy subsidies) and tariffs on imported sugar soon brought a collapse. Brazil has for years struggled with the problems raised by her dependence on coffee; Denmark relied on the production and sale of meat and dairy products and depended on outside sources for animal foods, but during the two world wars felt the tragic effects of the loss of these imports.

It is true that many of these difficulties are related to war or to the prospects of war. But not all of them. Irregular weather from season to season and the recurrence of periods of prosperity and depression, are other serious factors which are not yet and may never be under human control. Perhaps the arguments for international division of labor and regional specialization have been pushed too far. Possibly specialization should be kept within limits in a world that is so interdependent. The gains that come from division of labor may be offset by disadvantages. Perhaps temporary periods of prosperity are more than counterbalanced by the long-run effects of relying on one or a few products.

These questions will be raised again. In the next chapter we shall survey "raw materials." Many products that have just been discussed, such as sugar, are used as raw materials in manufacturing, while numerous products that are not used for food are agricultural in their origin. Consequently, much said in each of these two chapters applies to products discussed primarily in the other.

World Nutrition. This chapter may close with another reference to the distribution of world population, which is in excess of 2,000,000,000 persons. Of this number it is estimated that there are 1,124,000,000, or 53 per cent of the total, in Asia, where living

standards are probably the lowest in the world, and 154,000,000, or 7 per cent, in Africa, where standards are likewise low or lower. In these two continents, there are thus 1,278,000,000 persons, or 60 per cent of the total population of the world, with incomes that are very meager. Estimates of per capita income after the First World War (in current dollars) are \$89 for Japan (1925) and only \$20 for India (1921-22) as compared with \$749 for the United States, \$604 for Canada, and \$411 for the United Kingdom. Another estimate for India is by the Central Banking Enquiry Committee that "in 1928 the average annual income per individual living on a farm was 42 rupees, or \$15," and this was based on the smaller farm population of 1921.⁵

These low incomes suggest that there is possible a very large increase in the demand for food if the incomes of the 60 per cent of the population of the world living in Asia and in Africa can be raised. There are, of course, some individuals with higher incomes living in these two continents, but there are also many in other parts of the world whose incomes are very low. Before concluding that world agricultural production cannot expand further, there needs to be considered the extent to which there is definite undernourishment throughout the entire world.

Attempts to ameliorate the conditions of agriculture are numerous. Among them, especially in recent years, has been assistance given in the industrialized areas by imposing restrictions on the importation of food from outside sources. This has raised the domestic price, for example, of wheat, and encouraged home production but has raised the cost of living while at the same time creating difficulties in the countries formerly depended upon. Another attempt has been the support of domestic prices by government aid and by restricting production, as in the United States beginning in 1933. This has created a dilemma, as, for example, with cotton, which is not a food but which clearly illustrates the difficulty. The domestic demand (partly though by no means solely because of the higher price) was not adequate to absorb what was still being produced, while the price attained was so high that exports of raw cotton sharply declined.

Much is said of what is sometimes called "agricultural overpopulation." Large numbers relying on the land for a living receive

⁵ Ladejinsky, W., "Agricultural Problems of India," *Foreign Agriculture*, August, 1939, Washington, United States Department of Agriculture, p. 334.

deplorably low incomes, and the general tendency is for a smaller percentage of the total population to engage in agriculture. Yet this occurs in a world where undernutrition abounds. Direct assistance to agricultural groups by subsidies or other devices is merely a palliative and does little or nothing, except perhaps to lessen the strains while real solutions are devised and applied. An increase in the incomes of hundreds of millions in the low-income groups is basic, but the answer is not to retain on the land millions of farmers using inefficient methods of production. This merely holds down their incomes. Assistance by any one country in the form of export subsidies is almost certain to be followed by competitive subsidization by other countries.

Each proposal should fit in with two tests. One is to increase the efficiency of agriculturalists, which in many cases means emphasis on intensive methods. This will result in an increased output at lower costs which will make lower prices possible. The other is to raise the demand for farm products by adding to the purchasing power of consumers. The most promising line of effort is to promote industrialization, since incomes tend to be higher in the industrialized areas. Along with the resulting increase in the demand for food, there may be expected a growth in the use of many farm products in manufacturing where an indefinite expansion is possible. An answer is not to be found in mere temporary assistance to food producers of the sort given between the two world wars.

SELECTED REFERENCES

Brandt, Karl: *The Reconstruction of World Agriculture*. New York: W. W. Norton & Company, 1945.

Mather, Kirtley F.: *Enough and to Spare*. New York: Harper & Brothers, 1944.

Schultz, T. W.: *Redirecting Farm Policy*. New York: The Macmillan Company, 1943.

Schultz, Theodore W., ed.: *Food for the World*. University of Chicago Press, 1945.

Smith, J. Russell: *The World's Food Resources*. New York: Henry Holt & Company, 1919.

CHAPTER 8

RAW MATERIALS

It is not easy -- in fact, it is not possible — to draw sharp distinctions between food and raw materials. We may go even further and say that the same difficulty exists in defining “land” and “power.” Thus moisture, derived directly or indirectly through precipitation, passes through the soil into vegetation, or is drunk by animals many of which are consumed as food by man or by other animals. Moisture might accordingly be considered as a raw material used in the production of food. Petroleum, it may be pointed out, was discussed as “power,” but as it comes from the ground it is not ready for use until it has been refined. The refining process gives not only gasoline and fuel oil of various grades, but a growing list of by-products that are used as “raw materials” in many lines of manufacturing. The same is, of course, true of coal. Those constituents of the soil which are absorbed by plants, may also perhaps be called raw materials in the manufacture of any and all products in which they are utilized.

More obvious is the fact that various products may be and are used, not only as food for human beings, but as feed for animals which are in turn consumed by man. Corn is an illustration. It is an important food for hogs and hence is a kind of raw material needed in the manufacture of pork. Still more to the point is the fact that some products, such as sugar, for example, may be consumed by man as food but may also be used for the manufacture of industrial alcohol. Many other illustrations are possible. We think of the coffee bean primarily as the raw material for a beverage and so classify it as food, but it is now being used also in the making of plastic and synthetic materials.

In the preceding chapters, extensive use has been made of a study published in 1939 by the League of Nations entitled *Raw Materials and Foodstuffs*. In spite of this title, there is in the study only a slight attempt made to draw a distinction. The data are instead for the

most part classified along other lines — apparently a tacit recognition of the difficulty. Accordingly, the grouping of various articles in this volume is somewhat arbitrary and may easily be criticized as not clear-cut. There are, however, enough differences between the groups as here presented to warrant the divisions that are used even though they are chiefly in emphasis.

DEMAND FOR RAW MATERIALS

It has been argued that the demand for food (in general) is inelastic, but a distinction was made between income elasticity and price elasticity. In considering income elasticity, it was pointed out that more food is consumed by those with moderate and high incomes than by those in the low-income groups. The conclusion was drawn that if ways can be found to raise the lowest incomes to higher levels the demand for food will be greatly increased. In other words, income elasticity for food is quite high.

On the other hand, price elasticity for food products is so slight that it may properly be called inelasticity. The result is that along with irregular production and the economic fluctuations known as the business cycle, the prices of food products (basically agricultural products) fluctuate within wide limits. Individuals and groups within a country, and even whole countries or regions that specialize in their production, feel the effects.

Derived Demand. Realizing that sharp distinctions cannot be drawn, it may first be observed that the demand for raw materials is a derived or indirect, rather than a direct, demand. Of course, in so complex a world as this it may be argued that there is much indirection in all demand. Yet the demand for copper, for rubber, or for iron ore is so very indirect that we may emphasize derived demand as an outstanding characteristic of raw materials.

Thus, no one cares for iron ore *per se*, nor for ingots of pig iron, nor for steel rails, nor for freight cars. There is a demand for the iron ore and for their immediate products because from them there ultimately appear certain results. Freight cars and locomotives are used in moving countless commodities from places where they are not wanted or are slightly wanted, to other places where the demand for them is greater. Or the iron transformed into steel is used in manufacturing steel rails, or automobiles, or cook stoves. Some of these final products are "producer's goods" and some are "con-

sumer's goods." Some are very durable, some are slightly so, and some are intermediate in their durability and are often called "semidurable."

Certain consequences follow from these characteristics. In general, the demand for food varies little with price: there is a considerable amount of price inelasticity. This is because food of some sort is a "necessity," and because each of us forms the habit of consuming particular foods, such as wheat bread. But it is also because an item of food such as a loaf of bread lacks durability. It is consumed in a single use. A freight car, however, can be used over and over again through a period of years.

This difference is important. A loaf of bread is consumed today but another is desired for tomorrow. A steel rail or a freight car is in use today but the same rail or car can be used tomorrow and for days and years thereafter. If for any reason, say a business depression, there is a decline in the shipment of goods over a railroad, new cars need not immediately be ordered nor rails be replaced. The old equipment can be used perhaps for a number of years. While the owner of an automobile may ordinarily turn in his car for a new one after using it no more than three or four years, he may, if short of funds, postpone the purchase of a new car for a long time. With variations, this characteristic of producer's goods and of durable or semidurable consumer's goods is found among a vast range of products. As a result, the demand for them and for the raw materials from which they are made has a high degree of irregularity. Even coal, which is completely consumed in one use, is affected. The demand for coal as a domestic fuel is fairly steady, but the demand for coal in industry fluctuates sharply with the demand for manufactured goods in whose production it is used.

But this does not mean that the demand for the various raw materials we are discussing may always be called highly elastic. A sharp decline in the price of steel rails will not of itself cause the railroads to order on a large scale. They will buy heavily when traffic demands are greater but not merely because the price they pay per ton for steel rails has been lowered by a few dollars. The reader will, of course, understand that we are merely using coal and steel and their products as an illustration. With adaptations the same argument applies to the demand for copper, nickel, and countless other articles. Generally speaking, they are the nonagricultural products. As indicated in Table 17 their production declined in 1932

to only 67 per cent of that in 1929. The metals in particular fell to 43 per cent of 1929.¹

Composite Demand. Demand for many raw materials is for a great variety of purposes. Coal is used as fuel in the manufacture of thousands of different articles. The same may be said of iron ore and of copper and of other raw materials. Even the precious metals — gold and silver — are used not only as money but in various lines of manufacturing. If sheep or hogs or cattle are viewed as raw materials, there is to be noted a great variety of uses to which they are put. Thus, sheep are raised for both wool and mutton, cattle and hogs for hides and for meat. A modern packing house, which we often think of as producing only meat, actually produces and sells an increasing number of so-called by-products, among which are oleomargarine, glue, fertilizer, buttons, and many other items.

It is easy to elaborate at length on the conclusions that may be drawn from the fact that a given raw material is used for more than one purpose, but it is sufficient for the present to note that this great variety of uses tends to steady the markets. A decline in the demand for a particular finished commodity is less serious for the primary or the intermediate producer because the demand for other articles in which the raw material is used may not decline or perhaps may increase.

SUPPLY OF RAW MATERIALS

Turning to the supply side, there are also certain characteristics to be noted. We shall comment on only a few, choosing those that are of particular importance in a world-wide survey.

Diminishing Returns. The principle of diminishing returns or of increasing costs has already been mentioned in connection with the discussion of land and of power and perhaps more should have been said about it in the chapter on that subject. Its importance is very great but there should not be exaggeration in its presentation, nor should there be assumed any unvarying rigidity in its recognition and application by human beings.

There is a tendency and a strong one to apply labor and capital first to land and other natural resources where the larger returns per unit can be secured rather than where smaller returns are possible.

¹ See Clark, John Maurice, *Studies in the Economics of Overhead Costs*, University of Chicago Press, 1923, and *Strategic Factors in Business Cycles*, New York, National Bureau of Economic Research, 1934.

Also, this application is rather apt to continue in intensity, at least up to the point where the application of additional labor and capital will not bring a proportionate return in product. The best seams of coal and ore will be worked in preference to the poorer ones. The more fertile soils will be cultivated before the less fertile, and so on. In so far as this tendency prevails, the best resources will be used first and worked more and more intensively until the point is reached where larger return can be secured by applying labor and capital to less productive areas.

But there are many complications. Thus, many of the earlier settlers in the Western Hemisphere landed on the New England coast and it was a long time before they reached and cultivated the much richer areas in the Mississippi valley. For a time it paid to mine certain copper ores but with the discovery of rich deposits in South America and in Africa readjustments occurred in copper-mining. Also there is to be considered the "changes in the arts." The principle of diminishing returns is carefully stated, assuming "a given state of the arts," but the implications of this qualification are often overlooked. The arts are constantly changing and with great and often devastating effects on industry. The discovery of the chlorine process for extracting gold from ore brought a boom to Australia, as did the introduction of the cyanide process later in South Africa and the gold flotation process to other areas. What were relatively poor mining areas became rich, and some that were rich became relatively poor.

Number of Producers. Then there are changes in human institutions. One of them is that individuals find it increasingly difficult to operate independently. They tend instead to co-operate in partnerships and in corporate organizations. Corporations in turn get together as "trusts," or by the formation of holding companies and in many other ways, even in countries like the United States where opposition to such combinations expresses itself through anti-trust laws and otherwise. This "getting together" may be formal or informal. The result may be the formation of clearly monopolistic organizations, or there may be actual "conspiracies in restraint of trade."

In many instances, there may be neither, but merely a small number of entirely separate corporations competing for the market. Each of them supplies an important percentage of the total demand, and a maintenance of large output which can be sold only if prices

are sharply reduced would clearly be disastrous. Each one knows that its actions will seriously affect the entire industry including itself. There is a great deal of "like-mindedness," and consequently each of the small number of competitors is apt to be cautious. All may reduce their output and thus be able to maintain prices.

This is not the case with the primary producers of some raw materials, such as cotton. There are thousands of cotton growers, many of them cultivating small areas. Each of them realizes more or less clearly that his actions will have no influence on the market. Much the same is true of rubber, particularly the output of the native rubber in the Netherlands Indies from which most of the world's supply is secured. Controls, if applied, must come further along through the action of producers of the manufactured products in which the raw material is used, or by export controls enforced by governments.

Indirect Costs. While the fact of diminishing returns should be kept in mind, there is also to be remembered the other and seemingly opposite principle of increasing returns. Given a certain aggregate of assets, a business enterprise endeavors to secure from their use the maximum possible return. This calls for a choice between various scales of operation. This means that the management must be aware of the nature of the demand for the product. If it is highly elastic, a large output may depress the selling price per unit to less than the cost.

But there are various costs, not a single one. Some are direct, that is, they vary directly and almost proportionately with the output. Others are indirect or "overhead," that is, they persist in amount without reference to volume of output. One illustration is interest on bonds. Then there are total cost, average cost, and marginal cost and bulk-line cost. At any given time it is difficult to form a judgment about demand and to calculate these various costs with accuracy. We may in passing remark that modern production requires large investment, and that indirect costs are of increasing significance. One of the results that may often be noticed is that when demand falls output may decline slightly, that is, supply is inelastic, but when demand rises output may increase promptly, that is, supply is elastic.²

² For a more detailed discussion of these points, see, among others, Buchanan, Norman S., *The Economics of Corporate Enterprise*, New York, Henry Holt & Company, 1940, Part Two.

WORLD PRODUCTION OF RAW MATERIALS

This is a partial and a very inadequate statement of some of the influences on the supply of raw materials. In the case of each of these influences, there are numerous facts and forces which should be analyzed separately and in combination for anything like an understanding of what determines output and prices. But it is enough at present. We may now notice a little more fully what actually occurs. In Table 17 on page 109, there were shown indices of world primary production for agricultural products, for nonagricultural products, and for foodstuffs. Table 19 repeats the first of these indices and then gives several others.

TABLE 19
INDICES OF WORLD PRIMARY PRODUCTION, 1929-1938
(1929 = 100)

Year	General index	Textile fibers	Rubber (crude)	Wood products	Fuels and power	Metals	Nonmetallic minerals
1929	100	100	100	100	100	100	100
1930	99	99	95	94	94	89	94
1931	96	99	92	83	85	65	78
1932	92	93	82	77	78	43	63
1933	95	101	98	89	82	50	66
1934	97	99	117	98	89	66	76
1935	99	107	101	106	94	79	86
1936	104	120	99	118	103	97	98
1937	110	137	131	129	111	120	107
1938*	108	119	104	119	106	102	107

SOURCE: *Raw Materials and Foodstuffs*, Geneva, The League of Nations, 1939, pp. 11-14.

* Figures based partly on estimates.

A comparison of Table 17 with Table 19 is revealing. With 1929 as 100, the output of agricultural products dropped in only one year and then only to 99 (in 1932), while that of nonagricultural products for six successive years (1930-35) fell below 1929, declining in 1932 by about one third. But among these nonagricultural products, some declined more than others. Textile fibers, which are used largely (but not entirely) in clothing, — a consumer's good that has limited durability — declined only to 93 in 1932 and rose to 137 in 1937. Rubber dropped to 82, wood products to 77, and fuels and power to 78. The most severe decline was in metals, which fell to 43, and in nonmetallic minerals, which dropped to 63. The effect of the depression on producers of raw materials and particularly on the producers of metals and nonmetallic minerals, which are used largely

in the manufacture of durable producer's goods and durable or semidurable consumer's goods, is evident.

Production by Continents. In a world where there is a large amount of geographical specialization, the effects of these fluctuations will vary from one region to another. The impact will not be the same in every region. Some specialize in agriculture, others in manufacturing, and so on: There are differences in the percentages of the population employed in primary, secondary, and tertiary occupations.

TABLE 20
INDICES OF PRIMARY PRODUCTION IN FOUR CONTINENTS
(1929 = 100)

Year	EUROPE (EXCLUDING THE U.S.S.R.)				NORTH AMERICA			
	General index	Food-stuffs	Textile fibers	Metals	General index	Food-stuffs	Textile fibers	Metals
1929	100	100	100	100	100	100	100	100
1930	97	98	96	94	97	103	96	82
1931	96	101	90	68	93	104	116	53
1932	96	103	91	49	84	100	92	27
1933	98	105	99	53	86	100	98	33
1934	101	107	110	64	86	98	78	43
1935	102	106	123	73	85	93	87	54
1936	104	107	137	83	93	96	99	76
1937	108	109	158	101	103	99	139	104
1938	109	111	162	100	95	103	95	66

Year	LATIN AMERICA				OCEANIA			
	General index	Food-stuffs	Textile fibers	Metals	General index	Food-stuffs	Textile fibers	Metals
1929	100	100	100	100	100	100	100	100
1930	100	104	91	82	107	111	97	100
1931	97	102	91	69	109	114	106	73
1932	94	103	90	39	119	125	111	93
1933	99	108	105	46	119	127	107	97
1934	104	109	119	63	119	126	105	114
1935	105	107	133	67	123	129	105	127
1936	110	113	138	74	124	129	106	129
1937	113	112	146	96	129	136	107	140
1938	114	114	150	90	126	132	102	139

SOURCE: *Raw Materials and Foodstuffs*, Geneva, The League of Nations, 1939.

Production in four continents is indicated in Table 20 and in Table 8 in the Appendix. If these index numbers of production were broken down by countries and by products, many interesting and, in some instances, even alarming facts would be revealed. However, our present purpose is merely to emphasize one or two points

already made. One of the most striking features of these index numbers is the maintained production of foodstuffs, with a considerable gain in Latin America and an even greater gain in Oceania. Production of textile fibers declined only moderately and briefly in Europe, rising by 1938 to 162 per cent. A similar trend occurred in Latin America, while Oceania gained slightly. But notice the decline in North America to 78 per cent after a rise in 1931.

At the other extreme from foodstuffs, notice the sharp reduction in the production of metals — a decline which also occurred (though to a less degree) in oil materials and oils, wood products, fuels and power, metals, and nonmetallic minerals which are not included in Table 20 but are in the Appendix: Table 8. In later chapters, when attention is given to international trade, we shall show some of the dependence of countries and continents on each other and the effect of fluctuating demand and production on foreign commerce. Here it must suffice to point out that regions specializing in the production of foodstuffs have not curtailed output in recent years, but have maintained or increased it. As noted in the preceding chapter, there is a very slight income elasticity in the demand for food, and with output maintained, prices tend to fluctuate within very wide limits — downward, of course, during depression. Growers of textile fibers, cotton and wool, for instance, also are, in general, small or relatively small producers who may not restrict their production when prices decline.

Generalizations are hazardous, but it is safe to say that there is, on the whole, more production by large units among the other raw materials, and also that among them there has been a larger development of cartels and other forms of united effort. But whatever the explanation, notice the fall, for example, in metal production, to lows of 49 in Europe, 27 in North America, 39 in Latin America, and 73 in Oceania. There was also a decline of nonmetallic minerals to lows of 70, 48, 27, and 63 in the same four continents in the same order.

ILLUSTRATIONS OF DEPENDENCE

Both primary producers and buyers are dependent, each on the other. In much current discussion one hears that the United States is dependent on foreign markets for the sale of its cotton and other products, with often little emphasis upon the fact that buyers in other countries rely upon the United States for supplies. Attention,

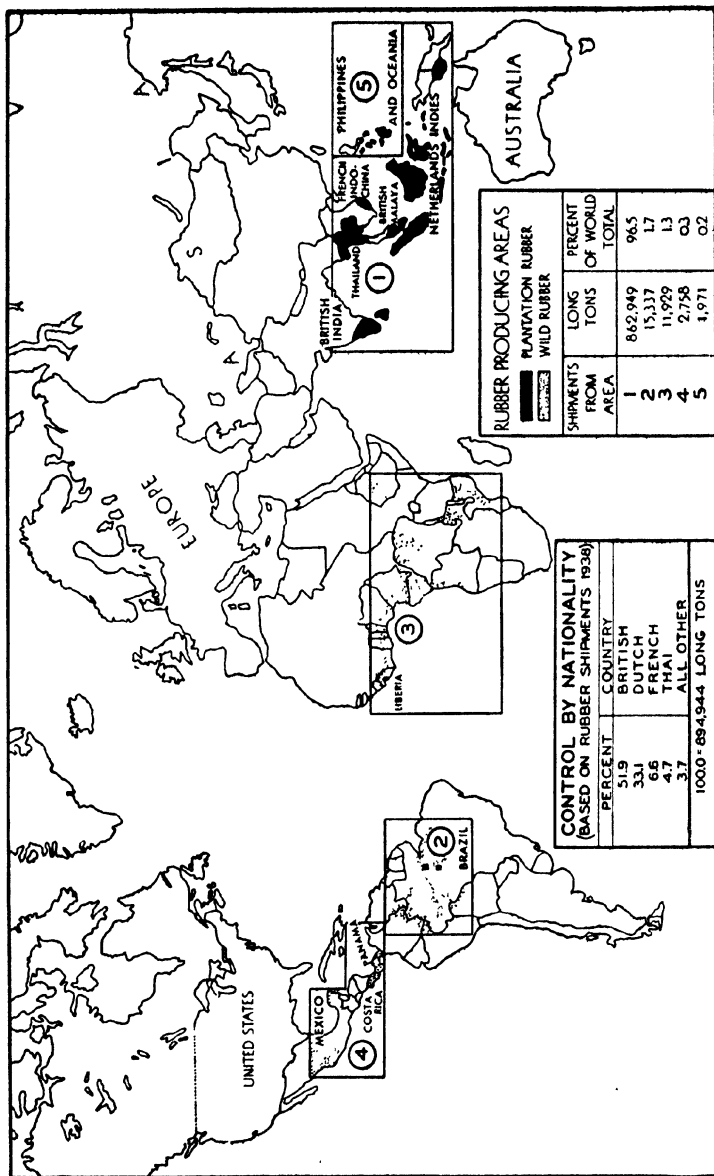


FIGURE 13. Rubber-producing areas and sources of rubber shipments in 1938. (From *Crude Rubber*, Washington, United States Tariff Commission, 1939)

too, is drawn to the dependence of the United States on certain foreign primary products such as silk and rubber, with little or no recognition that Japan and the Netherlands Indies must find other markets if they lose this one, or turn their production to other lines.

Rubber. Since December 7, 1941, all the world has become acutely aware of the place of rubber in modern civilization. How fully the world has depended upon a limited area for its supply of natural rubber is shown by Figure 13. Most of the natural rubber was raised in southeastern Asia and in Oceania, the amount from other parts of the world being trifling. When Japan took possession of the French, British, and Dutch colonies and of Siam, almost all of the usual sources of supply became inaccessible.

It has already been pointed out that "natural resources" are *the environment in the service of man* and that they should be viewed as both *relative* and *functional*. Rubber (and, for the present, we refer only to natural rubber) is a good illustration. The production of natural rubber has presumably always been possible but only in the last century has it assumed great importance. Two developments have been responsible. One — on the supply or production side — was the discovery of the process of vulcanization through which the liquid rubber was transformed for industrial use. The other — on the demand side — was the development of modern industry in which rubber was utilized. Of these developments the automobile was the largest in the amount of rubber used. What was, not so many years ago, not a natural resource, has become one of the most important in the world. Much of our modern life is dependent upon the availability of rubber, and the livelihood of large numbers of producers in the areas where it is grown rests upon a continuing demand for it.

But this demand is indirect or derived. Manufacturers of automobiles want it, not for direct consumption but for use in making a product which they sell to others, and the demand for cars slumps during depressions. This leads the manufacturers to curtail production. Then there is a tragic growth of unemployment in centers like Detroit, while the reduction in the use of rubber brings an accumulation of stocks of raw rubber on hand and ineffective efforts in the producing countries to curtail output and exports.³ In Figure 14 there are shown the fluctuating stocks and prices of crude rubber in the United States during the period 1929–1939. Notice that there

³ See Boeke, J. H., *The Structure of Netherlands Indies Economy*, New York, Institute of Pacific Relations, 1942, especially chap. X.

were high prices and low stocks at the beginning of the period. This situation was sharply reversed during the years from 1930 to 1935, to be restored again during 1936 and 1937. During 1938, stocks again declined and prices rose.

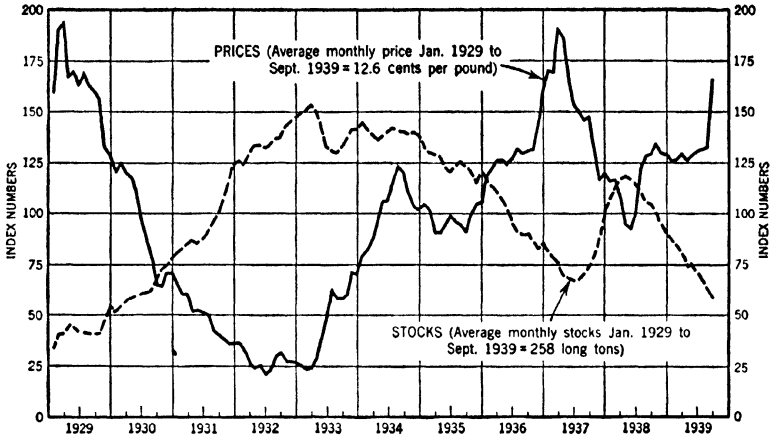


FIGURE 14. United States crude rubber stocks and prices, by months, from January, 1929, to September, 1939. (From *Crude Rubber*, United States Tariff Commission, Washington, 1939)

It would be an error to interpret these few data about rubber in terms of a competitive laissez-faire economy. A more complete recital would include references to the International Rubber Regulation Agreement of 1934 between the British, Dutch, French, and Siamese governments, to the agreement between the governments of the United Kingdom and the United States in June, 1939, to exchange rubber for raw cotton, and to other matters. We are here merely using raw rubber as an illustration of (1) the spectacular development of crude rubber as a "raw material," (2) the dependence of a highly complicated industrial life on that single commodity, and (3) the hazards faced by the producers because of the irregularity of the demand and the wide fluctuations in price.

The last point could perhaps have been made even more clear if we had shown the fluctuations in price a few years earlier — during the period beginning, say, in 1910. On one day in 1910 the "average spot price" in New York was \$2.88 per pound. It fell to 11½ cents in 1921, rose to \$1.23 in 1925, and fell to 2⅝ cents in 1932.⁴

⁴ *Crude Rubber*, Washington, United States Tariff Commission, November, 1939, p. 24.

No one can at this time speak with assurance about the position rubber will occupy in the postwar world. That the demand will continue and expand seems certain, but whether the supply will come from the same sources as in the past is not clear. In 1939, Asia and Oceania furnished 96.6 per cent of the world supply of natural rubber and the United States was the market which received 51.6 per cent of the imports of that year. (See Figure 13.) Also, 59.1 per cent of the consumption of that year was in the United States. During the war, there were two occurrences that will affect the future. One was the growth of a feeling in the United States that such complete dependence on an external source of supply should be avoided, and the other was the development of synthetic rubber production.

One estimate of the world's total production capacity after the postwar transition period is:⁵

<i>Type and source</i>	<i>Long tons</i>
Natural rubber	
Malaysia	1,400,000
Latin America, Africa	100,000
U.S.S.R.	40,000
Total	<u>1,540,000</u>
Synthetic rubber	
United States and Canada	1,000,000
U.S.S.R.	90,000
Germany	70,000
Other countries	50,000
Total	<u>1,210,000</u>
Grand Total	<u>2,750,000</u>

The same writer estimates that the world consumption of natural and of synthetic rubber will be exceptionally large in the transitional period but will then "average 1,600,000 tons annually for a period of at least five years." The average consumption for the period 1936-39 was only 1,100,000 tons. These estimates are not presented as anything more than suggestive, but they indicate a productive capacity 72 per cent greater than prospective consumption. In the absence of controls, public or private, the rubber market faces a period of demoralization like that occurring several times in the not distant past.

Among the points to be considered but on which there is at present complete uncertainty are: (1) the extent to which synthetic rubber

⁵ Knorr, K. E., *Rubber after the War*, War-Peace Pamphlet No. 4, Stanford University, Calif., Food Research Institute, February, 1944, p. 15.

can be a suitable substitute for natural rubber; (2) the cost of producing the synthetic product on a large scale; and (3) the tariff policies that may be adopted by the United States and other countries. It may be that for many purposes synthetic rubber is as good or even better than natural rubber, while in other particulars it will be inferior, and that both will be generally used. To the extent that the synthetic product is used and displaces the natural rubber in world markets, vast areas and many people in Asia and Oceania will be faced with the necessity of far-reaching economic readjustments.

Tin. Another raw material that may be used as an illustration of dependence is tin. Table 21 shows its source by countries — first, of the tin ore (in metal content), and second, of the tin as a metal.

TABLE 21
WORLD OUTPUT OF TIN, BY PERCENTAGES, 1937

<i>Tin ore (metal content)</i>		<i>Tin (metal)</i>	
British Malaya	27.7	British Malaya	48.5
Netherlands Indies	17.5	United Kingdom	17.2
Bolivia	16.3	Netherlands	13.5
Siam	8.8	Netherlands Indies	7.0
China	7.4	China	<u>5.7</u>
Belgian Congo	5.6		91.9
Nigeria	<u>5.1</u>		
	88.4		

SOURCE: *Raw Materials and Foodstuffs*, Geneva, The League of Nations, 1939, p. 17.

Again there is to be noticed the dependence both of consumer and producer. The tin ore comes largely from three countries, two of them colonies. Over 88 per cent comes from seven countries, of which four are colonies and two others — Siam and China — are inaccessible to the Western World during a Far Eastern conflict. Over 91 per cent of this ore is smelted in five countries. The two in the Western World — the United Kingdom and the Netherlands — were dependent for their supplies of ore on the areas just mentioned. Little smelting was done in the United States. On the other hand, the producing areas are dependent on the industrialized countries for their markets. Various sources give more complete pictures of this mutual dependence.⁶

⁶ See, for example, Kranold, Herman, *The International Distribution of Raw Materials*, New York, Harper & Brothers, 1939, and Staley, Eugene, *Raw Materials in Peace and War*, New York, Council on Pacific Relations, 1937.

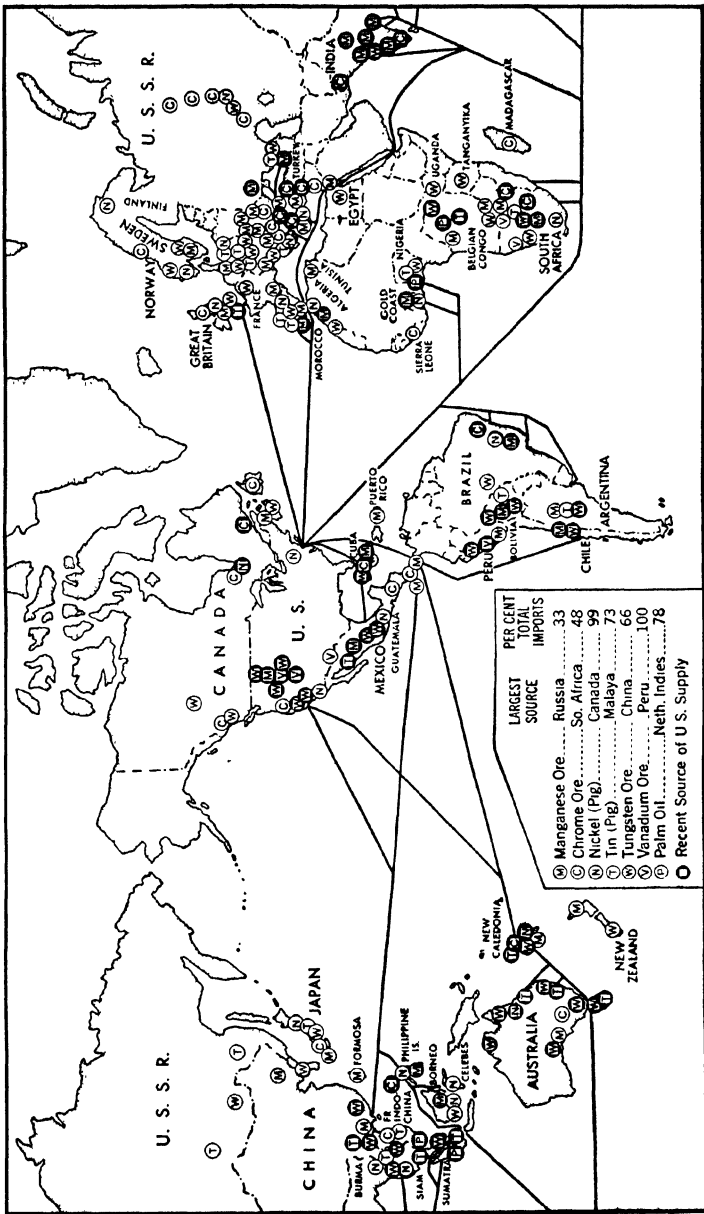


FIGURE 15. Principal sources of imported strategic steelmaking materials 1937 to 1939 inclusive, and ocean routes to the United States. (Reproduced through the courtesy of the American Iron and Steel Institute, with slight adaptations)

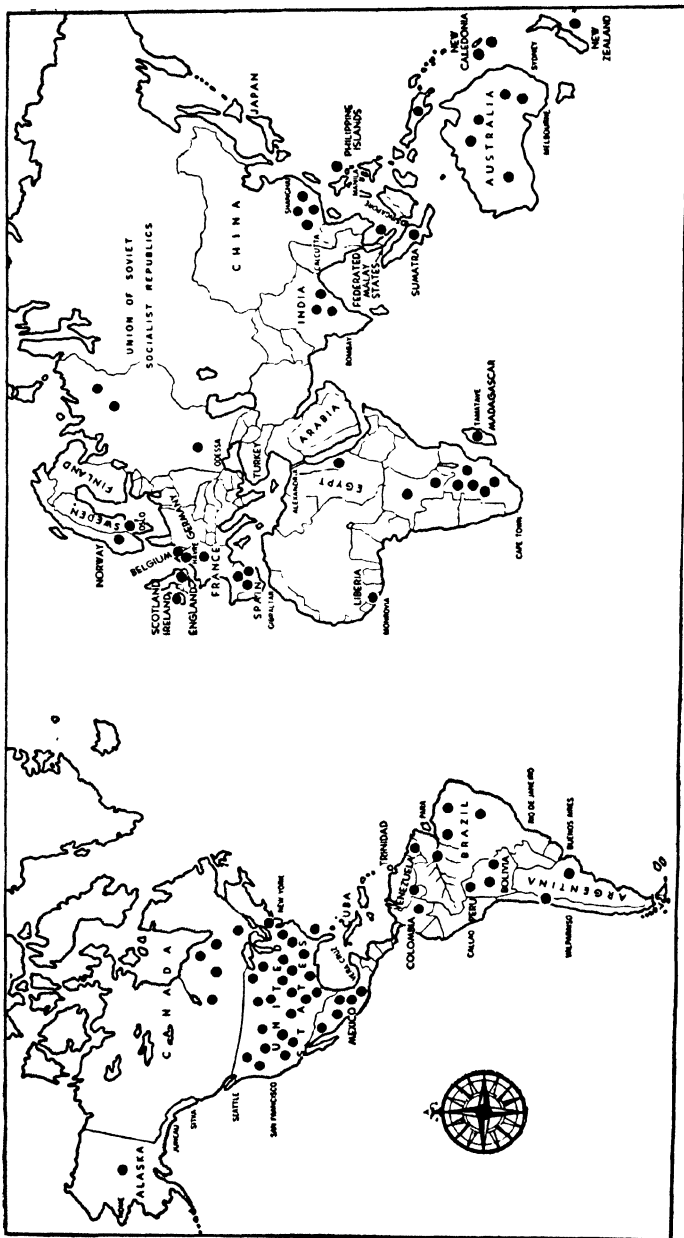


FIGURE 16. Sources of materials used in making a telephone. (Reproduced through the courtesy of the Western Electric Company) It should be noted that this figure shows the reliance in peacetime on materials from many parts of the earth for the manufacture of the familiar telephone. During war the making of the telephone is more difficult.

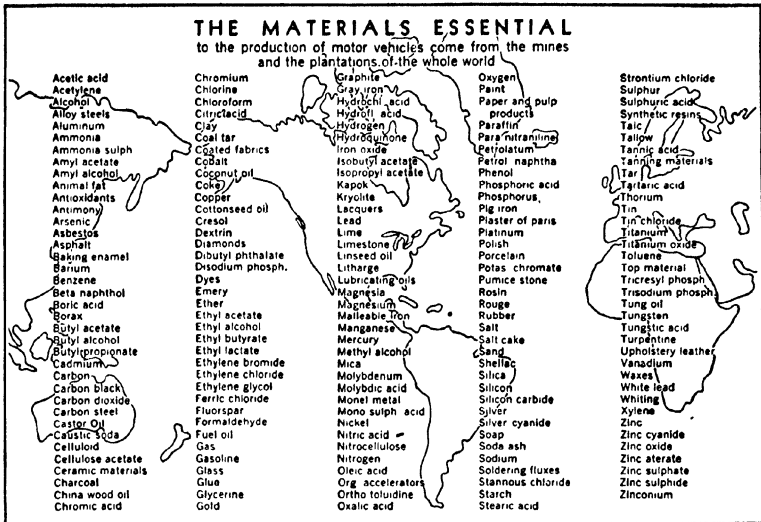


FIGURE 17. Materials essential to the production of a motor vehicle. (Reproduced from *The World Buys a Motor Car* through the courtesy of the Automobile Manufacturers' Association of New York)

Complexity of Demand. "It has been estimated that a modern industrial country uses more than 100,000 different raw materials."⁷ We have referred to only two — rubber and tin. One way to indicate the significance of a product is to note the physical volume or the value as shown by imports, exports, or consumption, but this method is quite inadequate. Some materials whose volume or value seem small are "essentials" in certain lines of manufacturing. Iron ore used in steel manufacturing bulks large and its cost is a high percentage of total costs for that industry, but manganese, tin, vanadium, chrome, and nickel are indispensable in the methods now used. Look at Figure 15, which indicates the sources from which these items have been imported. Then look at Figure 16, showing the variety and sources of supply of the materials used in making a telephone during peacetime, and Figure 17, showing similarly the world dependence of the motor vehicle industry. Thirty-five raw materials are shown as used in making a telephone and 147 items are listed for motor vehicles. Producers of these many thousands of

⁷ Desch, Cecil H., *Substitute Materials in War and Peace* (Royal Institute of International Affairs), London and New York, Oxford University Press, 1943, p. 5.

materials in many different countries are affected by the demand for them in the other countries where they are consumed. The United States is one of the greatest of the consuming countries because of its large area and population and the high per capita national income. Anything that stimulates business activity in the United States is an aid to all parts of the world from which these materials come, while a business depression in the United States means a curtailment of orders and economic loss in many other countries. On the other hand, the loss of any one of these numerous items causes trouble for the manufacturers dependent on them.

SUPPLIES OF RAW MATERIALS

Food supplies are renewable. They are vegetable and animal products and it is possible to maintain their output year after year. With improvements in technology, there is no reason to anticipate a shortage. The difficulties lie mainly in the irregularity of output because of erratic weather fluctuations and in price inelasticity of demand. Population growth is slowing down and as per capita incomes rise this trend will presumably continue. At least, there has been in most countries an inverse relationship between birth rates and per capita incomes.

Raw materials fall into two groups — renewable and nonrenewable. The demand for both of them is indirect or derived and fluctuates greatly with the business cycle. The long-run supply of the renewable materials need cause no concern if fertilization, reforestation, prevention of erosion, and other measures are promptly and intelligently applied.

Nonrenewable materials are another matter. It is often said that in the use of such products we are living on our capital. The coal that is consumed, the copper and lead that are mined, can be replaced by nature only through millions of years of time.

SELECTED REFERENCES

Kranold, Herman: *The International Distribution of Raw Materials*. New York: Harper & Brothers, 1939.

League of Nations: *Raw Material Problems and Policies*. Geneva, 1946.

Leith, C. K., Furniss, J. W., and Lewis, Cleona: *World Minerals and World Peace*. Washington: The Brookings Institution, 1943.

Staley, Eugene: *Raw Materials in Peace and War*. New York: Council on Foreign Relations, 1937.

PART THREE
THE RELATION OF RESOURCES
TO PEOPLE

CHAPTER 9

HOW PEOPLE LIVE

There are over two thousand million people in the world; there has been a rapid increase in numbers, especially during the last century, but the rate of this increase is diminishing; age distribution is changing, those of advanced years now being a larger percentage of the total in many countries than they were only a few years ago; death rates must soon advance and already net reproduction rates in many countries are less than 1,000. In their suggestions about the future, population experts are careful to state clearly the assumptions behind their estimates, but their general expectation is that there will in time be a reduction in numbers, especially in western and northwestern Europe and in the United States.

It is possible, though not very profitable, to speculate about the number of people that could be accommodated on the earth, and attempts have been made in this direction. The results vary widely, ranging from double the present numbers, or about 4,000,000,000, to as high as 11,000,000,000. But all such estimates are based upon assumptions about the development of human knowledge, character, and organizing ability and about mobility or freedom of movement — assumptions so far from the facts as they exist today that we need not consider them here. It is far more to the point for us to concentrate upon issues now before the world.

Domestic Issues. Some of these issues are internal or domestic. As numbers increase and as a rapidly advancing technology adds to the complexities of life, there appear a host of internal strains. Under various pressures there are numerous shifts of location and of occupation. Crowded conditions in urban areas create social and economic difficulties that are difficult to meet. Important as these and other questions may be, our concern is with international matters.¹

¹ For an excellent general discussion, see Myrdal, Gunnar, *Population: A Problem for Democracy*, Cambridge, Harvard University Press, 1940.

International Issues. It is generally believed that many of the strains between different countries are related to the numbers of people in some as compared with others, and to what is called "overpopulation" or "underpopulation." Many point to the number of persons per square mile (or square kilometer) in Japan, or in Poland, or in Italy, or in Germany, as excessive and as perhaps warranting the political policies of those countries. It is said that living standards are depressed where there are many people as compared with the area of the country, and that outlets must be found by emigration, by the acquisition of colonies, or by an increase in trade with other countries.

If these views are to be appraised correctly, it must be done on the basis of as precise information as can be acquired. It is important to learn as accurately as possible how many people are to be found in each country, what they are doing, and the size of their incomes. If real pressures exist, there must be an examination of possible forms of relief. Unfortunately, the available data are far from adequate, but some light can be shed on the issues raised.

DISTRIBUTION OF POPULATION

Accordingly, we may examine more in detail how this population is distributed. A broad picture has been given by Figure 1 in Chapter 1. Much of Europe and of the northeastern part of the United States is densely populated, but the density is even greater in parts of India, of China, of Japan, and of other parts of Asia, and also, for example, in Java. Other areas have fewer people, and the first conclusion to be drawn is that the distribution of population over the surface of the earth is very uneven. Those who are willing to formulate programs of action on the basis of first impressions may (and many do) immediately advocate plans for distributing human beings more evenly.

Yet even the most hasty are conscious of certain restrictions imposed by the facts. Thus, no one considers the use of any but land areas for settlement, and very few propose colonization of the arctic regions and of the Sahara Desert. But the reasons why these limitations are recognized suggest the line of analysis that should be followed. There are some parts of the earth's surface that are better suited for human habitation than are other parts, and this suitability ranges upward from zero in some locations, to much higher figures elsewhere. It is even possible that population distribution may

already be adjusted as nearly as possible in accordance with the possibilities of securing a maximum livelihood in various areas. On the other hand, this suggestion may be quite contrary to the facts.

Density by Countries. In Table 22 are found for a number of countries the latest available estimates of the numbers of people per square kilometer for recent years. Some readers would doubtless prefer to have "square miles" used, but the metric unit is more widely employed. A square kilometer equals 0.3861 square mile and conversion to that unit is not difficult. As will appear later, relative densities are more important than absolute densities, so the choice of the unit is for most purposes not significant.

TABLE 22*
POPULATION DENSITIES OF CERTAIN COUNTRIES
(Land area in square kilometers)

Country	Arithmetical † (about 1937)	Arable ‡ (1938)	Agricultural § (1938)	Productive
Argentina	4.6	52.8	—	4 (1913)
Australia	0.9	57.3	13.2	10 (1913)
Belgium	274.1	817.3	156.1	296 (1913)
Brazil	5.1	470.0	—	—
Canada	1.2	45.2	14.1	16 (1913)
China	43.0 (1928-29)	—	—	—
Denmark	87.3	139.1	48.4	76 (1913)
France	76.1	202.6	77.6	79 (1925)
Germany	144.1	345.2	105.3	131 (1925)
India	83.0 (1931)	143.0	92.6	122 (1925)
Italy	138.8	334.3	154.8	143 (1925)
Japan	186.3	1,205.3	604.5	199 (1925)
Netherlands	246.7	884.4	182.2	251 (1925)
Poland	89.0	189.7	143.5	—
Sweden	14.0	154.4	62.8	21 (1925)
United Kingdom (England and Wales)	271.6	195.1	68.4	—
United States	16.5	92.3	20.3	27 (1913)

SOURCES: For statistics used in calculation of arithmetical, arable, and agricultural densities, the sources used are *The Year Book of International Agricultural Statistics for 1938-39*, pp. 2 ff., and two issues of *The Statistical Year-Book of The League of Nations: 1933-34*, pp. 39 ff., and *1939-40*, pp. 14 ff. The figures for productive density are from *Population and Natural Resources*, a report prepared for the International Economic Conference held at Geneva in 1927. The exact reference is C.E.I. 39. Ser. L.o.N.P. 1927. II. 43.

* This table should be used only with the explanations given in the text.

† Arithmetical density is total population divided by the total land area in square kilometers.

‡ Arable density is total population divided by the square kilometers of land area under cultivation plus fallow land.

§ Agricultural density is the numbers in each country reported as engaged in agriculture, fishing, and so forth, divided by the square kilometers of arable land.

|| Productive density is the numbers engaged in productive activity of all kinds divided by the total land area in square kilometers.

There have been included in this table more countries than in some of the preceding tables. Since not all the countries in the world need be given, the choice has been made by including: (1) several countries with a relatively high density; (2) several with a relatively low density; and (3) some which show, regardless of density, certain features that should be emphasized.

Arithmetical Density. An examination of the first column shows a wide range of density — from only 0.9 in Australia to 274.1 in Belgium. Much has been said of the large numbers of people in China and in India, but their densities are only 43.0 and 83.0 respectively. Quite recently, too, there have been many assertions of “overpopulation” in Germany, Italy, Japan, and Poland, yet their densities in this order are 144.1, 138.8, 186.3, and 89.0. These are lower than for Belgium, for the Netherlands, and for England and Wales.

But it must be noticed that these are “arithmetical” densities. Each is the quotient found by dividing the estimated (or calculated) population of each country by the number of square kilometers of its total area. No account is taken of the quality of the territory or of the population. If some of the areas are mountainous or marshy, then there should in all fairness be some adjustment of the estimates to allow for these facts. If some of the mountain regions contain rich mineral deposits, there should be further adjustments.

Also, the averages are for each country as a whole. This explains why some of the densities seem so low as to contradict the assertion that such countries as India and China are densely populated. In these and in a number of other countries, there is a wide variation from one section to another. In India, for example, there are only 6.5 persons per square mile in Baluchistan, but 935 persons per square mile in the Dacca division of Bengal.² There are differences in density throughout China and, in fact, in all other countries — a reminder that no statistics are to be accepted without careful examination. As we shall see, the refinements and corrections needed are so numerous that generalizations must be made, if at all, with the greatest of care.

Arable Density. The countries differ very widely in certain particulars. Just how corrections should be made for these differences it is not easy to decide. However, for some purposes at least, it is helpful to ascertain the number of persons per square kilometer of “arable” land. “Arable land,” as the term is used by economic

² Carr-Saunders, A. M., *World Population*, London, Oxford University Press, 1936, p. 274.

experts of the League of Nations and by others, does not mean land that might be in cultivation but land which is "actually under crops plus fallow land." There may be many square kilometers in many countries which could be cultivated and cultivated to better advantage than those being used, but there is at least a presumption that the land in use is better than the land not in use.

With this explanation clearly in mind examine the column in Table 22 which lists arable densities in 1938. Each figure given is the quotient found by dividing the total population of the country by the square kilometers of "arable" land in that country.³ Japan leads the list with 1,205.3 persons per square kilometer, this being attributable to the high arithmetical density and to the fact that only 15.8 per cent of the country is "arable." Next in order are the Netherlands (884.4) and Belgium (817.3). Then there is a sharp drop to Brazil (470), Germany (345.2), and Italy (334.3). Lowest in the table is Canada (45.2).

Agricultural Density. Statements of density should for many purposes be given in another way. The reason for this may be made clear by noticing that in such a calculation for an urban area, say for the island of Manhattan, the arable density would be enormous since the total population is high and the land actually cultivated there is only a few rather minute areas.

This form of presentation is given the designation "agricultural" density. It is found by dividing the number of persons in each country whose occupation is given in the reports of the League of Nations as engaged in "agriculture, fishing, and so forth," by the square kilometers of land classified as "arable." These figures are even less precise and for two main reasons. One is that the occupational percentages available are for earlier dates, chiefly from 1920 to 1931, while the "arable" land figures are for 1938. Another is that in some countries, for example, in Japan, a larger percentage of the population is engaged in fishing, and so forth (as distinct from agriculture) than in others, for example, in Poland. But the calculations are presented not with a pretense at precision, but merely to indicate in a very rough way the dangers there are in using merely crude statements of arithmetical density.

Japan is still far in the lead but with a much lower figure, since (in 1930) only about half of the population was engaged in "agricul-

³ The amount of arable land in each case found by multiplying total land area by the percentage that is classified as arable in the reports of the International Institute of Agriculture.

ture, fishing, etc." Next are the Netherlands (182.2), Belgium (156.1), Italy (154.8), and Poland (143.5). Lowest are Australia (13.2), Canada (14.1), and the United States (20.3).

Productive Density. Even less satisfactory are the calculations of productive density, that is, the number of persons per square kilometer engaged in productive activity. The ones given were prepared in 1927 for the World Economic Conference in Geneva but were offered with the greatest of reserve. They are for different dates — 1913 and 1925 — and are merely suggestive. In this column Belgium leads (296), followed by the Netherlands (251) and Japan (199). Lowest are Argentina (4), Australia (10), and Canada (16). Sweden has a productive density of 21 and the United States figure (at an earlier date) was 27.

The Significance of Density. Few conclusions should be drawn from Table 22 except that the greatest of care should be employed in the discussion of population density. There are high arithmetical, arable, and agricultural densities in Japan, but the productive density is lower than that of Belgium and the Netherlands. A large number of the Japanese people have turned to manufacturing and other pursuits. Not much land in Sweden is being cultivated (only 9.1 per cent), and most of the land there cannot be so used, but her forests, fisheries, and mines are highly significant, and 25.1 per cent of her population are engaged in industry. These few countries are sufficient to illustrate the many factors involved and the need for care.

Productivity and Population. Because so much is said and written about "overpopulation," other complexities must be mentioned. All of our calculations are troublesome. Bases vary widely from one country to another, but even if roughly comparable standards could be agreed upon, there would still be left the necessity for judgments in particular cases. Population pressure as a cause of international strain is related to standards of living and to the ability of people to live as they have been accustomed to live, or as they would like to live, or as the people of other countries live. In other words, productivity is highly important. A given number of persons per square kilometer may readily produce more in the Mississippi valley of the United States than the same number in Norway or in the Gobi Desert.

If there were just two grades of land, productive and nonproductive, it would be only moderately difficult to draw a few conclusions, but productivity is a matter of minute gradation from nonproductive (in any sense of the term) to the highest productivity. To classify all

areas of the world with all these points in mind is entirely impossible, but some matters of significance can be indicated. One already mentioned is the amount of land that is arable. Since food for man and for beast, as well as many raw materials such as cotton, are secured by cultivating the soil, the areas that may be classified as arable should be noted. All that is actually under cultivation or fallow is technically arable, but more needs to be said.

This may be clarified by noting the great variation in yields of wheat in different countries. In some the yield is high and in others it is low, and there is a considerable range from year to year. Notice the following comparison in quintals of yield per hectare of area harvested:

<i>Country</i>	<i>Yield in quintals per hectare of area harvested. Range: 1933 to 1938</i>
Canada	4.7 — 9.1
Portugal	5.0 — 12.4
Mexico	5.9 — 7.2
Greece	6.4 — 11.4
United States	7.5 — 9.1
Rumania	7.6 — 12.6
Bulgaria	8.6 — 15.4
Yugoslavia	9.2 — 14.2
France	13.3 — 18.6
Germany	20.6 — 27.4
Sweden	21.0 — 26.7
Belgium	24.6 — 31.5
Denmark	25.6 — 35.1
Netherlands	26.7 — 34.4

Differences from year to year are to be explained chiefly by the weather but also by areas planted; between countries by contrasts in fertility of soil, intensity of cultivation, and other factors. Also it is to be remembered, that for each year in any country, yields are averages for the country as a whole, and that there is a wide spread, as in 1938 for France, between the lowest yield and the highest, with the average in that year at 18.6. Some of the yields are above and some below that figure.

In the United States in 1938 the yield of wheat in bushels per acre averaged 10.8 for Nebraska, Kansas, Colorado, Texas, and Oklahoma, but 22.2 in the western states. In the same year the average figures for corn yield were 14.3 in the southern and western states and 45.3 in Illinois and Iowa.⁴ Even these yields are averages for large areas.

⁴ *Agricultural Statistics*, Washington, United States Department of Agriculture, 1940, pp. 568-569.

At any given time, there will be some areas that are "marginal," or perhaps "submarginal." Also, physical productivity is quite meaningless considered by itself. To the extent that in any country agriculture is "operated for profit," the test of productivity is to be found in the possibility of financial returns equal to or in excess of expenditures. This means that not only physical factors such as the weather and the nature of the soil are important, but the total of the various items of expenditure and the price at which the product can be sold.

Thus there are vast regions that at one time may be productive and at other times nonproductive. It pays to cultivate these regions if their produce, say wheat, is at one price, but it does not pay if the price of wheat declines by only a few cents per bushel. Some lands prove to be worth cultivating when weather conditions are satisfactory, but are a loss to their owners in other years. The great dust-bowl region in the United States was for a long time arable, then dropped below the margin, and now is said to be again coming back into cultivation. Areas in the southern part of the United States were for a long time highly suitable for cotton, but improved techniques used to better advantage in other areas and, perhaps, "soil exhaustion," have occurred to such an extent that some areas at least are now less productive. For a time it did not pay farmers to cultivate some of the soil of New England because it paid better to farm in the Middle West. But more recently there has been something of a reversal of this tendency. "In Northwestern China, the border of agriculture has moved back and forth with the rainfall for centuries."⁵

Then allowance must be made for other uses of land. Even soil that is not arable may be excellent for permanent grass and pasture. Or it may be suitable for timber even though it cannot be cultivated in the usual sense. Thus, it is estimated that in 1930 only 2.6 per cent of the land of Norway was arable and only 0.7 per cent was in permanent grass and pasture, while 24.3 per cent was wood and forest land. In 1937, the exports of Norway included 1,146,000 metric tons of timber and wood pulp valued at 128,200,000 kroner. Norway's forest lands are certainly productive. "The importance of the forest for Sweden's economy, although not always recognized, has long

⁵ Alsberg, Carl L., "The Food Supply in the Migration Process," in *Limits of Land Settlement*, edited by Isaiah Bowman, New York, Council on Foreign Relations, 1937, p. 34.

been, and still is, so great that one is fully justified in calling the forest our country's greatest natural asset."⁶

Next there are minerals and other products such as coal and petroleum, some of which are often found in land not arable and not agricultural. Norway in 1937 exported iron ore and concentrates, pyrites, aluminum, zinc, ferromanganese, other ferroalloys, and stone (including manufactures) weighing 2,147,800 metric tons and valued at 127,500,000 kroner. In 1937 Chile exported iron ore and copper ore and copper in other forms, weighing 2,175,300 metric tons and valued at 518,300,000 pesos, and 1,612,000 tons of nitrate of soda (including iodine) valued at 189,600,000 pesos. The nitrate was 20 per cent (in value) of her total exports and the minerals were 54.6 per cent.

Evidently productive is a much broader term than either arable or agricultural. But there are other items to be added. In 1914, there were in Japan 1,300,000 people and thousands of boats engaged in fishing, whereas in England in the same year but 100,000 persons were so engaged.⁷ In 1900, the consumption of fish by the Japanese was 29 pounds per capita, and in the period 1924-26 the annual average was 82 pounds.⁸ In 1937, their exports of fish, seaweed, and so forth were worth 22,000,000 yen. A complete statement of productivity clearly must include more than the income-producing capacity of the land alone. Productivity also is affected by the relations between a country and the outside world. For example, the United Kingdom has a merchant fleet that in 1937 earned (net) £130,000,000.⁹ For 1935, Germany reported net tourist expenditures in her favor of 195,000,000 reichsmarks.

We might go on at considerable length, but this is enough to indicate (1) that estimates of productivity are far from easy and must include many items, and (2) that consequently a mere statement of

⁶ Hernod, Torsten, *The Forest: Sweden's Greatest Natural Asset*, supplement to Svenska-Handelsbanken's Index, June, 1939, p. 2. See also *The Northern Countries in World Economy*, second revised edition, published by the Delegations for the Promotion of Economic Co-operation between the Northern Countries (Finland, 1939).

⁷ Smith, J. Russell, *The World's Food Resources*, New York, Henry Holt & Company, 1919, p. 332. See also Moulton, Harold G., and Ko, Junichi, *Japan*, Washington, The Brookings Institution, 1931, who states that in 1927 the fish catch of Japan was 3,568,000 tons or, with that of Chosen and Karafuto, it was 4,545,000 tons; and that in 1928 the number of fishermen was 1,498,258 and that of fishing boats was 360,126.

⁸ Orchard, John E., *Japan's Economic Position*, New York, McGraw-Hill Book Company, 1930, p. 18.

⁹ *Balance of Payments*, Geneva, The League of Nations, 1938, p. 184.

population density in terms of the number of persons per square kilometer of total land area, or on any other basis, may be entirely misleading. This point has been elaborated partly for its own sake, but also because of the light it throws on the discussion of so-called population pressure. Like so many other concepts, this one is to be used cautiously.

OCCUPATIONAL DISTRIBUTION

It is not to be expected that the same occupations will be followed by the people of all countries. In Part Two of this volume there has been presented the wide differences that exist in the distribution of natural resources. Where there are large areas of unexploited forests, some of the population will be engaged in lumbering. In the Netherlands Indies and elsewhere there is a large production of natural rubber. Deposits of coal, of iron ore, of copper, of natural nitrates, and of other usable resources determine occupational distribution. Stability of political institutions, accessibility to water routes, and other factors also determine what people will do.

Attempts have been made to indicate this occupational distribution, and some have been brought together in Table 9 in the Appendix. It cannot be emphasized too strongly that these figures are only approximations, and that conditions change with considerable rapidity with the passage of time. In fact, as will be pointed out later, some of these changes in occupation help to explain the appearance of international friction.

Occupational Specialization. Table 9 in the Appendix contains a number of columns but for the moment we are concerned only with those showing the percentage of "arable land" to total area and the occupational distribution of the population. The other data will be referred to later.

There are many who favor an attempt to relieve the alleged population pressure in some countries by encouraging or even compelling a large emigration to other regions where population density is less. Presumably such proposals should be encouraged only if there are strong reasons for believing that these migrants can find profitable occupations in their proposed new locations. Australia and Canada are two countries frequently mentioned, but it should be noticed at once that in these countries the percentages of "arable" land were 1.7 and 2.6, respectively, in 1938.

Of course there may be large areas not now under cultivation that

could be so utilized, but we should inquire whether this is really the case, and, if it is, we may ask why more of the people already in these countries are not engaged in agriculture. Unfortunately, we do not have estimates for occupational distribution for 1938 and must content ourselves with data for earlier years. In Australia (1921) there were 25.8 per cent of the people engaged in "primary" activities and most of them, or 22.9 per cent, were in agriculture, fishing, and so forth. For some reason, 31.2 per cent were following secondary pursuits and 43 per cent were classified in tertiary occupations, that is, in trade, transportation, the liberal professions, domestic service, and so forth.¹⁰ While the choice of an occupation is determined by many considerations, it is probable that important among them is the smaller incomes received in agriculture. Certainly, plans for large-scale immigration into Australia should be considered most carefully, since there is a strong probability that newcomers would be compelled to support themselves in some other manner than by tilling the soil. The same questions may be raised about Canada and other areas and have already been considered in Chapter 3.

Notice next, the great difference between the percentages engaged in primary occupations. In Great Britain (or rather, in England and Wales, for which these calculations have been made for 1921), only 14.3 per cent are classed as primary and this is made up of 6.8 per cent in agriculture, fishing, and so forth, and 7.5 per cent in mining, quarrying, and so forth. At the other extreme is Yugoslavia (1921) where 82 per cent were engaged in agriculture, fishing, and so forth, and 0.3 per cent in mining and quarrying, or 82.3 per cent in primary and secondary occupations. These few illustrations are sufficient for special mention.

NATIONAL INCOMES

A little later some of these statistics of population density and occupation will be considered further, but before doing so it is important to learn something about the incomes of people in different parts of the world. This inquiry should be attempted since no one can form a judgment about population pressure solely on the basis of the

¹⁰ This classification of occupations is:

Primary: agricultural, pastoral, forest, fishing, and hunting.

Secondary: manufacturing, electric power production, mining, building and construction.

Tertiary: all other economic activities.

number of persons per square kilometer (or square mile) in each country. If the soil is not suited to agriculture, the country may be rich in timber, or in mineral resources, or it may be blessed with beautiful scenery or with art treasures which tourists gladly pay to see. If the population is well trained, there may be a specialized skill which will wrest a fair income even from niggardly natural resources. If a group of people, such as the British, have stable institutions and specialize in importing raw materials and in manufacturing them into finished articles that are sold abroad, the people of Great Britain may live comfortably — or at least so long as the basis of their prosperity can be maintained.

If it is possible to present the incomes of people in different parts of the world, these incomes can be compared, and at least a tentative judgment will be possible. Like so many other estimates in economics, these are difficult. For the last few years the task has been especially baffling. Conditions changed very rapidly after 1919, but especially after 1929. Some countries have always published insufficient data and recently several of them have withheld some of the usual information. Then, too, the data given are expressed in local money. But fluctuating exchange rates, exchange controls, and blocked currencies often make it almost impossible to reduce the estimates to a satisfactory common denominator. When to this is added the inflation, in some cases open and in others concealed, that has gone on in so many countries (with, of course, deflation from time to time in some), the task of accurate adjustment and of comparison becomes an impossible one.

Estimates by Kuznets. We shall present two expert estimates, the first one prepared by Dr. Simon S. Kuznets of the University of Pennsylvania for the *Encyclopedia of the Social Sciences*. It is reproduced in part as Table 23.

Estimates by Clark. Another comparative statement may be presented with emphasis upon the different basis used. It is by an Australian economist, Colin Clark, who has devised what he calls an International Unit, viz., a dollar having the purchasing power that a United States dollar had on the average in the decade 1925-1934.¹¹ (See Table 8 in the Appendix.)

Differences between the estimates of Clark and of Kuznets are in part attributable to their choice of statistical method and to their

¹¹ Clark, Colin, *The Conditions of Economic Progress*, London, Macmillan & Company, Ltd., 1940, especially chap. II.

TABLE 23
PER CAPITA INCOME ESTIMATES FOR VARIOUS COUNTRIES
(In 1913 dollars)

Country	Prewar (1911-1914)	Postwar (1923-1929)
United States	\$368	\$541
Canada	296	401
Australia	292	304
United Kingdom	250	293
Germany	178	199
France	161	188
Switzerland	171	178
Austria	132	152
Belgium	164	135
Spain	94	117
Italy	108	96
Hungary	64	85
Russia	52	62
Japan	22	53
India	14	13

SOURCE: Reproduced by permission of the author, Dr. Simon S. Kuznets, from the *Encyclopedia of the Social Sciences*, New York, The Macmillan Company, 1938, vol. XI, p. 206.

These estimates by Dr. Kuznets are compiled from a long list of sources which will be found in the encyclopedia from which they are copied. The difficulties of such compilations and the limitations on their usefulness are carefully explained in Dr. Kuznets' accompanying discussion. He summarizes his method as follows:

The total income of each country was converted into American dollars on the basis of the average rate of exchange of the corresponding year and divided by the population figure to give the per capita income in current dollars. The total income of each country, expressed in its own currency, was deflated by the wholesale price index for that country with 1913 as the base year, converted into American dollars on the basis of the rate of exchange in 1913 and divided by the population figure to give the per capita income in 1913 dollars.

Two explanations should be given. The order of the countries in this table has been changed from that of Dr. Kuznets. Also the years given vary from country to country which range from 1911 to 1914 in the "Prewar" column (with the exception of India which is for the period 1900-1914) and from 1923 to 1929 in the "Postwar" column (with the exception of India which is for 1921-22).

differences of judgment, but it is to be especially noticed that Kuznets gives an arithmetical average for the entire population, while Clark gives what he designates as the average real income per head of the occupied population. Accordingly, the Clark figures are the higher. Yet the two estimates are in general alike in the relative position of most, though not all, of the countries included by both of them. The United States and Canada stand at the top of the list and India is at the bottom. Clark has included more countries, attempting calculations for practically the entire world.

In order to make the estimates of Clark more vivid, a "world income map" (Figure 18) has been prepared. On it there have been

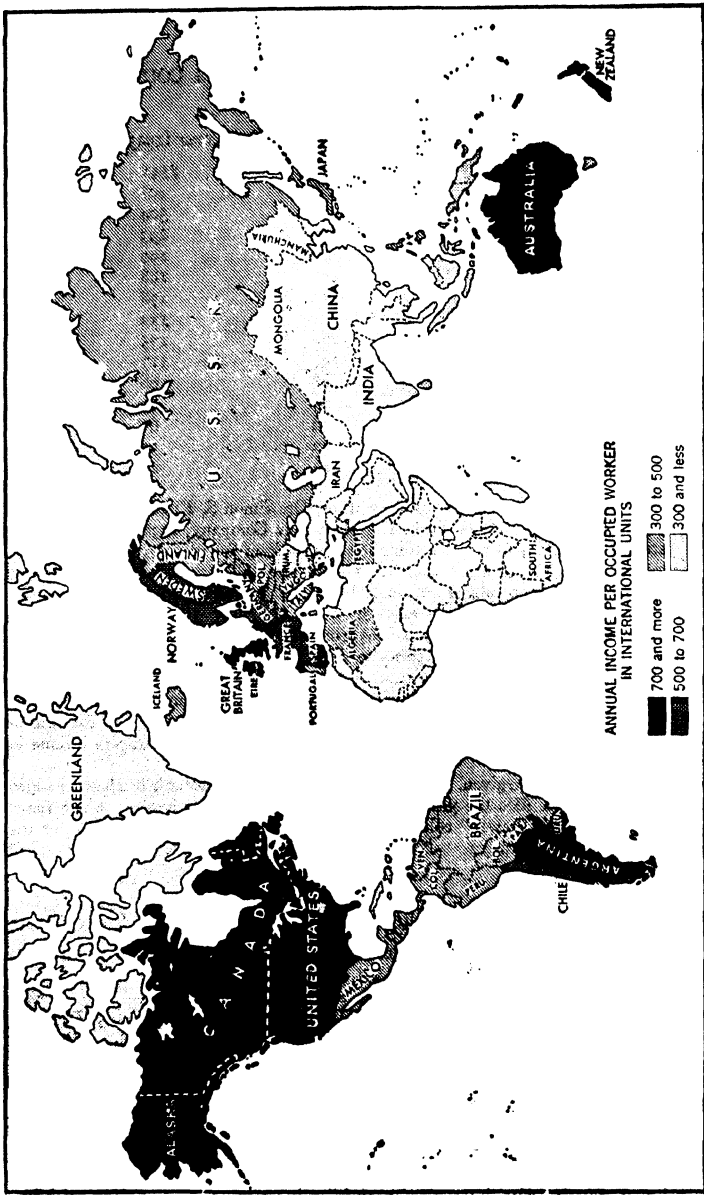


FIGURE 18. A world income map. (Based on data in *The Conditions of Economic Progress* by Colin Clark, London, Macmillan & Company, Ltd., 1940.)

indicated those countries whose occupied populations are found by Clark to have (1) incomes of 700 or more in International Units, (2) incomes of from 500 to 700 units, (3) incomes of 300 to 500 units, and (4) incomes of 300 units and lower. In the first or highest group are found those at the top of the income column in Table 9 of the Appendix, including in order the United States, Canada, New Zealand, Great Britain (including the Isle of Man, the Channel Islands, and Northern Ireland), Switzerland, Argentina, and Australia. In the lowest income group are China, India, and the Netherlands Indies.

It is enlightening to notice Table 24, which shows the distribution of world population by "income categories," the monetary measure being the "International Unit" previously described. It will be remembered that income is "per head of the working population."

TABLE 24
DISTRIBUTION OF WORLD POPULATION BY
"INCOME CATEGORIES"

<i>Income per head</i> <i>(In International Units)</i>	<i>Millions of</i> <i>population</i>	<i>Percentages</i>
Over 1,250	139	6.6
1,000 — 1,250	65	3.1
700 — 1,000	18	0.9
600 — 700	130	6.2
500 — 600	39	1.9
400 — 500	72	3.4
300 — 400	451	21.3
200 — 300	68	3.2
Under 200	<u>1,113</u>	<u>53.1</u>
	2,095	100.0

SOURCE: Clark, Colin, *The Conditions of Economic Progress*, London, Macmillan & Company, Ltd., 1940, p. 57. The percentages in the last column have been added by the writer.

Over one half of the population of the world (53.1 per cent) is assigned an income of less than 200 units; over three fourths (77.6 per cent) 300 units or less; and over four fifths (81.9 per cent) 500 units or less. If an "International Unit" puzzles the reader, he will be aided by a reminder that the estimated income per head for the United States during the period covered (1925-1934) was from 1,300 to 1,400 of these units. The conclusion drawn by Colin Clark is worth quoting:¹²

¹² Clark, Colin, *The Conditions of Economic Progress*, London, Macmillan & Company, Ltd., 1940, especially chap. II, p. 2.

Summarizing these figures, the world is found to be a wretchedly poor place. An average real income per worker of 500 I.U. or less (in round figures a standard of living below £2 or \$10 per week per breadwinner) is the lot of 81 per cent of the world's population.

There are estimates by other writers, some for other dates. They vary considerably because the basic information is incomplete, and because of the many occasions for the exercise of judgment in interpretation. But in all of them productivity as expressed in terms of per capita income varies widely. In view of the difficulties of making estimates, and of the changes that are constantly taking place, only the most general statements are warranted.

If a comparison is made between this estimate of national income (or production per capita of the occupied population) and Table 22, which gives the density of population for a number of countries, it will be seen that there seems to be no close correlation between density and productivity. Japan, it is true, has a high population density and a low productivity, while the United States has low density and high productivity. But the United Kingdom has a high density (especially in England and Wales) with a large income. The countries of central Europe are quite densely settled, yet productivity is relatively high. Certainly no conclusion can be drawn regarding population policies merely on the basis of the number of persons per square kilometer.

Incomes, Arable Land, Birth Rates, and Occupations. A further examination of Table 9 in the Appendix is helpful. To Clark's income estimates have been added the percentages of arable land in relation to total area (1938), birth rates in 1938, and, finally, the percentages of the population engaged in primary, secondary, and tertiary occupations.

At once it is noticeable that, with certain exceptions, the countries with the highest per capita incomes have the lowest birth rates. Of the countries with a per capita income of 400 or more International Units, only Argentina, Brazil, Chile, and Yugoslavia have birth rates of over 22 per 1,000. Of the countries with a per capita income of less than 400 International Units, there is only one, Hungary, with a birth rate lower than 22 per 1,000. There seems to be an inverse relationship between income and birth rates.

Also, the relation between per capita income and occupations should be noticed. In general, the incomes are higher in the countries where a considerable percentage of the population is engaged in

secondary and tertiary occupations rather than in primary occupations. To this there are exceptions, the most noticeable, perhaps, being Italy and Japan, which are fairly low in the income scale and also have 43.3 and 43.6 per cent, respectively, of their occupied populations engaged in secondary and tertiary activities. Incomes are for the most part low where the agricultural population is large. No hasty conclusions should be drawn, but some observers have insisted that this fact warrants the suggestion that the agricultural areas of the world should turn their attention more and more to manufacturing.¹³

Finally, it is to be observed that where a considerable percentage of the land is "arable," there may be a low percentage of the population engaged in agriculture. The most noticeable illustration is Great Britain, where 23.1 per cent of the land is "arable," but only 6.8 per cent of the population are in agriculture and fishing combined (with others in mining, and so forth). Compare Austria, where 23.5 per cent of the land is arable, but 31.9 per cent of the population is engaged in primary occupations.

SOME GENERAL OBSERVATIONS

At the beginning of this volume attention was called to the difficulty of passing from simple economic matters to the more complex, as can be done more readily in some other fields of knowledge. Any topic raised at once becomes so involved with all others that there is always the possibility of wandering off in many directions. In this chapter the way in which people live is under discussion, but in an effort to picture where and how the people of the world live it has been easy to bring into the analysis some matters that may perhaps better be considered later. A line must be drawn somewhere and this chapter may be concluded with three observations warranted by the facts that have been presented.

First, the population of the world is very unevenly distributed, density being very much greater in some areas than in others.

Second, a mere statement of density is meaningless unless it is in some way related to such other matters as arability or general productivity; the occupations of the people; their per capita incomes; and the relations of each area to other parts of the world.

¹³ Mihail Manoilescu in *The Theory of Protection and International Trade*, London, P. S. King & Son, 1931, p. 40, states: "As a mathematical result, all other human activities are, on the average, approximately 4.35 times as productive as agriculture."

Third, any discussion of population pressure which does not take into account a bewildering variety of other matters is entirely futile.

But it is time to consider more carefully what is meant by overpopulation, underpopulation, population pressure, and other terms. These and related matters are the topics of the next chapter.

SELECTED REFERENCES

Carr-Saunders, A. M.: *World Population; Past Growth and Present Trends*. London: Oxford University Press, 1936.

Clark, Colin: *The Conditions of Economic Progress*. London: Macmillan & Company, Ltd., 1940.

Glass, D. V.: *The Struggle for Population*. London: Oxford University Press, 1936.

Myrdal, Gunnar: *Population: A Problem for Democracy*. Cambridge: Harvard University Press, 1940.

Wright, F. C.: *Population and Peace*. Paris: 1939; also published as Vol. 2 of *Peaceful Change*, New York, Columbia University Press, 1938-39.

CHAPTER 10

MORE ABOUT HOW PEOPLE LIVE

From the data presented in the preceding chapters, certain conclusions emerge and certain problems may be posed. From country to country there is a wide divergence in incomes, and the countries whose people have low, though not the lowest incomes, object, insisting they must have more opportunities. Especially is this the case when incomes, whether low or high, are depressed. The suggestion that relief can be obtained through migration was surveyed in Chapter 2, but it seems very doubtful whether large-scale movements from densely to sparsely populated areas would result in a more nearly optimum distribution. To this must be added the obstacles raised by the growth of barriers to immigration, which brings us to the possibility that better results may be secured through more economic interchange — through more trade.

The incomes of many hundreds of millions of people are low. If we accept the humanitarian assumption that, if possible, they should be raised, we must ask ourselves how, if at all, this can be accomplished. But before proceeding further, more consideration should be given to the extent of the poverty, to its location, and to some of the possibilities of securing relief. There is a close correlation between income levels and trade.

UNEQUAL DISTRIBUTION OF INCOMES

The Lowest Incomes. About 60 per cent of the inhabitants of the earth live in Asia and in Africa, or some 1,200,000,000 of its 2,145,000,000 people. The world income map (Figure 18, page 150) shows at a glance that the areas of lowest income as calculated by Colin Clark (300 International Units and under) are in those two continents. In Asia, only Japan, the Philippine Islands, and Siberia are in a higher group. But they are only in the next higher, and perhaps Siberia would be rated lower were its average not raised

somewhat by inclusion with European Russia. In Africa, only Algeria and Egypt are just out of the lowest income classification.

The Higher Incomes. If we turn to the other extreme, the countries with the highest incomes (over 700 International Units), we find that they are few in number and are concentrated in an interesting way. Three of them, Argentina, Canada, and the United States, are in the Western Hemisphere. Of the others, the United Kingdom (including Eire), the Netherlands, and Switzerland, are in Europe, with Australia and New Zealand in Oceania. In the next group (500 to 700 International Units), all the countries are in western and central Europe with the addition of Chile.

Incomes in the United States. In the low-income countries there are, of course, some individuals with high incomes. But against these few must be set the large number with low incomes in the high-income countries. This can be made clear by noting the income distribution in two of them — the United States and the United

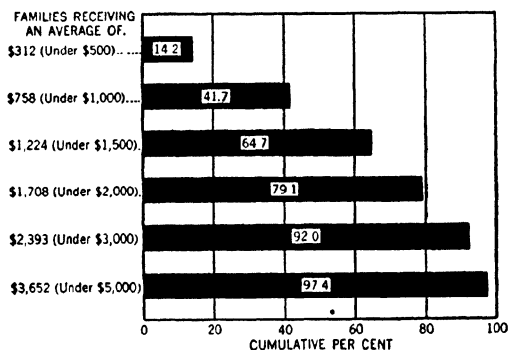


FIGURE 19. Income distribution in the United States, 1935-36. (From a bulletin of the Federal Surplus Commodities Corporation, Washington, United States Department of Agriculture, February, 1940)

Kingdom. In the United States there have been many studies of incomes made during the last thirty years. One of the most thorough and most recent was for the year 1935-36 by the Bureau of Labor Statistics and the Bureau of Home Economics, with the collaboration of the National Resources Committee. Among their findings was that of the 29,400,000 families there were over 4,000,000 families, or 14.2 per cent of the total, with an average income of only \$312 for the year.¹ There were over 8,000,000 other families, or 27.5 per

¹ It must be remembered that these dollars are not identical with those of Colin Clark which he has called International Units, and that Clark's estimates are per occupied person.

cent of the total, with an average of \$758, and 7,000,000 with an average of \$1,224. Nearly two thirds of the families had incomes of less than \$1,500, with an average of \$826 per year. This is shown graphically in Figure 19.

Incomes in the United Kingdom. Another country ranking high in per capita income is the United Kingdom. The estimates of Simon S. Kuznets are that in the period 1923-29 the annual per capita income was \$293 (1913 dollars). Colin Clark estimates 1,000 to 1,100 International Units per occupied worker (1925-34) for England and Wales.² Estimates of the distribution of income within the United Kingdom are not made on the same basis as those for the United States but Table 25 will serve our present purpose. It is taken from the source given but the writer has condensed and adapted the arrangement and calculated the percentages.

TABLE 25
DISTRIBUTION OF INCOME IN THE UNITED KINGDOM

Range of gross income (private income (in £) at the disposal of individuals)	1940-41			1941-42		
	Number of in- comes (in thou- sands)	Aggre- gate gross income (in £ millions)	Per cent of total	Number of in- comes (in thou- sands)	Aggre- gate gross income (in £ millions)	Per cent of total
Under 250	—	3,328	51.90	—	3,398	46.78
250 — 500	3,295	1,069	16.66	4,450	1,490	20.51
500 — 1,000	770	516	8.04	1,050	685	9.43
1,000 — 2,000	250	343	5.34	285	400	5.51
2,000 — 10,000	97	360	5.61	97	360	5.96
10,000 and over	8	170	2.62	8	179	2.46
Other private income		624	9.73		761	10.46
Total Private Income		6,432	100.00		7,274	100.00

SOURCE: British Government White Paper (Cmd. 6438) entitled "An Analysis of the Sources of War Finance and an Estimate of the National Income and Expenditure in 1938, 1940, 1941 and 1942," which was presented to Parliament on April 13, 1943; published in the *Federal Reserve Bulletin*, August, 1943, pp. 729-740.

This table shows the private income at the disposal of individuals, arranged by income classes. Since the presentation is different from that from the United States, close comparison should not be made. But in the United Kingdom, as in the United States, there is a considerable inequality in distribution.

² Readers are referred to the previous discussion of these estimates in Chapter 9.

Unequal Distribution. Sometimes such a distribution of incomes is called "maldistribution," but since this term implies a moral judgment, we shall refer to it merely as "unequal." What significance does unequal distribution have in a survey of world economics? If it is within a country, the result may be internal strain leading at times to revolutionary movements. If it is between countries, it may result in economic friction or even in war. The countries with the lowest incomes, many countries of Africa, for instance, may not effectively protest, but in the intermediate groups, where we find Japan, Italy, Germany, and others, there may be charges of discrimination and oppression, and attempts to correct the situation, perhaps by violence.

Most, though not all, of the countries with the lowest national incomes are agricultural and those with the highest incomes are industrial. Apparently a shift from industry to agriculture would not be a gain. Moreover, with the increased mechanization of agriculture a declining percentage of the working population is needed to supply food. Also, as was noticed in Chapter 6, the amount of cultivable areas of land is diminishing in many parts of the world.

OVERPRODUCTION

From time to time it has been contended that world production is now so large that attempts to increase it are no longer necessary, particularly in some countries in western Europe and in the United States. This view was frequently advanced after 1929 when prices declined sharply and supplies of many commodities glutted the markets, and it was so widely believed that production along many lines was curtailed. In many cases, this was done by private producers who faced a reduced demand for their products, but governments also gave aid to such movements or even required them.

Some doubt is raised, however, when we remind ourselves that only a few years earlier, during and just after the First World War, the opposite idea was expressed. Many contended that there was a rapid growth in the number of people for whom there would soon be "standing room only." After 1929 much was heard of "race suicide" and of "overproduction." When public opinion shifts so definitely within only a few years, we may wonder if either extreme is entirely correct. Economists especially may ask if the fear of overpopulation twenty years ago was not related to the rise of prices and the consequent existence of a "sellers' market." The advance of

prices suggested a scarcity of goods in the face of a rising demand; and the later idea of overproduction may have received so much attention because of falling prices and a resulting "buyers' market," which gave the impression of an excess of commodities. If this suggestion is true, there is still left the task of explaining the price movements, but the only point raised here is that doubt arises when opinions alter so quickly.

Another reason for caution is that in an economy organized for profit, each group of producers seems to believe that its gain will come from higher selling prices. This is to be expected: since "profits" are the difference between costs and receipts and since receipts may be larger if selling prices are high, all sellers are prone to bargain for high prices. There are limits to such gains, since the volume of sales may be greatly curtailed as prices advance, that is, elasticity of demand is involved. Business men are increasingly conscious of this as is shown by the extensive studies that are being made by some of them,³ and by some growth in the practice of lowering prices for the purpose of increasing sales and making profits from a small gain per unit on a large volume rather than from a large gain per unit on a small volume.⁴ Whether this practice is profitable for any given producer or industry is a matter that can be determined only by a careful examination of the costs and the demand schedules of each.

In spite of a growing number of exceptions, the tendency is still strong to raise prices whenever possible and to lower them only under extreme pressures. However, as stocks on hand accumulate and prices decline, much is said of "overproduction" and a curtailment of output may follow if the industry is one in which such curtailment is possible. Sometimes this is called "adjusting supply to demand." Since demand is influenced by price, this expression often means only that the producers are striving to reduce supply to a volume that will result in a price which the sellers consider appropriate. This tendency to seek relief through higher prices that are made possible by reducing supply is attractive because of its relative simplicity and because its indirect effects are often hard to trace.

³ See *The Dynamics of Automobile Demand*, based upon papers presented at a joint meeting of the American Statistical Association and the Econometric Society at Detroit, Michigan, on December 27, 1938, and published by the General Motors Corporation, New York, 1939.

⁴ Nourse, Edwin G., and Drury, Horace B., *Industrial Price Policies and Economic Progress*, and Nourse, Edwin G., *Price Making in a Democracy*, Washington, The Brookings Institution, 1938 and 1944, respectively.

Not only private producers but governments are apt to take this view as is shown by their tendency to encourage smaller supplies on the market through coffee valorization, crop control schemes, and similar devices.⁵

Meaning of Overproduction. There are several possible meanings for "overproduction." Of course it means production in excess of some amount. But above what amount? There are at least three possibilities. Overproduction might mean (1) in excess of human desires; (2) in excess of the usual or ordinary amount; or (3) in excess of the amount that can be sold at a price high enough to cover the costs.

Human Desires. Human desires are determined by many forces. One may believe in the simple life and a few may practice it with humility and satisfaction. Or one may prefer epicureanism to asceticism. One may revel in luxury, in "conspicuous consumption," as it was called by Thorstein Veblen. Undoubtedly individuals differ widely but it seems quite safe to accept the usual statement of the economists that human desires are indefinitely expandible. There are very few persons in the world who would not consume more goods than they now have if they could only acquire them.

Diminishing Utility. But there is another generalization to be noticed. Human desires in the aggregate may not be limited but there is a limit to the desire of each of us for any one commodity, namely, what is called the law of diminishing utility. None of us longs for an indefinite amount of any one article, be it oranges, or suits of clothes, or automobiles. Perhaps the world output of some articles, say of certain food products, is so great that more food should not be produced. Possibly food production should be curtailed. So long ago as in 1885 Simon N. Patten wrote:⁶

There never was a time in the world's history when the population was so well supplied with food and at so little outlay of labor as at the present time . . . a smaller proportion of the population is engaged in agriculture than ever before; and this, not the price of food, is the true test.

Trends in agriculture since these words were written support Professor Patten's judgment. In many countries the percentage of the population engaged in agriculture has declined. Improved tech-

⁵ Backman, Jules, *Government Price-Fixing*, Chicago, Pitman Publishing Corporation, 1938, and Elliott, W. Y., and others, *International Control in the Non-Ferrous Metals*, New York, The Macmillan Company, 1937.

⁶ *The Premises of Political Economy*, Philadelphia, 1885, p. 87.

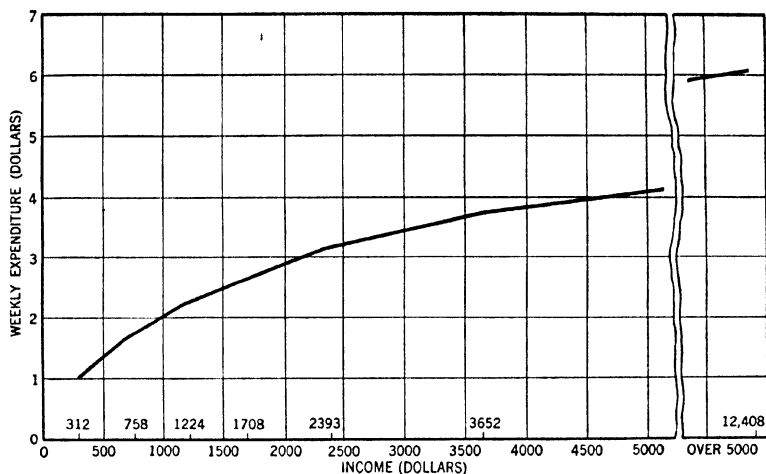


FIGURE 20. Relation between income and weekly per capita expenditure for food by families in the United States, 1935-36. (From a bulletin of the Federal Surplus Commodities Corporation, Washington, United States Department of Agriculture, February, 1940)

niques have sharply reduced the manpower used on the farms and have increased output. This long time-trend continued in the years between World War I and World War II. One estimate ⁷ is that the production per man employed in agriculture rose in the United States by 32.9 per cent from 1897-1901 to 1927-1931. From 1922 to 1929, the total population of the United States increased at an annual average rate of 1.4 per cent, but the farm population decreased at the rate of 1.3 per cent.⁸ "From 1922 to 1926, [farm] production increased 27 per cent while crop acreage remained little changed and the number of workers in agriculture decreased."⁹ One authority observes: "One may even venture to state as a law of economic history that *economic progress, broadly viewed, tends to be accompanied by a decline* in the relative importance of agriculture."¹⁰

But to conclude from these statements that there are not many millions of people throughout the world who desire a larger amount

⁷ Nourse, Edwin G., and associates, *America's Capacity to Produce*, Washington, The Brookings Institution, 1934, p. 38.

⁸ Mills, Frederick C., *Economic Tendencies in the United States*, New York, National Bureau of Economic Research, 1932, p. 417.

⁹ *Technological Trends and National Policy*, Washington, National Resources Committee, 1937, p. 99.

¹⁰ Davis, Joseph S., *On Agricultural Policy, 1926-1938*, Stanford University, Calif., Food Research Institute, 1939, p. 27. Italics are in the original.

of food would be grossly inaccurate. Another glance at Figure 19, showing income distribution in the United States, with 14.2 per cent of the families receiving an average of only \$312 and 41.7 per cent an average of only \$758 in 1935-36, suggests the contrary. This is made vivid by Figure 20, which shows the extent to which the weekly expenditures for food in the same year varied with the size of the income, the range being from \$1.10 per week to \$6.09 per week. If in some way there could be an increase, especially in the lower family incomes, the amount spent for food would be greatly increased. Desires for food are not being adequately met even in the United States.

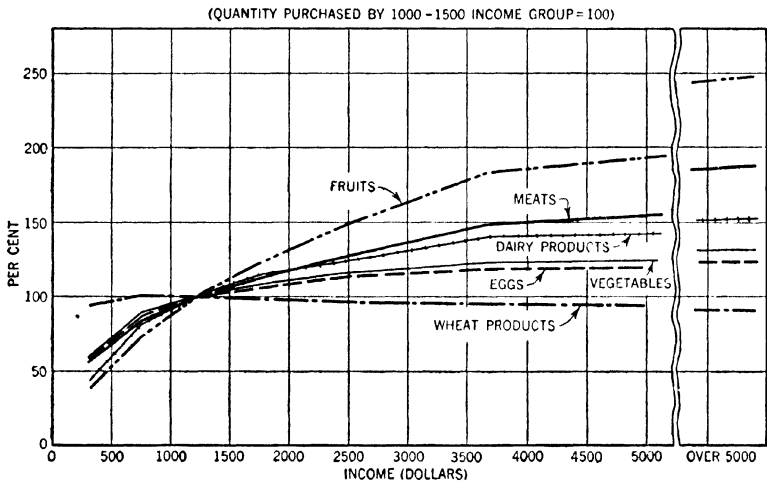


FIGURE 21. Income related to consumer purchases in the United States of various kinds of food, 1935-36. (From a bulletin of the Federal Surplus Commodities Corporation, Washington, United States Department of Agriculture, February, 1940)

This is analyzed more fully in Figure 21, which expresses in percentages (with the income group \$1,000 to \$1,500 equaling 100) the expenditures on a number of leading kinds of food. The percentage spent on wheat products changes but little, in fact, declines somewhat in the higher income groups. But the percentages spent on other foods rise, notably for meats and fruits. It is to be emphasized that these are percentages and not absolute figures. Also, the data collected are expressed in dollars, not in physical units. People with higher incomes may spend the same percentage of those incomes on wheat products as do people with lower incomes, but the number of

dollars spent is larger. This is not quite the same as more physical units, since allowance must be made for the fact that wealthier persons to some extent eat more expensive types of bread, and for other variations.

Nevertheless, there is clearly a desire for larger quantities of food and we cannot conclude that there is in this sense an overproduction of food, even of wheat. There is a very considerable amount of "income elasticity" for food, and even in the United States, where per capita incomes are the highest in the world, much more food would be consumed if people had larger purchasing power. If similar information could be included for other countries, such as China, where incomes are far lower, we would find the possibility of an enormously greater food consumption. This exists in every country and to a greater and greater extent as we pass to those countries where incomes are lowest. When we reach those where, according to the estimates of Colin Clark, the incomes per occupied person are only 200 International Units, which is about one seventh of that in the United States, there is an almost incalculable field for increased food consumption. And it is to be remembered that 60 per cent, or 1,200,000,000, of the population of the world live in Asia and in Africa, where many of these incomes are far below 200 International Units.

Human Needs. Next, a distinction should be drawn between desires and needs. We have been discussing the former but something may be said of the latter. Desires can be determined, at least roughly. People who have purchasing power indicate their desires by the purchases they make (of course within the limits of their incomes). But some of them buy Bibles and others buy whisky or habit-forming drugs. Are these desires an expression of their needs? It is of course difficult to determine needs, and judgments about them vary widely. We often talk glibly of "necessities," "comforts," and "luxuries," but even beginners in the study of economics know how baffling such terms are. We may, perhaps too bluntly, observe that there is no such thing as a necessity in the abstract. Any object is necessary only as it may be indispensable to some result. Thus, food is necessary to the maintenance of life but is not necessary for a person who desires death by starvation. Certainly no particular food, for instance, a loaf of wheat bread, is strictly necessary even for the maintenance of life unless there is no substitute food available.

Nevertheless, it is possible to give a meaning to the word "need," if we make certain assumptions. Thus we may assume (1) that most human beings prefer to live and to remain or become physically fit, and (2) that experts in the science of nutrition can calculate the units of food that are necessary in the aggregate and in such groups as proteins, carbohydrates, fats, and various types of vitamins, if physical fitness is to be acquired and maintained. Other assumptions might be made for other purposes but these have to do with food and with the allegation that there is agricultural overproduction.

Extent of Malnutrition. "Millions of people in all parts of the globe are either suffering from inadequate physical development or from disease leading to malnutrition or are living in a state of sub-normal health which could be improved if they consumed more or different food."¹¹ Another quotation from the same source is: "Although, for example, the average level of incomes in industrialized countries is relatively high, large sections of the population are so poor, owing to the inequality of the distribution of the national income, that they are unable to purchase the requirements of a proper diet."¹² Low incomes mean inadequate food intake, and inadequate amounts of food and improperly balanced diet mean malnutrition. Look again at Figure 20, comparing it with Figure 21. Notice the relatively small quantities of food purchased in the United States by those with incomes below from \$1,000 to \$1,500, and then observe Figure 19, which shows that 64.7 per cent have incomes below \$1,500, that 41.7 per cent have incomes below \$1,000 with an average of \$758, and that 14.2 per cent have incomes below \$500 with an average of \$312.

This is the situation in the United States where the income per capita is the highest in the world. Add to these groups whose food consumption is inadequate in quantity and in quality, the corresponding groups in other countries where per capita income is relatively high. Then add to this total the hundreds of millions in those parts of the world where incomes for nearly all are very, very low. The aggregate is enormous. If we could overcome malnutrition merely by calling attention to these facts, we could immediately urge farmers to devote their efforts to increasing their output of foods.

¹¹ *Final Report of the Mixed Committee of the League of Nations on the Relation of Nutrition to Health, Agriculture and Economic Policy*, Geneva, 1937 (1937.II.A. 10), p. 34.

¹² *Ibid.*, p. 40.

That this has become a matter for general concern was evidenced by the United Nations Conference on Food and Agriculture at Hot Springs, Virginia, in May and June, 1943. A few extracts from its report in the section on "Consumption Levels and Requirements" are:

In many of the poorer countries deaths from tuberculosis number from 150 to 250 a hundred thousand, while among better-fed populations the mortality from this scourge has been reduced to 30 or 40 a hundred thousand. . . .

To provide the food-needs for mankind will require a vast increase in food production in every land. . . .

In India, with its population of nearly 400 million, a considerable proportion of the population does not get *enough* to eat. . . .

In Egypt, undernutrition and malnutrition are found in both towns and rural areas, and pellagra is common. . . .

In Mexico, and in Central and South America, food deficiency and widespread malnutrition exist. . . .

Taking the world as a whole, the picture is one of world-wide underconsumption, leading to malnutrition and its attendant evils.

The Nature of Demand. Unfortunately, the situation is highly complicated. "Demand" is not merely "desire," nor can we say that it always exists even where there is clearly a "need." With economic life as it is organized at present, there must be not only a desire, but purchasing power and a willingness to spend the purchasing power on a particular commodity, say wheat bread, or eggs, or oranges. The unsatisfied desires and needs for food of hundreds of millions of people are to be found among those with low incomes, that is, among the ones who lack purchasing power. Only as their incomes can be raised will these desires and needs be a factor in the market and result in a demand for more food. Moreover, to an important extent, these millions must become educated to their needs, that is, of the importance of certain amounts and kinds of food. This has been summarized as follows:¹³

The connection between money expenditure and the level of nutrition is not a rigid one; there is an infinite number of ways of spending a given sum of money on food, and clearly some distributions of expenditure will give better results, from a nutritional standpoint, than others. This means, in short that through publicity and education it is possible to influence habits of food consumption and induce consumers to distribute their food expenditures in a way which will secure for them a diet more adequate in

¹³ *Ibid.*, chap. 6, "The Relation of Education to Nutrition," p. 280.

essential nutritive properties than that which they now obtain with the same money outlay.

Other Products of Agriculture. Of course more than food is raised on farms. Cotton and wool are illustrations. Hogs are a food product, as are cattle, but hog lard is used as a lubricant and hog bristles for brushes, while the hides of cattle are utilized for shoes, for upholstery, and for other purposes. Soy beans are used in paints and enamels. Alcohol can be made from corn, and experiments have been conducted with cotton in road-building. Rubber is an agricultural product, as are many other articles whose destination is some other purpose than use as food. Accordingly, it is inaccurate to suggest that the "agricultural problem" has been disposed of merely by noting that a smaller percentage of the total population than in the past is now needed to supply the world with food. There are many other purposes than the raising of food for which land may be used and some of them are important.

PRODUCTION NOT BALANCED

Even though we make all due allowance for these other uses of farm products, the raising of food for human consumption is the main occupation of most agriculturists. In time, these other products may so rise in importance that some of the burdens on agriculture will be relieved. But this chapter does not deal primarily with agricultural economics. We are discussing how people live throughout the world. Demand for many articles of food is low because of low incomes. The same can be said, however, of the demand for clothing, for housing, and for the other items that, combined, make up what is often called the standard of living, or better, the "level of living."

An important reason for elaborating the lack of demand for agricultural products and particularly the demand for food is the low income level of agriculturists, yet, on the face of it, an insistence exists that alleged population pressure in some of the industrialized centers could readily be relieved by a shift of millions of people to regions where presumably they would devote themselves to farming. If such migrations were large enough to be significant, agricultural production would be increased in a world whose agriculturists already have low levels of living. It is not easy to see the gain, unless this change is accompanied by sweeping alterations in agriculture.

Many such changes have been effected and others may be feasible, but their development is slow.

Balanced Abundance. Under the circumstances, a more attainable ideal is balanced and stable abundance. Technical knowledge has advanced amazingly since (say) 1800, and the possibilities for the future are even greater than those of the past,¹⁴ but the difficulties of maintaining a steady and well-balanced production seem to grow rather than to diminish in a world that is increasingly dynamic. Many writers have pointed out the tremendous possibilities for production that are now available because of our great technological advance.¹⁵ Some of them, however, seem not to appreciate the economic considerations involved. Under an economic organization of the sort that on the whole prevails in the Western World, and to a considerable extent under any other form of organization, there are certain basic difficulties to be faced. It may be possible to accomplish a vast increase in physical productivity but, unless an appropriate balance can be attained and maintained, the output of some products may glut the market, perhaps in a very few cases because it is really in excess of what human beings could actually consume, but more often because this output is relatively too large.

DEMAND AND SUPPLY IN AGRICULTURE

Inelastic Demand. Both demand and supply must be considered. Reference has already been made to "diminishing utility." None of us desires indefinitely large amounts of any one commodity. Usually, however, we will buy more if prices are low and less if prices are high — assuming, of course, that we have the purchasing power. This is summarized by saying that demand varies inversely with price. But these variations are greater for some commodities than for others. Because of certain basic physical needs the demand for food, for example, for bread, is relatively steady regardless of price. If the price rises, many people buy just as much bread as before and some will reduce their purchases slightly, while, of course, some may starve. Economics somewhere are unavoidable but the tendency is to practice them in other directions, say in the purchase of diamonds or, for most people, by making shoes and clothing last longer, by

¹⁴ See *Technological Trends and National Policy*, Washington, National Resources Committee, June, 1937.

¹⁵ See, among others, Willcox, O. W., *Nations Can Live at Home*, New York, W. W. Norton & Company, 1935, and the writings of the group called Technocrats.

neglecting repairs to the house, or by putting off medical and dental attention and so on.

If, on the other hand, the price of bread declines, there will be only a moderate increase in purchases. Those who do not reduce bread consumption when prices rise will not increase consumption when prices fall. Because of their limited purchasing power, and because of "diminishing utility," even the very poor will not buy much more. The result is that the demand for bread is "inelastic." It fluctuates with price but not very much. The term, it should be noticed, is relative, not absolute.

Income Elasticity of Demand. The inelasticity of demand discussed in the preceding paragraphs is *price* inelasticity of demand (although there has been some reference to income elasticity). All that has been said is that an individual with a given income will react in a certain way towards changes in price. If his demand for a particular article is "elastic," he will purchase considerably more units if prices fall and considerably fewer if prices rise. If his demand is "inelastic," the units purchased will fluctuate less as prices vary.

Another kind of elasticity of demand is income elasticity. If an individual passes from a given low-income level to a higher income level, the distribution of his expenditures will be altered. That there is such a relationship between the size of the income and the distribution of expenditures is familiar to all students of economics. It is most often expressed in the words of Ernst Engel, who compared budget expenditures of working class groups in Belgium some fifty years ago, and concluded:

The poorer an individual, a family, or a people, the greater must be the percentage of the income necessary for the maintenance of physical sustenance, and again of this a greater portion must be allowed for food.

There has been some criticism of this statement¹⁶ but it is still generally accepted as a starting point in analysis. Let us assume that ways can be found for raising the incomes available for such expenditures as the recipients see fit. The amount they would spend would in the aggregate be increased, but the percentage of the increase would not be the same for all items or groups such as food. But the figures in the preceding pages show clearly that in dollars (which at least roughly reflect physical amounts), expenditures for

¹⁶ See, for example, the discussion in Wright, Carl Major, *Economic Adaptation to a Changing World Market*, Copenhagen, Ejnar Munkgaards Forlag, 1939, p. 33.

food are very considerably increased as we pass from the lowest income groups to those somewhat higher. Engel's findings as just quoted are expressed in percentages, but there is also an increase in absolute amounts.

Irregular Supply. Farm commodities are raised for the most part by a very large number of individuals, each of whom produces a vary small part of the total. What each one does or may do has an infinitesimal effect on the market. Also, because there are so many small producers, concerted action of any kind is peculiarly difficult. They cannot readily agree to increase or restrict output. A third influence is the weather, which for the most part is beyond human control, although irrigation and a few other agricultural practices should be noted. Hence output is determined, not alone by acreage planted, but by the amount of heat and rainfall and of other "natural" phenomena. The acreage harvested as compared with the acreage planted varies widely (for instance, in the United States it was 90 per cent in 1922 and only 71 per cent in 1933). Then, too, the yield harvested per acre fluctuates from year to year. Certain data are shown for the United States in Table 26, whose figures

TABLE 26
WHEAT ACREAGE HARVESTED AND TOTAL BUSHELS OF WHEAT
PRODUCED IN THE UNITED STATES, 1919-1934
(In thousands of acres and bushels)

<i>Year</i>	<i>Acreage harvested</i>	<i>Total production</i>
1919	73,700	952,097
1920	62,358	843,277
1921	64,566	818,964
1922	61,397	846,649
1923	56,920	759,482
1924	52,460	840,091
1925	52,441	669,142
1926	56,815	833,544
1927	59,628	874,733
1928	59,226	912,961
1929	63,320	822,180
1930	62,661	889,702
1931	57,103	932,221
1932	57,114	745,788
1933	47,910	528,975
1934	42,235	496,469

should be interpreted with care. The sharp reduction in acreage after 1919 and again after 1930 was related to a general world situation. But the point of importance in this connection is that, no

matter what the causes, the production of wheat is highly irregular.

Flexible Prices. If we bring together what has just been said about demand and about production, the predicament of the wheat grower will be clear. His output is very slightly under control, and even for a large country like the United States the total bushels of wheat harvested fluctuates widely. But if in a given year the output is large and prices start to fall, demand does not rise enough to cushion the price decline. If there is a short crop and prices start to rise, demand does not decline and thus check the advance. As a result, prices for wheat fluctuate between wide extremes. And what is true of wheat is true of agricultural products in general. The demand is inelastic, and the supply varies widely. An illustration here is the variations in the prices of agricultural products and of nonagricultural products for a set period of time. Both rise and fall but the prices of agricultural products fluctuate within much wider extremes. Such prices are called "flexible." Prices which fluctuate less are called "non-flexible" or "inflexible."

Some Consequences of Flexible Prices. Within any one country this means serious strains. When prices are high, or at least while they are rising, producers, say farmers, expand their activities. They buy more land, assume mortgage burdens, and arrange for loans at their banks. These enlarged obligations can easily be carried with wheat selling at \$2.00 or \$3.00 per bushel, but be quite unsupportable with wheat at 50 cents or even at a dollar per bushel. When prices fall, bank loans are not paid and mortgage interest is defaulted with foreclosures, dispossessions, and other tragedies. At the same time, the farmer fails to secure even partial relief through a corresponding reduction in the prices of manufactured goods, which are less "flexible." There follow the many attempts throughout the world to assist agriculture by government action, such as the work of the Agricultural Adjustment Administration in the United States.

But there are international repercussions as well. Many countries, Australia, for instance, primarily export agricultural products such as wheat and wool and import manufactured articles. A decline in the prices of exports, especially since it is not accompanied by a corresponding decline in the prices of imports, means inability to import as much as usual and also difficulty in meeting the charges on past loans from abroad. This has sharp effects in the countries where debt payments are due and from which imports come, in

Great Britain, for instance. Reduced orders from Australia for British manufactured goods are met by curtailed production which means unemployment and widespread distress. British lenders to Australia who fail to receive their usual remittances, also curtail many of their productive activities and perhaps their personal expenditures. All this in turn affects British business relations with other parts of the world. The ramifications are almost countless.

SOME CONCLUSIONS

Any conclusions that may be drawn are largely a statement of difficulties to be overcome. If the ideal to be sought is a higher "level of living," especially for the low-income groups of the world, there are numerous obstacles:

First. Aggregate productivity must be increased. There is no country whose national income is so large that human desires are being met. Even within the United States the number who have "large" incomes is small. In the rest of the world and especially in those countries where per capita incomes are much lower, the reasons for increasing production are far greater. It may be highly desirable to alter the distribution of the national income in some countries, for example, in the United States and in Great Britain, but the resulting gain for those who now have lower incomes cannot be great, since there are so few who are very rich and so many who are very poor.

Second. This enlarged product should be balanced. A mere increase in production may bring confusion, with wild fluctuations in the more flexible prices. Some of the effects of these fluctuations have been indicated, as have the difficulties of attaining and maintaining a fairly good balance.

Third. Human beings desire more food, and many of them "need" it, but this does not call for an indiscriminate increase in food production. Those who desire or need the food must have some way of acquiring it and, if "needs" are to be met, must be educated in their choices. To acquire more food, these millions under the traditional form of economic organization and distribution in the Western World must produce something which they can and will exchange for other commodities. Within limits, society may, through taxation or otherwise, collect a large part of the national incomes and redistribute them in a way that seems better. But there are sharp limits to gains by such methods unless the national incomes themselves are much enlarged.

Fourth. No mere calculation of population densities by countries or other areas, whether it be simply arithmetical or corrected for arability or cultivability or productivity, is adequate if from it is drawn the conclusion that millions or tens of millions of people ought to be moved from one region of the earth to another where population density is lower.

SELECTED REFERENCES

Clark, Colin: *The Conditions of Economic Progress*. London: Macmillan & Company, Ltd., 1940.

The League of Nations: *Final Report of the Mixed Committee on the Relation of Nutrition to Health, Agriculture and Economic Policy* (1937. II.A 10). Geneva: 1937.

National Resources Committee: *Technological Trends and National Policy*. Washington: 1937.

Nourse, Edwin G.: *Price Making in a Democracy*. Washington: The Brookings Institution, 1944.

Nourse, Edwin G., and Drury, Horace B.: *Industrial Price Policies and Economic Progress*. Washington: The Brookings Institution, 1938.

Staley, Eugene: *World Economy in Transition*. New York: Council on Foreign Relations, 1939.

International Labour Office: *World Economic Development*. Montreal: 1944.

United Nations Conference on Food and Agriculture: *Final Act and Section Reports*. Washington: Government Printing Office, 1943.

Wright, Carl Major: *Economic Adaptations to a Changing World Market*. Copenhagen: Ejnar Munksgaards Forlag, 1939.

CHAPTER 11

THE RELATION OF RESOURCES TO PEOPLE

In the first four chapters of this volume we have considered world population — the number of people in the world, their past migrations, their present distribution, and the ineffective efforts that have been made in some countries to encourage population increase. The next four chapters were devoted to a discussion of natural resources, with special attention to climate, land and power, food, and raw materials. In this Section we are examining the relation between resources and people and inquiring whether and under what conditions the resources are adequate.

“THE DISMAL SCIENCE”

About one hundred years ago Thomas Carlyle could call economics “the dismal science.” That he should have so viewed it is not surprising. The “classical” writers had presented a series of generalizations or “laws” which, if true, led to the most gloomy conclusions. There were among them three that are closely related. Two have already been considered in the preceding pages — the “law” of diminishing returns and the “law” of population growth. The third is the “iron law of wages,” which is usually associated with the name of David Ricardo because he was the first to present it with special clarity and emphasis.

It is doubtful whether these three generalizations or any others in economics should be called “laws” or “principles.” Such terms suggest certainty and finality and for that reason should probably be avoided. If carefully presented they are by no means to be ignored, at least as tendencies. As interpreted and applied by many, they may become almost grotesque.

When carefully worded, the Malthusian “law” or “theory” or “principle” or “tendency” is logical and consistent. Population does increase “where the means of subsistence increase, unless prevented by some very powerful and obvious checks.” Malthus’ reference to

checks is frequently overlooked and, in fact, what Malthus called "moral restraint" has become of real significance only within the last few decades.

Add the law of diminishing returns. If there is a point in the application of successive "units" or "doses" of labor and capital to land beyond which the application of additional units does not result in a proportionate increase in product, a serious situation may arise. If population increases there is less food (and fewer natural resources) per capita. This suggests at once the "iron law of wages." Assume a level of wages just sufficient for subsistence. If anything occurs to reduce the output from the land, that is, if the amount of product per capita declines, then a reduction in numbers of people must occur, through starvation, for instance, since by assumption the amount previously available had been merely enough for subsistence. On the other hand, if for any reason the amount of product increases, thus making more of it available per capita, the tendency of population to increase soon means more mouths to be fed. The amount per capita is no more than before, that is, merely enough to permit maintenance at a subsistence level.

When these three generalizations were taken together, pessimism seemed warranted. The conclusions of the economists seemed to support Carlyle's statement. Even John Stuart Mill could say:¹

Hitherto [1848] it is questionable if all the mechanical inventions yet made have lightened the day's toil of any human being. They have enabled a greater population to live the same life of drudgery and imprisonment, and an increased number of manufacturers and others to make fortunes. They have increased the comforts of the middle classes. But they have not yet begun to effect those great changes in human destiny, which it is in their nature and in their futurity to accomplish.

It should be emphasized that the pessimism expressed by Mill and by Carlyle was related to conditions prevalent at the time they wrote — in the middle of the nineteenth century. Population increase was rapid and wages were low. The checks on growth in numbers to which Malthus referred, notably the increase in birth control, were not yet being felt. Statements of the "law" of diminishing returns had included the assertion that it assumed "a given state of the arts." Of course the "arts" of production are constantly changing. The Industrial Revolution had brought great advances in the use of machinery and in other ways. Productivity had in-

¹ *The Principles of Political Economy*, Book IV, chap. VI, sec. 2.

creased but population also was increasing, while the enlarged output was not being distributed in ways that raised the standard of living in western Europe.

That this situation led to discouragement need not surprise us. Most people find it easy to project the present into the future. Yet now we can see that many of the forebodings of the time were unwarranted. Population growth has been retarded and *may* cease or even be reversed, at least in many countries. The "arts" have advanced at an accelerating rate. Productivity not only in the aggregate but per capita has grown, and standards of living have advanced. Today we may argue that in some countries we have passed from a "deficit" to a "surplus" economy. At any rate, the economic predicament of the world today does not result from any lack of what may be called the technical knowledge necessary for a high standard of living, but from the failure to operate our productive machinery fully and steadily and to find ways of distributing the large production of which we are capable.

Modern Cassandras might not characterize economics as "dismal" for the same reasons as did Carlyle, nor find the same causes for pessimism as did Mill, but there are other reasons for concern. As already pointed out, there has been a rapid advance in technical knowledge. Productivity has increased over wide areas. Hours of labor have been reduced and standards of living have been raised for many groups of workers. Undoubtedly, a long list of economic victories has been won. Yet two general difficulties are still to be overcome. One is that the purchasing power in the hands of the majority is not adequate to take regularly from the market all that is being produced. The other, closely related and, in part at least, a result of it, is that economic life is highly irregular, being subject to frequent interruptions. Some, though by no means all, of the difficulty is world wide.

WORLD ECONOMIC STRAINS .

It is not the purpose of this volume to discuss all the economic problems of the day, but only to consider a few in the broad field known as "international." Whether there is any really "practical" way of relieving these economic strains can be questioned, but, in any case, suggestions must be postponed until the concluding chapters. The data presented to this point are entirely inadequate for a judgment.

Population is Concentrated. What has been said thus far should be brought together and some of its implications indicated. Population, with minor exceptions, has been increasing in all parts of the world and is continuing to increase. The "net rate of reproduction" is less than enough for replacement of numbers and, under the assumptions ordinarily made, growth in numbers will soon cease, at least in many countries, and in time numbers will diminish. These assumptions may prove to be incorrect, but even if they are true, growth in many areas will continue for some years. Even if population growth ceased at once there are large numbers of people concentrated in certain areas.

There are many difficulties with the idea of "overpopulation" and "population pressure." But there is no doubt, with people so concentrated and with our present forms of economic organization, that interdependence is very great. It also is evident that the migrations of the last hundred years have done little to lessen this dependence and that adequate relief through future migration is hardly to be expected. Even many of the advocates of migration refer to it as a "safety valve" only.

Whether the tensions resulting from "overpopulation" are based on economic fact or are imaginary, they are not to be ignored. The belief that some areas are overcrowded may have developed because of intensive propaganda but it is widespread. When it is combined with the conviction that free access to food and raw materials and to markets is lacking or limited, resentments are bound to exist. Even if international tensions are to be explained in some other way, perhaps by noneconomic influences, such views are to be reckoned with.

Natural Resources are Scattered. Some proposals for relief are that people should be moved to regions where natural resources are more abundant. But this suggestion overlooks two points. One is that modern society depends upon many resources, not one or even a few. Look again at the maps in Chapter 8. More telephones are used per capita by the people of the United States than by those of any other country. For them to move to all of the places from which thirty-five materials are secured is out of the question. Some might go to one spot and others to other spots, but nothing would be accomplished. There would be even more interdependence than before, since the migrants would still desire many materials that are to be found only or to better advantage in the United States.

Similarly, consider the dependence on the raw materials used in making automobiles and steel products.

Check over the raw materials and foodstuffs mentioned in Chapters 7 and 8 and the sources of power discussed in Chapter 6. Modern civilization wants power whose chief sources at present are coal, petroleum, and "white coal." But most of the coal output today is in some of the areas which are most densely populated. Probably these areas are so densely populated and so highly industrialized because of the accessibility of coal deposits. The sources of petroleum supply are distributed differently and coincide with the leading coal areas only in part. Similar statements can be made about "white coal," or water power. Raw materials also come from widely scattered sources. Only a few illustrations have been given, notably rubber and tin. No strains would be relieved by attempting to move the people of the Western World to southeastern Asia or Bolivia, but new and far worse ones would be created. Applied to cotton, this suggested migration to the sources of supply might mean that India or the southern part of the United States should become the home of large numbers from other countries, perhaps many millions of them. In 1937, the United States furnished 49.6 per cent and India 12.7 per cent of the world supply of raw cotton. Sources of other raw materials that might be mentioned are: copper, 32.5 per cent from the United States and 17.6 per cent from Chile; lead, 24.8 per cent from the United States, 14.7 per cent from Australia, and 12.8 per cent from Mexico; raw wool and mohair, 25.6 per cent from Australia, 12 per cent from the United States, 9.6 per cent from Argentina, and 7.6 per cent from New Zealand; and jute, 99.8 per cent from British India.

Perhaps, however, some relief can be found by encouraging the home production of food. This has been done, notably with the aid of protective tariffs and subsidies. Sugar beets can be grown where sugar cane cannot, if subsidies are granted — as they are. If prices are raised by the aid of protective tariffs, more wheat can be and has been raised in France, in Germany, and elsewhere. But in any given "state of the arts," the law of diminishing returns is to be reckoned with, and the food may be produced only with an expenditure of labor and of capital far greater than would be used in producing other commodities to be exported in return for imported food. The size of the task involved in making some areas of the world self-sufficient in food supplies is suggested by the frequent estimate that

the United Kingdom depends upon external sources for from one half to two thirds of her food.

German dependence is another illustration. One writer ² finds that in spite of the strenuous efforts in that country under National Socialism, by 1938 a gain in self-sufficiency was secured only with potatoes and sugar beets. There was "still the gravest shortage in Germany's food supply," notably in fats. A slight gain in dairy production after 1933 "was made exclusively through imported fodder" — hardly to be viewed as an increase in self-sufficiency. Another writer ³ estimates that Germany (old boundaries) had in 1929 net food imports of \$773,000,000 which had been reduced only to \$607,000,000 in 1937. In spite of strenuous efforts and of some increases in the home production of goods, Germany was still almost as dependent as before upon outside sources. Moreover, these figures are "net," that is, they are the total imports of food minus the exports of food.

"*Natural Resources Have Wings.*" A second argument against moving millions of people from densely populated areas where they are dependent upon food and raw materials that must be imported from distant regions, is that changes are occurring so rapidly in the value of natural resources. Rubber has been an outstanding natural resource for only a few decades. During the Second World War, many countries (and especially the United States) were seriously handicapped because the war cut off importations of crude natural rubber. Strenuous efforts were made to perfect methods of producing "synthetic" rubber and to manufacture it on a large scale. The writer disclaims any knowledge of the industry and hazards no prediction, but it is at least possible that chemists may succeed in producing an article that, for many or conceivably for all purposes, will be superior to natural rubber. If so, natural rubber will diminish in importance as a "natural resource."

Another illustration may be given brief mention. In 1914 Japan exported raw silk worth 161,797,000 yen, and this figure had increased to 742,533,000 yen by 1927 and to 781,040,000 yen by 1929. The value of Japanese raw silk exports was 394,000,000 yen in 1936; 409,000,000 yen in 1937; and 364,000,000 yen in 1938. This reduction was in part, but only in part, caused by a decline in prices

² Stolper, Gustav, *German Economy, 1870-1940*, New York, Reynal & Hitchcock, 1940, pp. 245-246.

³ Lewis, Cleona, and McClelland, J. C., *Nazi Europe and World Trade*, Washington, The Brookings Institution, 1941, p. 178.

rather than in physical volume. One of the causes was the world-wide business depression which brought a reduction in the demand for luxuries and semiluxuries. Perhaps the agitation against the purchase of Japanese goods played a small part. The greater influence was the growth in the production of substitute materials, rayon and nylon, for instance. The total world production of silk and of rayon compared with that of Japan in 1926 and in certain years thereafter is given in Table 27.

TABLE 27
WORLD AND JAPANESE PRODUCTION OF SILK AND RAYON
(In metric tons)

	<i>Raw Silk</i>		<i>Rayon</i>	
	<i>World</i>	<i>Japan</i>	<i>World</i>	<i>Japan</i>
1926	50,397	34,349	96,750	2,268
1929	61,433	42,346	195,840	11,664
1932	52,651	41,590	235,220	31,641
1937	54,370	41,875	545,500	152,395
1939	58,100	45,650	521,150	108,569
1940	57,000	45,000	528,000	102,060

SOURCE: *Statistical Year-Book of the League of Nations, 1935-36*, pp. 124-125, and *1940-41*, pp. 122-123.

The production of silk did not decline greatly after 1929, either for the world or for Japan. But the world production of rayon, a substitute, increased from only 96,750 metric tons in 1926 to 545,500 metric tons in 1937 and was 528,000 metric tons in 1940. Japan entered this field and her output, which was only 2,268 metric tons in 1926, rose rapidly to 152,395 metric tons in 1937, when it was nearly 28 per cent of the world total. By 1940, world output had fallen by about 3 per cent but that of Japan had declined by almost exactly one third. It is too soon to assert that the world market for silk and rayon is largely lost to Japan, but it is clear that (before December 7, 1941) her raw silk industry had for some time been only about holding its own in volume and that the rayon industry was not in a firm position.

Access to Raw Materials Not an Obstacle. There are certain prevalent misunderstandings. One has to do with "access to raw materials." In the Atlantic Charter, President Roosevelt and Prime Minister Churchill stated one of the principles in the national policies of their countries:

FOURTH, they will endeavor, with due respect for their existing obligations, to further the enjoyment by all States, great or small, victor or vanquished, of access on equal terms, to the trade and to the raw materials of the world which are needed for their economic prosperity.

Presumably, this "access on equal terms" does not mean that the element of distance and hence of cost of transportation will be equalized, but that prices and economic factors other than those ascribable to distance are to be equal. But in the case of raw materials, discriminations between the nationals of different countries have in time of peace been remarkably few. Charges of such discriminations have been frequent, and, in 1937, under a resolution passed by the Assembly of the League of Nations in October, 1936, the Committee for the Study of the Problem of Raw Materials was appointed by the Council. In its report in September of that year, the committee summarized its conclusions in the following paragraph:⁴

II. To sum up, the Committee considers that, while certain prohibitions and restrictions can be justified, when they are of the nature of defensive measures, serious objections can be taken to prohibitions or restrictions which are designed to apply pressure to other countries, to preserve uneconomic industries or to maintain an artificial level of prices, either by creating an excessive supply in the internal market, by starving the market or by maintaining monopolies or quasi-monopolies. The Committee has not been able to find any substantial evidence of such impediments; but, in so far as they may exist, it desires that they should be removed at the earliest possible moment and therefore recommends that all nations, either by autonomous action or by an international convention, should bind themselves not to use prohibitions or restrictions on export for such purposes.

It will be noticed that the committee states that it "has not been able to find any substantial evidence of such impediments." Of course this is applicable to times of peace and not of war, and it is not held that there have been no impediments. Instead, the impediments have been few in number and in many cases were not thought to be objectionable. The existence of monopolies some of whose practices are open to criticism was recognized, but the conclusion stated was "that the few natural monopolies in existence do not constitute real obstacles to the circulation of raw materials. Furthermore, so far as the Committee is aware, no complaint or claim has been made in regard to this matter."

⁴ *Report of the Committee for the Study of Raw Materials*, Geneva, The League of Nations, September 8, 1937, p. 14.

It may be emphasized that this has to do with periods of peace and with the past rather than with the future. With this important qualification, it may be noted that the committee report does not support the contention of discrimination in access to raw materials on a national basis. Instead, there is the following significant statement:⁶

The foregoing analysis shows that the solution of the present difficulties in regard to the payment for raw materials is in large part bound up with the solution of wider economic problems which requires concerted action to restore freer circulation of capital, goods and labour. Any progress realized in this direction should help to meet certain countries' complaints in regard to payments for raw materials.

In other words, the difficulties are in a quite different direction. They are primarily to be found in obstacles imposed not to exportation of commodities but to importation. For example, if the Germans felt hampered in acquiring raw materials the cause was not a discrimination against them. On the whole, they could buy on the same terms as nationals of other countries. They were limited by their lack of purchasing power, which in turn was perhaps to be explained by the difficulty or impossibility of selling German products in foreign markets in the face of barriers to imports. There is no one simple answer to all the questions raised, but clearly discrimination in access to raw materials has not been a major obstacle in the past.

Perhaps we may add the observation that this is not surprising. Profound changes are occurring but the general organization of business in the past has been "capitalistic." This is a somewhat vague label but the emphasis has been on production for profit. Business men are eager to sell with as much gain as possible. What they often object to is competition from others, and in the past their efforts have often been directed to excluding foreign producers from their domestic markets.

SOME GENERAL CONSIDERATIONS

There is a temptation to state conclusions in precise terms. This discussion of the relation of natural resources to world population closes with a reminder that precision is not possible. In all directions there are influences at work whose importance at any given time is changing. Some of these are economic but others are legal, political,

⁶ *Ibid.*, p. 27.

or psychological. Then, too, we frequently become aware of factors of which we had not previously known. We are dealing with an unknown and constantly varying number of forces of unknown and continually fluctuating significance. There is a point beyond which precision in analysis and confidence in prediction are hazardous.

Assembling the Evidence. Since population growth is slowing down, there is no longer reason for concern lest aggregate numbers drive standards of living to a starvation level, but hundreds of millions have been and still are receiving such low incomes that the earth is a "wretchedly poor" planet. Moreover, population, with its natural increase that still continues in most countries, is now growing more rapidly in some regions than in others. There may be a downward tendency existing or in prospect in all countries, but with the growth being retarded more in some than in others, relative numbers are being altered. Also, the end of the Second World War is being followed by mass relocations in Europe and in Asia.⁶

Ability to maintain present and prospective numbers at much higher levels of living is generally conceded so long as the discussion is on technical capacity. Technological gains have been even greater than past growth in numbers, and levels of living have advanced; there also is every reason to anticipate even greater gains in the future — but this is technology, not economics and politics, and there is a vast difference between the two fields.

Notice just two points. First, there is a distinct trend toward the secondary and tertiary occupations which permit higher incomes, but with this trend is introduced an element of greater irregularity. The world is more and more subject to the ups and downs known as business cycles. When there is a period of prosperity the level of employment is relatively high and output large. There is a tendency in economic discussion to explain the appearance of crises and subsequent depressions by alleging the lack of a suitable balance between savings and investment, but, regardless of this or any other explanation, the economic output of those engaged in agricultural occupations persists because of the lack of organized controls and of the price inelasticity of demand. In the secondary and tertiary occupations, the situation is different. There is in many of them a more complete concentration of production and more "administrative

⁶ See Kulischer, Eugene M., *The Displacement of Population in Europe*, Montreal, International Labour Office, 1943, and *Europe's Uprooted People*, Planning Pamphlet No. 36, Washington, National Planning Association, September, 1944.

control," and demand for their output can be and is postponed. No matter what the technical possibilities, sales decline and production is curtailed.

A second fact is that political pressures are often applied to protect producers seriously affected by competition, particularly that from imported commodities. Trade barriers are raised and subsidies are granted. When one country acts others may retaliate with an aggregate of restrictions on markets that results in a further slowing down of production in secondary and tertiary occupations and a clogging of the markets with the output of many primary commodities.

Human Desires. It may be remembered that human wants are capable of indefinite expansion. There are a trifling number of human beings who have such large personal incomes that all of their economic needs or even desires are satisfied. But they are so few as compared with the hundreds of millions of others with very low incomes that we may ignore them here. The masses of mankind have incomes below any acceptable estimate of need, and even if some of the known standards for physical and mental efficiency could somehow be met, most of the people of the world would desire an indefinite number of "comforts" and "luxuries" beyond these "necessities."

Are Natural Resources Adequate? Natural resources are *relative* and *functional*. As incomes rise and are spent by human beings in accordance with their desires, there is an increase in demand. In "a given state of the arts," this means that more and more sacrifice is involved in securing an increased production. Moreover, a rise in income has in the past meant certain shifts in demand. Low-income groups having less to spend have concentrated their food purchases on such items as cereals and potatoes and rice. People with higher incomes turn more to meats and dairy products and fruits. But the amount of land needed for the raising of animals, which are in turn consumed by human beings, is from four to ten times as great as the area needed for raising cereal products, which are consumed directly with little or no processing. Accordingly, a general rise in incomes puts an added pressure on productive capacity. Agricultural land now in use may be sufficient to meet or more than meet the current market demand for food, but be less adequate or even inadequate to meet a demand which has shifted to other products.

Technological Progress. For many years the "state of the arts" has been changing, and in most countries a diminishing percentage of the

total population has been able to provide the food demanded. This suggests an emphasis on the generosity rather than on the niggardliness of nature, particularly when it is remembered that world population increased very rapidly during the nineteenth century. It is possible to speak of the passing of the world from a deficit to a surplus economy. This view gains further support from the fact that population growth is slowing down in many areas where net reproduction rates are at or below unity. If numbers remain stationary or diminish, natural resources exploited with an improved technology may be adequate to meet a rising demand.

Although this retardation in population growth has appeared quite generally, there is still a "natural increase" in nearly all countries. If present trends continue, the peak will soon be reached in a number of them but, even so, these countries account for only a minority of the total number of human beings. Some 60 per cent of the aggregate are in Asia and in Africa where birth rates are still high. Even if these birth rates should decline with considerable rapidity, it may be anticipated that death rates also will decline and age expectancy be increased. For many years to come, there will in all probability be an increase in total numbers with an alteration of distribution in the various age brackets.

If any conclusion can be stated, it is merely that there is no such thing as a clear-cut answer to the questions raised. Demand constantly changes both in total amount and in direction. Supply grows as stimulated by demand, and productive effort shifts as different products are called for. Over many years improving technology has been adequate to permit a rapid rise of per capita incomes in many countries. There is no reason for pessimism about future trends but every reason to expect strains as changes come with ever increasing rapidity. In the future as in the past, no permanent balance between demand and supply may be expected. Instead, there will be shifts of both with continual adjustments.

Possible Trends. We may properly proceed with such knowledge as we have about the following trends: (1) population growth is slowing down in many areas; (2) population will probably increase for years to come in other areas, notably in eastern Europe and in Asia, where numbers of people will doubtless be a much higher percentage of the world total in the future than in the past; (3) these increases and shifts, whether desirable or otherwise, will not be altered by mere pleas to increase numbers or to reduce them, but by

an advance in per capita incomes whose effect, judging from the past, will be to cause a decline in birth rates and in death rates with an ultimate gradual decline in the net rate of reproduction; (4) technical knowledge is such that an increase in per capita incomes is possible if certain economic and political difficulties can be surmounted; and (5) unless and until there can be more unanimity of action there is little prospect of removing these difficulties.

SELECTED REFERENCES

Kulischer, Eugene M.: *The Displacement of Population in Europe*. Montreal: International Labour Office, 1943.

The League of Nations: *International Currency Experience*. Geneva: 1944, chap. VIII.

Mather, Kirtley F.: *Enough and to Spare*. New York: Harper & Brothers, 1944.

Staley, Eugene: *World Economic Development*. Montreal: International Labour Office, 1944, chap. XIII.

CHAPTER 12

ARE WORLD RESOURCES SUFFICIENT FOR WORLD POPULATION?

Even a cursory survey of population studies shows that attitudes constantly change. During the early nineteenth century, there was deep concern over the growth in numbers and the low standards of living. As the years passed, incomes began to rise and less was heard about the pressure on food supplies until some years after the opening of the twentieth century. The general dislocation in international economic relations particularly after the First World War brought a wave of pessimism. Although the rise of Neo-Malthusianism may be traced to the middle of the nineteenth century, active agitation against the dangers of population pressure did not come until this later period.

Within only a few years, however, discussion shifted to the opposite extreme. With the coming of the world-wide depression, more was heard of "overproduction" than of "overpopulation." It was contended that more could be produced than could be consumed. The downward trend of birth rates in many countries was noted and caused deep concern. Efforts were made to increase birth rates with the very dubious results that have been noted in earlier pages. Currently, emphasis is being placed on net reproduction rates that are below unity in many areas and far above unity in other areas, notably in eastern Europe and in Asia. So much has been said about population pressures, that we are warranted in giving some attention to the idea in the hope that it can be clarified.

IS THERE A POPULATION PROBLEM?

A problem is "a question posed for solution." This suggests that there is in our minds a belief that either the quality or the quantity of people in the world as a whole or in certain parts of the world may be considered unsatisfactory and that we should seek for a way by

which the quality or the quantity should be adjusted to the ideals we may have in mind. These ideals are optima.

The Meaning of Optimum. "Optimum" in this discussion has to do primarily, though not entirely, with quantity rather than with quality. What is an optimum number of people? How is it to be determined? If the term has any meaning there is such a thing as "overpopulation," or a number in excess of the optimum, and "underpopulation," or a number fewer than the optimum. There may be "population pressure" or a "population vacuum." The optimum may be one for the world as a whole, or for some particular part of the world. If there is a scarcity in any area, the "requirement" may be to increase numbers by means of a rising birth rate, a falling death rate, immigration, or some combination of them. If there is overpopulation and the requirement is to reduce numbers, the question is how to do it, and the methods that will be effective may be an increase in the death rate, a decrease in the birth rate, emigration, or some combination of these methods. Or, as much of this volume will make clear, relief from overpopulation may come from adjustments in human relations that will lessen the pressures. In the earlier part of the nineteenth century, many observers talked and wrote of population pressure in Great Britain but, as the national income expanded, the subject received less attention until after 1918. During the following years of economic depression, there was a revival of the belief in overpopulation in that country.

OPTIMUM QUALITY OF POPULATION: NATIONALITY AND RACE

In the pages that follow, attention will be given primarily to the idea of an optimum number, but first a few comments should be made about optimum quality. This seems especially pertinent today since there has been so much said in recent years about the superiority of certain national or racial groups, as the contention attributed particularly to the Germans that they are a superior "race."

That the people of a given national group react in special ways may be conceded. The issue raised is whether their way of behaving is determined by heredity or by environment. On the answer given will depend the policies adopted in endeavoring to adjust the international tensions with which we are confronted. If the United Nations believe that the Germans and the Japanese are different from themselves because of biological inheritance, one line of action may

be appropriate. If, however, the differences observed are to be explained by climate, by food, by history, by education, by traditions — in other words, by environment, by “nurture” rather than by “nature,” some other approach will be more promising.

On one or two matters we may speak briefly and with assurance. The first is that individual human beings differ greatly by “nature.” It may be difficult in a given case to decide what characteristics of an individual are to be explained by heredity rather than by environment but there seems to be agreement that some are inherited. Our concern is not with these differences between individuals, but with the alleged differences between groups known as nations or as races.

A second assertion may be made. If by a nation is meant such groups as the French, the Germans, the British, or the people of the United States, there is no ground for the assertion that any one of them is a separate biological or racial group. No matter how “race” may be defined, the people of the United States of America are a mixture, as are the people of many other countries. No matter what may be the characteristics of a given national group, they can not well be explained by a reference to biological inheritance.

No Demonstrable Race Differences Exist. But there is a very common belief that the people of a given race differ from those of another race in ways that are to be explained by inheritance rather than by physical environment or by institutional background. The concept of race is one that rests upon inherited characteristics, but the issue is whether there are differences other than those presently in use as the basis of the classification and whether the people of one race are superior to or inferior to those of other races.

Two definitions of race may be given. One is as follows:¹ “To the scientist, race is a classification based on hereditary traits combined in any individual according to the laws of genetics; except under conditions of primitive isolation, human races show endless gradations and mixtures.” Another is:² “In biology a race is defined as a subdivision of a species which inherits physical characteristics distinguishing it from other populations of the species.” Illustrations of such distinguishing characteristics are skin pigmentation and texture of the hair.

As thus viewed, the number of races is not large, no matter how

¹ Benedict, Ruth, “Race Problems in America: Defending America’s Future,” *The Annals of the American Academy of Political and Social Science*, July, 1941, p. 73.

² Ashley-Montague, M. F., *Man’s Most Dangerous Myth: The Fallacy of Race*, New York, Columbia University Press, 1942, p. 2.

generously the definition is applied, and, in most modern countries, there is to be found a mixture of races. The United States of America is a clear illustration, but most of the countries of Europe have populations scarcely less mixed. The people of France, of Great Britain, of Germany, and of other countries are of different racial strains that have become inextricably mingled. There is no French, British, Italian, or German race. If the people in any of these countries, or in most other countries, have, or claim to have, any peculiar qualities, the explanation must be found in something other than race. They are national, not racial groups.

But even where scientists detect the existence of a separate race, they find no conclusive proof of superiority or inferiority. "There are superior and inferior individuals, but *nobody has ever proved that the achievements of a people depend upon their innate, hereditary abilities. These are historically determined.*"³

In December, 1938, the American Anthropological Association unanimously adopted the following resolution:

Be it resolved that the American Anthropological Association repudiates such racialism and adheres to the following statement of facts:

1. Race involves the inheritance of similar physical variations by large groups of mankind, but its psychological and cultural connotations, if they exist, have not been ascertained by science.

2. The terms "Aryan" and "Semitic" have no racial significance whatsoever. They simply denote linguistic families.

3. Anthropology provides no scientific basis for discrimination against any people on the ground of racial inferiority, religious affiliation, or linguistic heritage.

Since the belief in racial and national differences is so widespread, there may be added statements by two other scientists. One is by Gunnar Dahlberg of Sweden, who observes:⁴

Even the differences between nations seem to be trivial ones. The hatred between them, now driving Europe to destruction, cannot be justified by inherited differences established by scientific research. Between nations there are differences of tradition and culture, speech, habits of life, behavior, government; but such differences do not depend on different racial characters . . .

Neither with reference to the nations of Europe nor to special groups within each nation have we really any reason to believe that there are

³ From a pronouncement by The American Committee for Democracy and Intellectual Freedom, July, 1939.

⁴ Dahlberg, Gunnar, *Race, Reason & Rubbish*, New York, Columbia University Press, 1942, pp. 211, 216.

qualitative race differences. Nor have we any reason to believe that any particular people is appreciably worse than any other.

Another statement is by M. F. Ashley-Montague, whose definition of race has just been quoted. He observes:⁶

. . . significant or innately determined mental differences between the varieties of mankind have thus far not been demonstrable. It may be that some such differences do exist, but if they do they have so far successfully eluded every attempt to prove their existence.

It is to be carefully noticed that these authorities do not deny the existence of innately determined mental differences between individuals. Nor do they contend that there are no important differences between groups, racial or ethnic. Such differences between groups do exist, but, again quoting:⁶

An "ethnic group" represents one of a number of populations, which populations together comprise the species *Homo sapiens*, and which individually maintain their differences, physical and cultural, by means of isolating mechanisms such as geographic and social barriers.

We may accordingly summarize as follows: (1) a sharp distinction is to be drawn between race, which is a biological fact, and nationality, which is a social fact; (2) many alleged racial distinctions are quite imaginary; and (3) even where races can be distinguished, there is no conclusive proof that "some races are superior to others in intellectual capacity, enterprise, morality and physique."⁷ The argument over the relative importance of heredity and environment, of nature and nurture, goes on, but in the following pages heredity will be assumed to be significant as an explanation of the characteristics of individuals and not of national or even of racial groups, excepting of course those physical differences used as a basis for the classification.

AN ECONOMIC OPTIMUM OF POPULATION

Noneconomic Values. This approach is not intended to be an assumption that an economic optimum is superior to some other. Whether the author of "The First Book of Moses, called Genesis" was considering economics when he wrote, "Be fruitful, and mul-

⁶ *Op. cit.*, p. 49.

⁶ Dahlberg, Gunnar, *Race, Reason & Rubbish*, New York, Columbia University Press, p. 73.

⁷ Gillin, J. L., Dittmer, C. G., and Colbert, R. J., *Social Problems*, New York, D. Appleton-Century Company, 1928, p. 208.

tively, and replenish the earth," we need not inquire. The "chief end of man" may be to "glorify God and to enjoy Him forever," as asserted in the *Westminster Shorter Catechism*. Perhaps those are correct who refer to money as "the root of all evil," thus misquoting the Apostle Paul (1 Timothy 6:10), who really said: "The love of money is the root of all evil." There is no occasion to argue for or against the merits of asceticism or of any other attitude toward life. It is well worth while, however, to discuss the economic optimum. If ultimate values are noneconomic and can best be attained with more or less than the economic optimum of population or of some other productive factor, we shall at least have some idea of the economic sacrifice involved in attaining a noneconomic goal.

Economic Optimum. A Definition. Optimum means best and the "economic best" in population is thought of by some as the number of people just sufficient and no more than sufficient for a maximum productivity. This may at first seem clear, but only a little reflection shows that explanation or elaboration, or perhaps some modification, is needed. First, is the desired maximum a total or per capita? All students of economics are familiar with the "law of diminishing returns," namely, that "in a given state of the arts, after a certain point has been reached in the utilization of land, increasing applications of other productive agents to land will yield less than proportionate returns in product." Assume a given area, say that of France. If there are in France only a very few laborers, the productivity of the country, that is, the national income, may be less than if there were more. If the number of laborers is increased, the productivity may be enlarged both in the aggregate and per capita. But if numbers continue to grow, a point will be reached (everything else being equal) beyond which the addition to the product is not proportionate to the additional number of laborers. It should be noticed that the total productivity may be increased considerably beyond the point of diminishing returns, but that this point marks the turn from a growth in product per capita to a decline in product per capita.

Per Capita Optimum. Consequently, the tentative definition just given for an economic optimum of population may to some be unsatisfactory. If many interpretations of conditions in Germany are correct, the Nazi leaders of that country seemed to be seeking a maximum national product at the expense, if need be, of a per capita reduction. Whether this is to be approved for any country at

any time, clearly depends upon many considerations into which we can not now enter. If, however, we assume that the economic welfare and hence the economic income of the individual is to be the permanent consideration, then the words "per capita" should be added to the definition.

One formulation is worded as follows:⁸

The optimum population corresponds to a size which, other things being equal — i.e., on the assumption that the other factors of production (soil, resources, capital), as well as scientific and technical culture, remain constant — is capable of ensuring the greatest economic return per capita.

Even this definition is not accepted by some writers, at least, if "overpopulation" is used to designate numbers in excess of this optimum. Says Dr. Charles A. Burky of Switzerland:⁹

Overpopulation is an improper term, the very incorporation of which in social terminology constitutes a danger. Overpopulation in the last analysis is the sentiment of a class, of the educated and ruling class, and of a few countries of high density.

Another writer who believes that population pressure is among the causes of war but that the term should be used very carefully, is Professor Frank H. Hankins of Smith College. One of his statements, which indicates the complexity of the concept and the difficulties of using it, is:¹⁰

This view translates population pressure into economic pressure. Not that the two are synonymous, but that, once it is seen that population pressure is not mere density or mere numbers, but must include as an integral part of its definition the customary standard of living and the normal life expectations of the population, then it becomes clear that population pressure makes up a large part of the wider concept, economic pressure.

Now economic pressure, like all causes of war, must be translated into psychological terms. In such terms it appears to be uniformly low among a poverty-stricken population, no matter how dense. It appears to reach its maximum in a high-standard population having a well-integrated national life, when its standard of living is reduced by economic policies applied by other nations.

⁸ Ferenczi, Imre, *The Synthetic Optimum of Population* (International Institute of Intellectual Cooperation), Paris, The League of Nations, 1938, p. 42.

⁹ *Peaceful Change*, Proceedings of the Third International Studies Conference, Paris, June 28 to July 3, 1937, Paris, 1938, vol. 2, pp. 121-122; also New York, Columbia University Press, 1938-39.

¹⁰ "Pressure of Population as a Cause of War: Present International Tensions," *The Annals of the American Academy of Political and Social Science*, July, 1938, p. 104.

Critics such as Dr. Burky are in a minority. Others accept the definition as useful although the difficulties in its application are overwhelming. Thus, Professor Adolph Landry of France states:¹¹ "One may say that there is overpopulation when the population exceeds the optimum." Yet he adds to this definition, which seems to be absolute, another, which is relative, namely:¹² "a country is overpopulated in relation to another country when its standard of living is lower than that in the latter."

The Absolute Economic Optimum. There are thus both economic and noneconomic tests for the optimum. Also among the economic tests we may distinguish between the absolute and the relative. Even the expression "absolute optimum" may have more than one meaning, since the economic tests are not at all easy to apply without some reference to noneconomic matters. If by "absolute" is meant those numbers that will make possible the maximum national income, then in an endeavor to attain this goal, numbers might be increased until further additions would result in a diminished total income. But after the point is reached where the influence of diminishing returns is felt, there will be a smaller income per capita. This might continue even to the subsistence level and one could not until then speak of overpopulation.

Since, however, the loudest complaints today come from countries whose people are clearly above a subsistence level, it is better to accept the standard already suggested, namely, the maximum income per capita.

The Relative Economic Optimum. It seems more than probable that the relative optimum is fully as important, if not more so. But relative to what? Two uses may be noted. Of course, the numbers of people in any area are constantly changing. If, however, we assume that in any one country, A, the numbers remain constant, there may be a change in national income — total or per capita or both — owing to some internal or external cause. Assume a bad crop year in A caused by an excessive rain or drought or cold or heat. Or assume a prolonged economic depression resulting from whatever it is that causes such disturbances. Income is reduced. It is lower than in the past. Thus, in the years after 1918, the national income of Great Britain was under continual pressure. After 1929 the same was true in the United States and in many other countries. Incomes in these countries were lower than before.

¹¹ *Peaceful Change, op. cit.*, vol. 2, p. 122.

¹² *Ibid.*

It has been no mere coincidence that claims of population pressure, demands for *Lebensraum*, and attempts at territorial expansion were most noticeable after the world crisis starting in 1929. In most countries of the world incomes were driven down to a level lower than that of the past.

Also, the difference may be between the incomes in different countries. A glance at Tables 23 and 24 in Chapter 9, which give the estimates of national incomes prepared by Simon S. Kuznets and Colin Clark, shows how much larger incomes are in some countries than in others. No matter what the causes of such differences, it has been easy for people in certain countries (as in Germany, Italy, and Japan) to notice that their incomes were perhaps not only lower than in the past, but also that they were lower than in certain other countries, and to connect this observation with their population densities. Whether careful students agree with their diagnosis or with their remedies will not be likely to make any difference in such attitudes.

It should be noted in passing that these complaints have not come from those peoples whose incomes are the lowest, for example, the people of China and India. Perhaps some of them have the same urge to extend their areas of control and for the same reasons, but they are so lacking in economic strength that efforts at territorial expansion would be futile.

The optimum density of population we shall assume to be the number just sufficient for a maximum productivity per capita. Numbers of persons per square kilometer (or square mile) of superficial area may be very few and productivity very low, as in a desert region. These numbers may be fewer than, greater than, or exactly equal to, the optimum. In another region the density calculated in the same manner may be much greater, as it is in England and Wales, where the national income per capita is one of the highest in the world. In this area, too, the numbers may be the optimum or above or below it.

THE OTHER FACTORS OF PRODUCTION

There are many other matters to be considered. Density *per se* is clearly not a test. Not mere numbers of persons will determine productivity. Their quality is of the highest importance. But quality is in itself complex, since it involves strength and skill and health and other elements. Productivity may be low, with little relation-

ship to numbers, if malaria, or pellagra, or hookworm disease is prevalent. General intelligence and education are important. Next are natural resources, capital, and guidance or management.

Natural Resources. In Chapter 9, attention was called to the attempts to express population density in terms of arable area and productive area. In Japan, the density per kilometer of superficial area in 1937 was 186.3. The density (at other dates) per kilometer of arable area was given as 993, and of productive area as 199. Even such calculations as these must constantly be adjusted to changing conditions. The productivity of South Africa and of Australia was suddenly raised when gold was discovered in these two areas, and again altered when new processes of gold extraction (the chlorine and the cyanide processes) came into use, with the result that additional square kilometers became productive. Exhaustion of gold deposits reduces the area of productivity, but devaluation of gold monetary units raises it, at least temporarily. Productivity in Chile slumped greatly when the market for natural nitrate was suddenly reduced by the enlarged manufacture of artificial nitrates and then raised by the reduction of costs of production. Natural resources are not unalterable economic facts, but are constantly changing.

Capital. Capital — tools and machines — is another factor. Two centuries ago, productivity in the United States was low. Of course, low total product was in part caused by a sparse population. Low per capita product was also to be explained by the lack of capital equipment, a condition that has been greatly altered as the years have passed. The important fact, as with population, is not the mere numbers, or the weight of the tools and machines. The number of cotton spindles in Great Britain might remain unaltered through a period of years, but if during these same years more spindles came into operation in other countries, as they have recently, the productivity of the spindles in Great Britain might decline. This is well illustrated by the fact that there were on July 1, 1913, a total of 55,563,000 spinning spindles in that country, including those under construction. On February 1, 1929, there were 55,917,000, a slight increase in numbers accompanied by a great advance in quality. Yet, to name only one item in the various forms of cotton manufacture, the exports of cotton piece goods from Great Britain, which were over 7,000,000,000 linear yards in 1913, were less than 4,000,000,000 yards by 1928 and below 1,570,000,000 in 1938.¹³

¹³ *The Board of Trade Journal*, July 20, 1939, p. 89.

Economic Organization. There may be added to the influences affecting productivity the amount and quality of administrative direction, thus bringing into the picture all of the traditional factors of production. Still following the usual analysis, it may be noted that the optimum number of persons, or the optimum population density, depends on many things. Some of them are: (1) the relation to superficial or arable or productive area; (2) the quality of this population; (3) the percentage who are actually engaged in production as compared with those who, because of youth, or old age, or indolence, or incapacity, or receipt of unearned income, are not producers; (4) the available capital and its quality; (5) the strength of competing production in other countries; and (6) the general condition of business, notably the position in the business cycle.

At any given time the optimum may be said to exist when there is just that combination of all of the productive factors which will give the maximum product per capita. Instead of the law of diminishing returns mentioned in Chapter 11, it is better to use the broader generalization known as, "the law of diminishing productivity":

In a given state of the arts, additional inputs of any productive agent used with a fixed quantity of other agents, will, after a certain point has been reached, yield progressively smaller increments of product.¹⁴

Even if we assume omnipotent and omniscient direction of the economic life of a country, this description of a condition of economic optimum is far from simple. Since even dictators fall far short of omniscience and are not completely omnipotent, even in those countries where they are most powerful, and since there are many countries where a considerable amount of *laissez faire* still prevails, it may be assumed that an exact economic optimum is nowhere to be found. Moreover, within a given country there will be great variations from one industry to another and from plant to plant within an industry. And, finally, conditions at home and abroad change so rapidly that existing relationships are constantly being altered.

CHANGING ECONOMIC CONDITIONS

Increased Agricultural Production. There are many such changes that could be mentioned, but only two will be indicated. Among the important ones in recent years has been that of agriculture. There

¹⁴ Bye, Raymond T., *Principles of Economics, A Restatement*, New York, F. S. Crofts & Co., 1946, p. 86.

have been vast improvements in agricultural technology that have seriously affected the economic status of agriculturists. As these improvements have been introduced and have lowered the costs of production, and as the growth of population in many parts of the world has been retarded, the relative position of agriculture has been altered.

Estimates of the effect of some of these changes have been made. One of them for the United States is by O. E. Baker of the United States Bureau of Agricultural Economics, who states¹⁵ that, taking the "agricultural production per male employed in agriculture during the five years centering on 1899 as 100," we get the following:

1897-1901	100.0
1907-1911	97.2
1917-1921	107.6
1927-1931	132.9

Another comparison for the United States is in an estimate of the man labor required during different periods for the production of wheat, corn, and cotton.¹⁶ It may be condensed as follows:

	<i>Man labor in hours per unit</i>		
	<i>1878-1882</i>	<i>1898-1902</i>	<i>1928-1932</i>
Wheat (100 bushels)	129	86	49
Corn (100 bushels)	180	147	104
Cotton (500 pounds)	304	285	235

All over the world there have been demands that "something be done" for agriculture. Much has been attempted through many kinds of subsidy, the assistance given being all the greater because the fear of war has increased the tendency toward national self-sufficiency. While this aid, in the form of import duties, quotas, direct subsidies, and so forth, has grown in some countries, the populations of other countries that had been adjusted to the production and export of food and agricultural raw materials, such as cotton and wool, find their position sharply altered. What had been perhaps an approximation to an economic optimum of population no longer existed.

It should be added that similar changes have come in other lines of production. A recent analysis¹⁷ attempts to estimate the reduc-

¹⁵ See Nourse, Edwin G., and associates, *America's Capacity to Produce*, Washington, The Brookings Institution, 1934, p. 38.

¹⁶ *Technological Trends and National Policy*, Washington, National Resources Committee, June 1937, p. 101.

¹⁷ Fabricant, Soloman, *Labor Savings in American Industry 1899-1939*, Occasional Paper 23, National Bureau of Economic Research, New York, November, 1945, pp. III and IV.

tion in "manhour requirements per unit of product during the four decades bounded by 1899 and 1939" for the entire economy of the United States. The author concludes "that for the economy as a whole the decline from 1899 to 1939 in persons employed including the self-employed, per unit of product has been about 40 per cent" but that "the corresponding increase in national product per worker, some 70 per cent, does not reflect the total gains from enhanced productivity" because hours of labor per week also declined with the general result that "in terms of output per manhour, the increase in productivity has been about 100 per cent."

Fewer Consumption Goods. Another kind of change is found if the relation between production of consumption goods and capital goods is altered. Assume in a given country that the economic optimum of population exists. Assume, next, that a part of the population formerly producing consumption goods is diverted into the making of tools and machinery, that is, diverted to the construction of railways, engineering projects, and the like. The current production of food, clothing, and so forth, is reduced, presumably for the sake of a larger flow of consumption goods in the future. But, for the time being, there are fewer of these goods per capita for immediate use and the economic optimum, at least for consumption goods, is upset. And if productive effort has been diverted to the manufacture of armaments, there is not even the hope of a resulting future enlargement in the production of consumption goods. This change is thought by many observers to have occurred in Germany in the years subsequent to 1933, with a consequent fall in the current income of the German people, that is, in the form of consumption goods. There may or may not have been an economic optimum of population in the country prior to 1933, but if there was it is widely believed that the optimum has been destroyed and for a long time to come. Or, if there had been overpopulation, the lack of balance has been increased.

THE WELFARE OPTIMUM

Any economist who has read the preceding paragraphs will realize that we have barely "scratched the surface."¹⁸ But all that is being attempted is to indicate that such terms as "overpopulation" and "population pressure" are far from simple. Policies formulated and

¹⁸ For a much more elaborate treatment, see Penrose, E. F., *Population Theories and Their Application*, Stanford University, Calif., Food Research Institute, 1934, especially chap. II, *The Income Optimum Population*.

perhaps applied on the naive assumption that the ideas involved may be easily embodied in legislation and in administrative action are almost sure not to accomplish their purpose.

There is another idea of correct numbers which is known as the "welfare optimum." It may well be that "man doth not live by bread alone." Many persons prefer leisure to an indefinite enlargement of income. There are plenty of people who would rather utilize a part of their time for enjoyment than work the exact number of hours that will yield the maximum returns. It is not to be denied that there is a tendency to demand the same or larger pay for a reduced working time, but there is no difficulty in finding illustrations of a desire to reduce toil, even with some sacrifice of income. There is a growth in recent years of "education for leisure." Much is said in support of the view that in some countries, in the United States, for instance, we have passed from a "deficit economy," in which every effort was necessary to secure a maximum income, to a "surplus economy," in which we may deliberately curtail our efforts, producing less than we might with a view to enjoying more completely incomes somewhat less than we could have.

What is Welfare? If the "economic optimum" presents difficulties, the "welfare optimum" raises far more. What is welfare? Who is to decide its meaning? What aggregate amount of income makes "welfare" possible, and what distribution among articles of consumption is necessary to secure it? Some may suggest a longevity optimum, others a maximum of education, of health, or of time for reflection. The possibilities seem infinite, with also an infinite amount of disagreement. Is welfare merely the sum total of what individuals desire, no matter whether emphasis is placed on Bibles or on whisky? Or is there a something-or-other to be called "social welfare"? If the former, we can merely let "natural laws" operate (which involves the assumption that there are "natural laws"). If the latter, how shall we give precision to "social welfare"?

There is undoubtedly a danger of vagueness in the use of such a term as "welfare." Those who find satisfaction in adding together pounds or yards or cubic feet, or in determining the wealth of a community by totaling the prices of all the units of all the items of income, may insist that those who attempt to define welfare and to formulate policies accordingly are mystics.

But listen to Walter Rathenau:¹⁹

¹⁹ Rathenau, Walter, *In Days to Come*, New York, Alfred A. Knopf, Inc., 1921, pp. 78-79.

If from the outlook of this order of importance (elementary and urgent need) we contemplate the world's production of goods, we realize with a terrible sense of shock the fatuity of contemporary economic life. The superfluous, the null, the harmful, and the contemptible, are heaped up in our shops. We find there the useless gauds of fashion destined to glitter for an hour with a spurious light; intoxicants, stimulants and anodynes galore; nauseating scents; worthless imitations of industrial and artistic models; articles made not for use but for show, trash of all kinds which serves as the small change for those who are compelled by convention to give one another presents. . . . The manufacture, transport and sale of such articles require the labour of millions of hands, demand raw materials, coal, machines and factories; occupy nearly a third of the industry and commerce of the world. . . . Were but half of this squandered labour directed into suitable channels it could provide food, clothing and shelter for every impoverished wight among the dwellers in civilized lands.

Perhaps this is mysticism or overstatement, but there is no one who will not, like Rathenau, condemn much of current production and distribution. It may be that we can accept the following definition:²⁰

The concept of an optimum population based on maximum welfare must embrace the concept of an optimum production and consumption. Maximum per capita consumption of goods and services are those which contribute more than any others could contribute to welfare.

There may be a production of goods and services in which there are present items or quantities which make for human "illth" rather than for "wealth."²¹ Or goods and services may be distributed among human beings with less than a maximum of welfare. It is estimated that in the United States in 1929 "about 21 per cent of the families received only 4.5 per cent of the income" and that "0.1 per cent of the families at the top received practically as much as 42 per cent of the families at the bottom of the scale."²² Few will contend that such a distribution of the national income results in a maximum of human welfare.

But a working concept is necessary, even though inexact. "In population studies we are faced with the necessity of comparing, to the best of our ability, the relative degrees of per capita welfare in a community at different times, in so far as the consumption of goods

²⁰ Penrose, E. F., *op. cit.*, p. 79.

²¹ See Hobson, John A., *Work and Wealth*, New York, The Macmillan Company, 1921, especially chap. IX, *Human Utility of Consumption*.

²² Leven, Maurice, Moulton, H. G., and Warburton, C. A., *America's Capacity to Consume*, Washington, The Brookings Institution, 1934, p. 66.

and services is involved in welfare. . . . What is required is a consensus among those who have qualifications for judging the effect on welfare of the consumption of this or that commodity in this or that quantity. In the case of food we require a consensus among biochemists regarding the kinds and amounts of food needed for optimum physiological welfare.”²³

THE SYNTHETIC OPTIMUM

This search for precision in the use of “overpopulation” and “underpopulation” has revealed the difficulty of deciding just when such conditions exist, which in turn means that it is not easy to pass judgments upon policies designed to correct alleged maladjustments. If an absolute (as distinct from a relative) optimum is meant, there is still left to be settled the choice between the economic optimum and the welfare optimum. If an effort is made to decide whether any country is suffering from population pressure rather than from other influences, and if the economic optimum per capita is the test, it is necessary to determine whether the factors of production in that country are being employed in such proportions and in such directions as will give the maximum output per capita. This is no easy task although it may be possible to indicate some of the most serious misapplications of effort. If such an analysis is possible, including, of course, an indication of the changes in distribution that would enlarge production as well as improve consumption, we have the data needed for a judgment. But it must not be forgotten that technology is changing with increasing rapidity. Even though population in a given country is stationary, methods of production (or alterations in demand which divert production to other goods) may and do shift quickly, and these shifts may in turn cause overpopulation to become underpopulation or the reverse.

Importance of a Relative Optimum. Also, this optimum is absolute, not relative. Assume that the numbers in Germany today, with the given natural resources and available capital, are such as to give the maximum income per capita. This income (the economic optimum) may be equal to or above or below the welfare optimum of income (as determined by the consensus of opinion in Germany). It is not apt to be lower, for the reason that human wants are expansible, and it may be assumed that the welfare desired has not been attained. This per capita income may still be less, perhaps far less,

²³ Penrose, E. F., *op. cit.*, p. 75.

than in other areas, for example, that in Australia, or in Canada, or in the United States. Germans may believe that emigration to these higher income regions will make possible a different adjustment of factors in Germany and a higher per capita income there, while the emigrants would enjoy larger incomes in their new locations. Or they may believe that, by the extension of political controls, including the acquisition of colonies, it will be possible to increase the importation into Germany of foodstuffs and raw materials and the exportation from Germany of manufactured products. This latter view may rest on the contention that through such economic relations with the outside world, Germany, with its numerous population, can have a higher economic optimum. Either national self-sufficiency, or expansion, or some combination of these, it may be argued, is made compulsory because outside economic dealings are affected by the attitude of other peoples.

A World Optimum. In Chapter 2 attention was given to population movements from some areas to others. In that connection there was presented the views of those who believe in a different distribution of the world's population and of those who believe that the present distribution is satisfactory. A few words should be added here about the general idea raised: a relative optimum as distinct from an absolute optimum.

What would be a satisfactory population distribution, not as favored by those who merely seek greater political controls for one national group as compared with another, but one that can fairly be called an optimum for the world as a whole? With conditions as they exist at any given time, each of the many countries of the world may have an economic optimum of population. This optimum is due to the employment of its economic resources in the most productive manner but in every case with some international contacts. The various optima may not be at all the same as they would be if these international economic relationships were different. A great development of the self-sufficiency of a country might raise but would probably lower the optimum. A greater freedom in economic transactions between countries would in all probability raise the optimum. It is possible, therefore, to consider the real or potential economic (or welfare) optimum for each country by itself as it is affected by existing relationships with other countries, but also to consider similar optima if some new adjustment of these relationships were to occur.

One noted authority²⁴ has discussed at length the synthetic optimum. Into it he has introduced what seem to him all the relevant factors, although he believes that "the present state of human progress does not yet enable us either to *give the figure* of the realistic optimum size of the population of a country, a region, or the entire globe, or to *calculate* its optimum rate of growth." He does undertake to give "due weight, not only to economic and social viewpoints and to considerations of national defence, but likewise to demographic and eugenic ideas and forecasts."

It is not to be expected that this concept will be very precise. Certainly it is not possible to calculate exact numbers. Even more it is not possible to indicate the relative importance of each factor that should be included. For each country, or state, it involves (1) security and prestige, and (2) social well-being. Its emphasis tends to be on the relative rather than on the absolute. For the world as a whole, the optimum is even more difficult to conceive. Perhaps, as has been suggested, nothing more can be done than to estimate as well as possible an optimum for each country (which is relative), and then combine them into a total. What we should call such a total is hard to say. It may be that we should agree with a Swedish economist who calls the theory of optimum population "one of the most sterile ideas that ever grew out of our science."²⁵

This statement, however, does not or should not lead to the conclusion that there are no regions where the people with the natural resources and capital at their disposal are producing as much as could be produced under other conditions. In many areas the "proportion of factors" is inappropriate, the number of people engaged in their present occupations, agriculture, for instance, being unduly large for the agricultural resources and for their markets. A reduction in numbers through a decline in the birth rate or through emigration, would alter the relationship. But an increase of capital equipment in the form of agricultural fertilizers, tools, and machines and the use of modern techniques, also would change the "proportion of factors" and increase the output in the aggregate and per capita. To this must be added the reminder that an enlarged quantum of output can give a greater income only if it can be marketed. As physical production increases, fewer workers will be needed on

²⁴ Imre, Ferenczi, *op. cit.*

²⁵ Myrdal, Gunnar, *Population: A Problem for Democracy*, Cambridge, Harvard University Press, 1940, p. 26.

the farms and more may be employed in secondary and tertiary occupations. This has been the trend of development in those parts of the world where per capita incomes have reached the highest levels.

One region that may be used as an example is southeastern Europe, though there are many others. One estimate of "agricultural overpopulation" in 1937 for Czechoslovakia, Hungary, Poland, Greece, Yugoslavia, Rumania, and Bulgaria is from 15,450,000 to 15,950,000.²⁶ National incomes per capita at about the same date expressed in United States dollars ranged from \$55 to \$65 in Bulgaria and Yugoslavia, to \$150 to \$160 in Czechoslovakia. With emigration difficult or impossible and with birth rates in general still so high as to make probable a large increase in numbers, an advance in incomes may be secured only by better agricultural methods and by the development of industry. This in turn calls for larger supplies of capital, which are not easily secured by domestic saving where incomes are so low, and suggests external borrowing. Larger incomes are possible but the process of attaining them is slow and beset with difficulties.

Attention may again be drawn to the "law of proportion of factors." In no area is the proportion needed for maximum productivity ever exact and there are continuous and bewildering shifts as internal and external economic relations change. In some regions the combination is clearly and persistently not the best and in many of them population is the one that is overabundant. In order to secure the "optimum," there are three requisites: industrialization, urbanization, and a lower birth rate.

These are interrelated. Industrialization involves some concentration, that is, urbanization. Higher incomes tend to accompany industrialization but expenses also advance rapidly. The possibility of a higher level of living under urban conditions seems to encourage birth control. Yet the advance of science will probably mean that the death rate will fall more rapidly than the birth rate. This means a continuing "natural increase" in total numbers for many years and this increase will tend to retard any advance in per capita incomes. This will, in turn, check the tendency toward lowered birth rates. It is clear that such processes are slow and that the various influences are closely related. Changes that took many years in

²⁶ *Economic Development of S. E. Europe*, P.E.P. (Political and Economic Planning), London, Oxford University Press, 1945, p. 39.

other parts of the world may occur more rapidly in such areas as Asia, but there is no magic way by which an "optimum" population can be realized in a short period of time. The aggregate of "natural resources" is so large and technical knowledge is so great that higher per capita incomes have been realized in many countries and still higher ones can be attained. Excessive optimism regarding the rapidity by which such goals can be reached is, however, not warranted.

SELECTED REFERENCES

Ashley-Montague, M. F.: *Man's Most Dangerous Myth: The Fallacy of Race*. New York: Columbia University Press, 1942.

Benedict, Ruth: *Race: Science and Politics*. New York: The Viking Press, 1940.

Dahlberg, Gunnar: *Race, Reason & Rubbish*. New York: Columbia University Press, 1942.

Fabricant, Solomon: *Labor Savings in American Industry 1899-1939*. New York: National Bureau of Economic Research, Occasional Paper 23, November, 1945.

Ferenczi, Imre: *The Synthetic Optimum of Population* (International Institute of Intellectual Co-operation). Paris: The League of Nations, 1938.

Nourse, Edwin G., and associates: *America's Capacity to Produce*. Washington: The Brookings Institution, 1934.

Penrose, E. F.: *Population Theories and Their Application*. Stanford University, Calif.: Food Research Institute, 1934.

Warriner, Doreen: *The Economics of Peasant Farming*. London and New York: Oxford University Press, 1939, chap. III.

Wright, F. C.: *Population and Peace*, vol. 2 of *Peaceful Change*. New York: Columbia University Press, 1938-39.

PART FOUR

INTERNATIONAL AND INTERREGIONAL
ACCOUNTS

CHAPTER 13

THE BALANCE OF INTERNATIONAL PAYMENTS

In preceding chapters no more data than was necessary have been presented by countries or nations. As fully as possible we have talked of regions or large areas of the world. Frequently, however, statistics have been given for particular countries or for groups of countries.

For this there have been two reasons. One is that most available information is collected by national governments for their respective countries. The explanation, as will be elaborated more fully later on, is that the size of the task and its complexities are such that probably no private agencies can well undertake it. The other reason is the growth of autarchy or national self-sufficiency. For better or for worse, each nation has emphasized the unity or, to some extent, the isolation of its own economy. Hence, for many purposes, national statistics are the most important.

There are both advantages and disadvantages in this reliance upon data gathered on a national basis. To the extent that each country is a separate economy we shall have the basis for a discussion of the economic issues with which governments and peoples must deal. On the other hand, there is the disadvantage that attempts to lessen economic strains should often take into account the relations to each other of geographical areas that are not now delimited by national frontiers. A few attempts have been made to analyze such economic regions and two of them will be discussed, but for the most part the treatment must be by countries. In spite of its drawbacks, this presentation will permit the consideration of some matters that have their application also to relations between regions.

FINANCIAL STATEMENTS

Every year the United States Department of Commerce publishes a pamphlet with the title *The Balance of International Payments of the United States*, each issue being an analysis for the preceding calendar year. This report is a detailed presentation of the economic

relations of the United States with the rest of the world for a twelve-month period. Other countries present similar studies but that for the United States is among the best and is, in fact, quite generally conceded to be the most comprehensive and the most enlightening.

Why Prepare Such a Statement? There are many purposes to be served by such a statement. Perhaps the general idea can be made clear by a comparison with the accounts that might be kept by each of us as an individual. In these days, when taxes are very heavy and each of us must furnish detailed information to the Department of Internal Revenue on his "Income Tax Return" and perhaps also to state and local government officials for similar purposes, the need for careful records of income and expenditures, including capital gains and losses, is evident. In addition to this demand from public officials, there is also the advantage to each individual in knowing as precisely as possible the facts about his financial condition.

Corporations have even more reason to keep careful accounts. In addition to the demands for reports to federal, state, and local governments, their creditors (bondholders, noteholders, and banks) are entitled to accurate information frequently presented, and stockholders, who are the legal owners, may properly call for data about the corporation. This demand must be met even in these days when stockholders often have so little to say because of the frequent separation between ownership and management.¹ That such financial statements are difficult to prepare and to interpret, or that they may in some cases be deliberately misleading, does not mean that they are without value. Instead, it emphasizes the need for more and more efforts at accuracy and for close supervision where supervision is needed. The numerous ramifications of corporate activities and the concentration of property control which has been made possible by the corporate form of organization are compelling reasons for this conclusion.

The Balance Sheet. In this volume the corporation is referred to only as an illustration. It presents its finances in two forms. One is a balance sheet. This lists its assets in one column and its liabilities in another. Among the assets are physical properties, accounts and notes receivable, securities owned, cash in bank, and many other items, the length of the list depending upon the nature of the corporation's activities and the number of details given. Similar items

¹ See Berle, Jr., Adolf A., and Means, Gardiner C., *The Modern Corporation and Private Property*, New York, Commerce Clearing House, 1932.

are listed in the liabilities column. This balance sheet pictures the condition of the corporation at a given instant of time, e.g., at the close of business on December 31. If there is an excess of assets over liabilities to outsiders, it is given in the items in the liability column and designated as capital, surplus, and perhaps undivided profits. If the assets are the smaller, there is an item indicating this fact entered on the assets side. Thus the balance sheet always balances.

The Income Account. The other financial statement is the income account, or the profit and loss account. Whereas the balance sheet shows the assets and liabilities at a given instant, the income account records the receipts and expenditures during a period of time, usually a year. Receipts come from a variety of sources, and expenditures are for many purposes, but there are the two main groups. Some receipts come from ordinary sales of commodities or services and are paid out in the ordinary operations of the business for raw materials or as wages, interest, taxes, and so forth. Some, however, are for permanent use and are secured, for example, by the sale of stocks or bonds, that is, they are for capital purposes. Likewise, some outlays may be used to retire bonds or to lessen the amount of stock outstanding, thus reducing the size of the capital structure. It is important that this second type of receipts and expenditures be kept distinct. Taken together, the balance sheet and the profit and loss account give a clear picture of the condition of an enterprise. That they are difficult to prepare with accuracy and to present in a form that is clear to the layman is well known to business men and to all others who have given any thought to the subject.

Governments similarly need to enlighten the public regarding their financial condition. It would be helpful if they, too, would furnish complete but simple statements, including both the balance sheet and the income account. Usually, however, only the latter is presented.

Often it would be helpful to have corresponding statements for geographical areas within a country. For example, residents of certain of the eastern states of the United States often complain that they pay higher federal taxes per person or per square mile than do those residing in the West or the South. The fairness of this could be better determined if there were accurate financial statements for these regions, showing the assets and liabilities of each in relation to the others and the amount and direction of the flow of current income between the regions.

THE BALANCE OF INTERNATIONAL PAYMENTS

There are numerous reasons for attempting to prepare similar financial statements for countries and, if possible, for larger areas, perhaps including many countries. In the past these attempts have been made for many purposes. In the sixteenth and seventeenth centuries interest in foreign trade was a cause; and after the Napoleonic Wars currency difficulties in Great Britain and, at the end of the nineteenth century, similar troubles in the United States led to special interest in economic relations with other countries. Since the First World War the need for such statements has grown and the number of uses for them has multiplied.²

A complete statement of accounts for a country, as for an individual or for a corporation, should have two parts: (1) a balance sheet listing assets and liabilities, such balance sheets being presented at frequent intervals, say at the end of each calendar year, and (2) an income or profit and loss statement for each year.

A National Balance Sheet. A balance sheet would include the aggregate assets and liabilities of all individuals, corporations, and public bodies, with care to avoid any double counting. There would be listed all real property and all personal property, each item expressed in monetary terms. There would be included claims of all sorts against parties outside the country and the liabilities to outsiders. Even this brief reference to what is involved is enough to indicate the size of the task involved. Some items are easily ascertained and their monetary worth is not difficult to express. Others are exceedingly hard to locate and it is even harder to place a monetary value upon them. Students of transportation will readily appreciate this. In the light of the decision of the Supreme Court of the United States in *Smyth vs. Ames*, an attempt was made through many years to "value" the properties of the railroads of the United States engaged in interstate transportation. This was done in an effort to secure a "rate base" upon which the railroads were to be allowed, if possible, to earn a "fair rate of return." There are few, if any, who would contend that the effort was an unqualified success.

A National Income Account. More success has been attained in estimating the national income. Here and there in this volume some of the attempts are mentioned. The experts who present these find-

² For a discussion of the purposes of such statements, see Lewis, Cleona, *The International Accounts*, Washington, The Brookings Institution, 1927, especially chaps. II and III.

ings are constantly refining and improving their methods, but they very properly warn us that their results are subject to a certain amount of error which is quite small in such countries as the United Kingdom and the United States, but much greater in many other countries.

The national income is a statement of the value of the flow of commodities and services within the country through a period of time — usually a year. It is considered either from the productive side, in which case it is called “income produced,” or from the distributive side, when it is known as “income paid out.” These two approaches give slightly different results.

The Balance of International Payments. What is known as the “balance of international payments” does not make any attempt to present, even for the country for which it is prepared, for example, the United States, a statement of the assets and liabilities of the country or of its income and expenditures. It is limited to a presentation of those assets and liabilities and those receipts and expenditures which are related to the world outside its own borders. As in the case of private accounts, it is easier to collect accurate data for the “income and outgo” account than for the assets and liabilities. This is true even though the two are quite closely related and definitely depend upon each other.

The Balance of Payments of the United Kingdom. Some of the complexities involved are illustrated by the calculations for the United Kingdom. These are prepared by the Board of Trade (which corresponds in a general way to the Department of Commerce of the United States) and are made public in the *Board of Trade Journal*. The statement in Table 28 is for two years only. The statement given is in a condensed form and further details are available in the *Board of Trade Journal* of February 23, 1939, and in the League of Nations publication from which the table has been copied. The latter source has very slightly modified the form of presentation, mainly by including the gold movements.

Notice first that the items are given under six headings. Item 1 gives the excess of merchandise imports including silver coin and bullion over the exports. There was an excess of such imports amounting to £381,000,000 in 1929 and to £377,000,000 in 1938. In the interval there had been ups and downs, the estimate being at a high of £442,000,000 for 1937 after a low of £261,000,000 for 1935. Merchandise movements are known as “visible” items for the

TABLE 28

BALANCES OF INCOME AND EXPENDITURE IN THE TRANSACTIONS
(OTHER THAN LENDING AND REPAYMENT OF CAPITAL) BETWEEN
THE UNITED KINGDOM AND ALL OTHER COUNTRIES

(In millions of pounds sterling)

<i>Particulars</i>	<i>1929</i>	<i>1938</i>
1. Excess of imports of merchandise, including silver coin and bullion	381	377
2. Estimated excess of government receipts from overseas overpayments made overseas*	24	- 13
3. Estimated net national shipping income †	130	100
4. Estimated net income from oversea investments	250	200
5. Estimated net receipts from commissions, insurance, etc.	65	35
6. Estimated net receipts from other sources	<u>15</u>	<u>—</u>
Total, items 2-6	484	322
Estimated credit (+) or debit (-) balance on account of goods, services, and government capital transactions	+ 103	- 55
Excess of exports (+) or imports (-) of gold	+ 15	+ 63
Estimated credit (+) or debit (-) balance on all items specified above	+ 118	+ 8

SOURCE: *Balances of Payments, 1938*, Geneva, The League of Nations, 1939, p. 125.

* These include some items on loan accounts. Minus signs indicate net payments made overseas.

† Including disbursements of foreign ships in British ports.

obvious reason that they are visible as compared with certain other transactions which are highly important but are harder to ascertain or to estimate and hence are called "invisible" items. There are many of these but they have been grouped in this statement under four specific headings (items 2-5) with a sixth for "other sources." The invisible receipts (net) were £484,000,000 in 1929 and £322,000,000 in 1938. The United Kingdom had during 1929 accumulated claims on the rest of the world for £103,000,000 more than the rest of the world had on the United Kingdom. In addition, £15,100,000 of gold was exported, bringing the total to £118,000,000. In 1938, when the invisible receipts were only £322,000,000 net, there was a deficit of £55,000,000, which was only a little more than offset by a gold export of £63,000,000, resulting in a total credit balance of £8,000,000.

SOME MATTERS OF TERMINOLOGY

Economics and the other social sciences are greatly hampered by difficulties with terminology. The natural sciences have to a considerable degree met the problem by the use of Latin and Greek, or

by specially coined words and phrases. The social sciences have not done this and a large amount of confusion results, some of it between the scientists and the laymen and some at times even among the scientists themselves. Consequently several explanations of terms are here in order.

Debit and Credit Items. "Debit" and "credit" are accounting terms and at times are very confusing. We shall be unable to avoid them but shall at times speak of receipts in referring to transactions which entitle the country in question to receive a payment in some form from abroad, and of expenditures when the reverse is true. Even this may be annoying since, for example, exported merchandise is not received by the country but sent out of it. Nevertheless, this shipment to abroad entitles someone in the exporting country to receive a payment. We shall merely have to exercise as much care as possible and ask readers to do the same.

Government Accounts and National Accounts. We are here dealing with the latter, of which government accounts may be a part although they are often entirely unrelated. Ordinarily the two are not confused but at times they are. A government may be very heavily indebted to owners of its bonds or notes, but all of these bondholders and noteholders may be nationals of the country and resident therein. At the same time the people of the country may be the owners (net) of a large volume of bonds, mortgages, and so forth, issued against properties abroad. The country is in this instance a creditor in spite of the fact or with no relation to the fact that its government is heavily in debt. Similarly the government has its own receipts from taxes and other sources and its own expenditures which may have little or no relation to payments to abroad and receipts from abroad. Some of the government receipts and payments may enter into the national accounts as, for example, when a government has claims on private or public bodies abroad, reparation claims, for instance, or is indebted to foreign holders of its obligations.

Balance of Trade and Balance of Payments. A glance at the balance of payments of the United Kingdom given in Table 28 has shown that there was an excess of imports of merchandise in 1929 amounting to £381,000,000. The United Kingdom has had such an excess of varying size for many years and a wrong interpretation of this fact has often caused serious misunderstandings. About these misunderstandings more will be said later, but notice now the last

item headed "Estimated credit or debit balance. . . ." In each of the two years given, there is an excess of credits (£118,000,000 in 1929 and £8,000,000 in 1938). The United Kingdom had an excess of "debits" or "expenditures" on merchandise or "visible" trade, which was more than offset by an excess of "credits" or "receipts" on the other or "invisible" items.

This suggests that a distinction should be drawn between the two items. It is done by referring to transactions in merchandise or visible items as "trade," and by calling an excess in one direction or the other the "trade balance" or the "balance of trade" and the more comprehensive listing as the "balance of payments."

"Favorable" and "Unfavorable" Balances. Another expression that is misunderstood is "favorable balance of trade" (or payments). The word "favorable" has regularly been employed in speaking of an excess of exports and "unfavorable" in speaking of an excess of imports. These words immediately suggest that an excess of exports is for some reason always desirable and should, if possible, be secured and that an excess of imports always is objectionable and should be avoided.

This is incorrect — so much so that the League of Nations has recommended the abandonment of the two words. Look again at the United Kingdom statement. Why should it be considered "unfavorable" for the British to have an excess of merchandise imports, if they are able to pay for them or more than pay for them with various "invisible" transactions? In the two years given, there was a balance left over when both groups are included and presumably this amount was used to increase the foreign investments of the British. Whether this was "favorable" for the British or for anybody else is to be answered only after an analysis of many factors. Certainly the words "favorable" and "unfavorable" should not be used.

Does a Balance of Payments Balance? Attention has already been called to the fact that the balance sheet of a corporation always balances. If the assets listed are larger than the liabilities, a balancing item of some kind is inserted on the liabilities side. If the liabilities are larger, an entry is made on the assets side (perhaps in red ink) and again we have the two sides equal. Thus the balance sheet always balances. If an income or profit and loss account is prepared with a list of receipts in one column and of expenditures in another, the two can always be made equal by inserting a balancing item on one side or the other as may be necessary.

In a similar way a balance sheet or an income account for an entire country in its relations with the outside world may be made to balance. If during a given year the "receipts," that is, the commodities and services delivered to outsiders, is larger than the "expenditures," there should be an item to indicate this difference. Some sales may have been made that have not been paid for, and somewhere there is presumably a record of that fact which should be included perhaps as "notes receivable" or "accounts receivable" or as short-term capital transactions or in some other manner. In this sense, but only in this sense, can we refer to the income account as balanced. Similarly, the balance sheet always balances.

THE BALANCE OF PAYMENTS OF THE
UNITED KINGDOM (*continued*)

The next step is to indicate what a balance of international payments is and is not. Look again at the one for the United Kingdom as given in Table 28. It is not a listing of assets and of liabilities at a given point in time but an enumeration of receipts and expenditures through a period of time — one year for each column. It is accordingly not a balance sheet but an income account. During any year for which it is presented, it gives income and outgo. For each year there is an excess which is referred to as a credit or a debit balance. This balance, which was a credit of £118,000,000 in 1929 and of £8,000,000 in 1938, could presumably be explained if adequate information were available. Thus, during the year securities were bought and sold in the United Kingdom, there were probably "direct investments" (to be explained later) in both directions, and many commodities were received or delivered for which payments had not been completed.

A national balance sheet is not given and, in fact, is not compiled by the British Government. From time to time private estimates have been made, notably in recent years by Sir Robert Kindersley. These have been published in the *Economic Journal* (London).

Some Defects in the Statement. There have been many criticisms of the United Kingdom balance of payments. Without undertaking to appraise these criticisms, a few may be mentioned with the purpose of indicating some of the difficulties. A survey of the published figures for a period of years, that is, 1929–1938, reveals several striking features. One is that several items are given in round numbers. Thus, the net national shipping income is £130,000,000 in 1929

and £100,000,000 in 1938. If exact data were available, no such "round numbers" as these would appear. Another feature is the repetition of the same figures year after year. Estimated net receipts from commissions, insurance, and so forth, were £30,000,000 in 1931, 1933, 1934, and 1935, while estimated net receipts from other sources were £15,000,000 in 1929, 1930, and 1932, and £10,000,000 in six other years. The use of round numbers and the repetition of the same estimates are a reminder that the figures given are only an approximation.

A second defect is that the statement is only an estimated income account for the United Kingdom and is not accompanied by a balance sheet. This sets sharp limitations upon its usefulness which are merely reduced, but not removed, by the private estimates presented by Sir Robert Kindersley and others. It is helpful to know, for example, that the estimated "credit balance" in 1929 was £118,000,000, but students and statesmen would like to know how much nationals of the United Kingdom have invested abroad and how large are the corresponding claims of foreigners on the United Kingdom. Also, it is very important to know whether such a credit balance as the one shown for 1929 is to be explained by a growth in the holdings of stocks and bonds, in direct investments, or in bank balances. Only as these and many other facts are known is a clear judgment possible. This was forcibly emphasized for the British in the spring of 1931 when the reports of several special commissions revealed a very precarious condition in the field of government finance which was greatly complicated by the short-term obligations of British banks to outside sources and the unavailability of funds loaned to Germans, nominally on short time but actually for purposes many of which were long time in nature.

STANDARD FORM PROPOSED BY THE LEAGUE OF NATIONS

Only the balance of payments of the United Kingdom has been used as an illustration. It has been presented because of the importance of the United Kingdom and because its form has permitted us to point out some of the difficulties in securing data and a few of the limitations there are in making use of what is furnished. Of course, the reports as published give more detail than it has been convenient to present here, but the general comments made seem entirely fair.

The United Kingdom statement is, relatively speaking, satisfac-

tory in spite of its defects. In the latest collection of such statements published by the League of Nations,³ twenty-seven of varying completeness are included. It is so important to have carefully prepared statements on a comparable basis that the League of Nations compiled a standard form to be used.⁴ It calls for many details grouped under these headings:

- Goods, services, and gold
 - Merchandise
 - Interest and dividends
 - Other services
 - Gold
- Capital items
 - Long-term operations
 - Short-term operations

It will at once be noticed from this summary that there is no provision for a balance sheet statement. There is merely a request for details regarding annual receipts and expenditures but with a separation of the items into "Goods, services, and gold" (chargeable to income) and "Capital items" (chargeable to capital). To the extent that these are accurately compiled they show changes that call for adjustments of the balance sheet at the end of the year; but there is no request for a balance sheet.

In the next chapter attention will be given to the balance of international payments of the United States which is prepared more in detail than that for any other country. In the same chapter there will be included a description of two regional statements. There should perhaps be added at this point that the League of Nations' Economic Intelligence Service can do no more than present data furnished to it by the different governments; it has pointed out that there is a wide variation in the completeness and accuracy of the data furnished, adding that "the figures supplied must be accepted with reserve and any conclusions drawn must be treated as tentative."

³ *Balances of Payments, 1938*, Geneva, The League of Nations, 1939.

⁴ *Ibid.*, pp. 8-9.

CHAPTER 14

BALANCE OF PAYMENTS OF THE UNITED STATES, OF EUROPE, AND OF LATIN AMERICA

In the preceding chapter it has been shown that a clear statement of the financial position of any country or region is not easy to secure. Both balance sheet and income account are needed. The former is so difficult to compile that in many cases it is not attempted and in other cases only irregularly. The income account is also troublesome. Books are not kept as they are by corporations and by many individuals, and so much estimating must be done. The results are subject to varying degrees of error. Accountants are continually pointing out to us that the preparation of corporate statements calls for (1) a decision on many difficult but basic theoretical questions, and (2) the exercise of judgment on many specific matters such as the method of valuing inventories, the allowance to be made for obsolescence, and numerous others. In preparing a national balance of payments, the obstacles and uncertainties are far greater.

Yet it would be an error to conclude that such efforts are not worth while. Imperfect as the results may be, much can be learned. Those who use the material should do so, however, with a full realization of its limitations.

BALANCE OF PAYMENTS OF THE UNITED STATES

With this reminder we may examine the balance of payments of the United States as prepared by the Department of Commerce. As previously pointed out, it is probably the most elaborate and most carefully worked out statement of its kind. It has been published for many years and is constantly being improved. The annual compilation appears as a booklet, the one for 1940 containing ninety-three pages of tables and of discussion.¹ Any reader of this annual study will be impressed with the amount of time and care involved

¹ United States Department of Commerce, *The Balance of International Payments*; for sale by the Superintendent of Documents, Washington, D. C., price 20 cents.

TABLE 29
BALANCE OF INTERNATIONAL PAYMENTS OF THE UNITED STATES,
1938-39
(In millions of dollars)

Item	1938 (revised)			1939		
	Receipts from foreigners for "exports" (credits)	Payments to foreigners for "imports" (debits)	Net credits (+) or debits (-)	Receipts from foreigners for "exports" (credits)	Payments to foreigners for "imports" (debits)	Net credits (+) or debits (-)
Trade and service items:						
Merchandise	3,094	1,960	+ 1,134	3,177	2,318	+ 859
Merchandise adjustments*	61	43	+ 18	64	44	+ 20
Freight and shipping	118	164	- 46	125	249	- 124
Travel expenditures	166	532	- 366	170	469	- 299
Personal remittances	40	152	- 112	45	144	- 99
Institutional contributions	—	38	- 38	—	43	- 43
Interest and dividends	549	196	+ 353	531	211	+ 320
Government transactions†	34	98	- 64	32	96	- 64
Miscellaneous services	189	67	+ 122	147	59	+ 88
Total trade and service items	4,251	3,250	+ 1,001	4,291	3,633	+ 658
Gold and silver:						
Gold exports and imports	6	1,979	- 1,973	1	3,575	- 3,574
Gold earmarking operations (net)	—	—	+ 333	—	—	+ 534
Gold movements (net)	—	—	- 1,640	—	—	- 3,040
Silver exports and imports	7	231	- 224	14	85	- 71
Total gold and silver movements (net)	—	—	- 1,864	—	—	- 3,111
Capital items: ‡						
Long-term capital movements §	1,724	1,701	+ 23	1,624	1,510	+ 114
Movement of short-term banking funds (net)¶	—	—	+ 295	—	—	+ 1,116
Miscellaneous capital items (net)	—	—	- 3	—	—	+ 69
Paper currency movements (net)	—	—	+ 16	—	—	+ 117
Total capital items (net)	—	—	+ 331	—	—	+ 1,416
Other transactions and residual	—	—	+ 532	—	—	+ 1,037

* The item consists roughly of three parts: (1) Commodity exports and imports which are omitted entirely from the official trade figures (that is, bunker-fuel purchases and sales); (2) exports or imports which are partly omitted from official trade data (that is, goods smuggled into the country); (3) corrections of certain recorded trade figures for balance-of-payments purposes (that is, allowances for bad-debt losses).

† Including receipts on account of intergovernmental debts.

‡ Capital items are viewed as "exports" and "imports" of evidences of indebtedness.

§ The item covers the movement of funds in security transactions as reported by the Treasury Department (net inflow of \$76,000,000 in 1938 and net outflow of \$2,000,000 in 1939) and other transactions, the more important of which affected direct investments.

¶ The item covers the net movement of capital in short-term banking funds and in brokerage balances as reported by the Treasury Department (\$293,000,000 in 1938 and \$1,116,000,000 in 1939) and the net change in Philippine Government accounts with the United States Treasury.

in its preparation and with the caution shown in not claiming too much for its detailed accuracy.

It is recommended that these studies be examined in detail; presented here (as Table 29) is only the summarized statement as given in the report for 1939 and issued in June, 1940. The choice is made because the year involved is nearly the same as that of the statement for the United Kingdom presented in the preceding chapter. Moreover, although it shows the effects of the war starting in September of that year, those effects were not so great as in later years.

Divisions of the Statement. There are four main groups of data: (1) trade and service items; (2) gold and silver; (3) capital items; and (4) other transactions and residual. The first group includes both visible and invisible items, the visible being merchandise and merchandise adjustments. Perhaps the "adjustments," which include bunker-fuel purchases and sales, estimates of the value of smuggled goods, allowances for bad-debt losses, and similar items should be considered invisible. The others are service items and are clearly of the invisible sort. As is usual for the United States, merchandise exports are in excess of imports and there is a net credit of \$1,134,000,000 for 1938 and of \$859,000,000 for 1939. The net figures for service items are mixed, some being credit and others debit. In each of the two years nationals of the United States paid more freight and shipping charges to foreigners than was paid by foreigners, and expenditures by tourists from the United States traveling abroad were greater than those by foreigners visiting in the United States. The result for "trade and service" combined was an excess of credit over debit items amounting to \$1,001,000,000 in 1938 and \$658,000,000 in 1939.

The second group, "gold and silver," shows large imports of both metals in both years, the imports (net) of gold amounting to \$3,040,000,000 in 1939. This heavy importation of gold will be discussed a little later in this chapter and from time to time in other parts of the volume. At present, we may notice only that "trade and service" items and "gold and silver" may be grouped together as "income" transactions, distinguishing them from the "capital items" which follow.

Capital items are transactions which increase or decrease the amount invested by foreigners in the United States or by nationals of the United States in foreign countries. They are long-term, short-term, and miscellaneous, and there is included under this same

heading paper currency movements. It is not clear that this last item is really a capital movement but we need not undertake to argue the matter, merely accepting the classification as it stands. The balance under capital items is a credit for each of the years given, amounting to \$331,000,000 in 1938 and \$1,416,000,000 in 1939. There was thus a considerable change recorded in our foreign investment position. Either there was a reduction in the investment of United States nationals abroad, or an increase in their indebtedness to abroad, or a mixture of the two situations. The condensed statement as we have given it does not make the point clear, although later pages of the report go into considerable detail and reveal the transactions to be of both sorts or a mixture.

"Other transactions and residual" is a large item, amounting to \$1,037,000,000 in 1939. This evidences the difficulties that are faced in compiling such a statement. While every effort is made to secure complete information, there are many "errors and omissions" and numerous estimates are necessary. If there were no such difference, it would be merely because the errors and omissions on one side, the debits, for instance, chanced to equal those on the credit side. That the amount was so large in 1939 is attributable to the hectic international situation in that year, with many transactions especially difficult to trace.

Several features of this statement for the United States are outstanding. It should be said at the outset, however, that some of them reflect temporary conditions which may not be expected to continue indefinitely. Instead, they may be reversed. Then, too, all of them are apt to be altered over any extended period of time since we live in a world where change is constant. Finally, it should not be concluded that the balance of payments of all countries will show the same sort of relationship to the rest of the world as does that of the United States.

An Excess of Merchandise Exports. In both 1938 and 1939, the value of merchandise exported was greater than that of the merchandise imported. A warning has already been given that although such an excess is often called "favorable," the use of this adjective is unwise. This excess has been usual in varying amounts for many years, in fact, during most of the time since about 1873, while before that date an excess of imports was more common. What the future may bring we need not for the moment inquire.

An export of merchandise suggests at once a double dependence.

Certain foreign people are dependent for the commodities they buy on the United States, while producers of these articles in the United States rely upon these same foreigners for their markets. How great this double dependence is may be indicated in several ways. One is to notice the percentage which these exports bear to the total national income of the importing or of the exporting country. Somewhat similar in its significance is the percentage relationship of this trade to the combined domestic and foreign trade of the country concerned. By this test the dependence of the United States does not seem very great. A calculation is not simple but those who have made an attempt tell us that it is only about 5 or, at the most, 10 per cent.

It is hasty to conclude that this apparently small amount is unimportant. We shall later say something of the significance of even a 5 per cent gain or loss in markets, especially to an enterprise that must regularly meet heavy outlays known as "overhead." Even more impressive, however, is the fact that the percentage of total product exported by particular enterprisers is far more than this seemingly low average. For example, during many years the United States exported from 50 to 60 per cent of its total production of raw cotton. From the standpoint of the importing country this item may be very significant. It may, of course, be true that the total imports of such a country are a higher percentage of its total trade than United States exports are to United States total trade. Or it may be that a foreign country relies upon the United States for a large part of its supplies of some highly important item. This mutual dependence may be very considerable and can be determined only by a careful analysis of the facts in each instance rather than by a glance at an average like the 5 or the 10 per cent just mentioned.

Also, this mutual dependence upon exports from the United States is not between that country and one or two others but is widespread. By continents, the merchandise exports and imports of the United States in 1939 were:

	<i>Exports</i>	<i>Imports</i>	<i>Balance</i> (+) or (-)
North America	\$ 806,600,000	\$580,900,000	+ \$225,700,000
South America	329,400,000	317,300,000	+ 12,100,000
Europe	1,286,000,000	617,300,000	+ 668,700,000
Asia	560,800,000	699,400,000	- 138,600,000
Oceania	79,500,000	26,700,000	+ 52,800,000
Africa	115,100,000	76,600,000	+ 38,500,000
Total	<u>\$3,177,400,000</u>	<u>\$2,318,200,000</u>	<u>+ \$859,200,000</u>

By continents in order of size, the exports were to Europe, North America, Asia, South America, Africa, and Oceania. A breakdown by countries would make still more vivid the very wide mutual interdependence, and by commodities still more so, since trade is in particular commodities and a given industry, cotton manufacturing in Lancashire, for example, is entirely dependent upon imports of its basic raw material, cotton.

Our concern here is (1) to indicate this mutual dependence, and (2) to point out that the United States exporters of this merchandise expect to be paid for it. A seller in the United States wants cash, usually at once. Techniques will be mentioned later. At this point we shall merely observe that to a considerable extent his payment is dependent upon imports into the United States.

Merchandise Imports. It has been noticed that exports from the United States are greater than imports into the United States. But this is merely trade or merchandise or visible items. The merchandise imports in order of size by continents were from Asia, Europe, North America, South America, Africa, and Oceania. The dependence is widespread and great and would be revealed as even greater if individual countries or commodities were named. For the moment we merely point to the fact that the export trade in 1939 exceeded the import trade by \$859,200,000.

But this is "trade" only and does not include the invisibles. They may be noted by referring again to Table 29. Even after they are combined with the trade figures, there is an excess of trade and service credits over the corresponding debits amounting to \$658,000,000. Inclusion of service items or invisibles lowered the balance by only \$201,000,000.

Gold and Silver and Capital Items. There was still this amount of \$201,000,000 to be cared for in some other way, and we pass to "gold and silver." In 1939, the imports of these two exceeded the exports by \$3,111,000,000, which at once changes the situation, giving us an excess of debits amounting to \$2,453,000,000. This balance due to foreigners was met in part by an alteration in long-term and short-term investments. Foreigners bought \$1,624,000,000 and sold \$1,510,000,000 of stocks, bonds, and other evidences of long-term indebtedness, the net change being \$114,000,000.

But the movement of short-term banking funds was nearly ten times that of the long-term items, amounting to \$1,116,000,000 (net). This credit item arose in large part from the unsettled political and

business situation abroad during the year. Many who feared losses it they kept their funds in the danger zones bought drafts on United States banks and thus accumulated balances which they kept idle or invested on short-term rather than long-term. On the debit side,

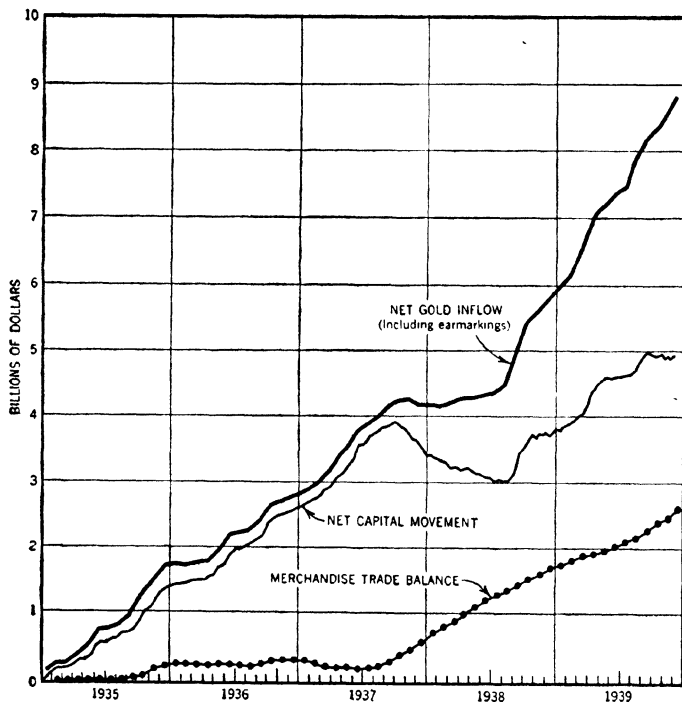


FIGURE 22. Cumulative net movements of gold and of capital funds into the United States from foreign countries and cumulative excess of merchandise exports from the United States, 1935-39. (From *The Balance of International Payments* (in 1939), United States Department of Commerce, 1940)

The "earmarkings" referred to are imports of gold into the United States which still are the property of foreign central banks. They have been physically imported but are held in special vaults of the Federal Reserve Bank of New York against receipts. Unless and until they are withdrawn from "earmark," they are not to be thought of as imports.

there is the heavy importation of gold already referred to. While it is often a mistake to point to any one debit item as related to some one credit item, one may in this case properly think of these two — short-term capital exports and gold imports — as connected. At the same time, it should be noticed that the gold imports are the larger

of the two. In fact, they are still much larger even if all the capital exports amounting to \$1,416,000,000 are included in the comparison.

Figure 22 pictures vividly three items for the five-year period 1935-39. The movements shown are cumulative. Again it may be said that particular items on one side of the account are not ordinarily to be matched against particular items on the other side. But in this case there is enough of a relationship to warrant observing that the combination of capital movements (net) and the merchandise trade balance — both credit items — corresponds roughly to the net gold inflow.

Debtor-Creditor Position of the United States. The preceding discussion has been of the income account — a statement of receipts and expenditures through a designated year. A complete statement of the economic position of the United States toward the rest of the world makes a balance sheet necessary. From what has been said, a few, but only a few, facts can be inferred about the debtor-creditor relationship by noting "interest and dividend payments" and "government transactions." During 1939 the "credits" under the first of these headings amounted to \$531,000,000 and the "debits" to \$211,000,000, the net credit being \$320,000,000. But this tells us very little and the Department of Commerce undertakes in its report² to give a summary of investments by the United States nationals and government abroad and corresponding investments by foreigners in the United States. For the end of 1939 and of September, 1944, these estimates were:

United States investments in foreign countries:

	<i>December, 1939</i>	<i>September, 1944</i>
Long-term	\$10,770,000,000	\$10,600,000,000
Short-term	595,000,000	500,000,000
Total	<u>\$11,365,000,000</u>	<u>\$11,100,000,000</u>

Foreign investments in the United States:

Long-term	\$ 6,247,000,000	\$ 6,200,000,000
Short-term	3,215,000,000	6,100,000,000
Total	<u>\$ 9,462,000,000</u>	<u>\$12,300,000,000</u>

Net creditor (+) or debtor (-) position of the United States

(+)
(+) \$1,903,000,000 (-) \$1,200,000,000

These estimates do not include two items which should be mentioned. One is \$40,737,000 (as of March 31, 1940) of German stand-

² *The Balance of International Payments* (in 1939), *op. cit.*, p. 26, and *Foreign Commerce Weekly*, January 27, 1945.

still credits. These are balances held by American banks in Germany which were being slowly reduced up to the time of the declaration of war by Germany against the United States. The second is the amount due to the Government of the United States from a number of foreign governments. These debts were contracted during and shortly after the First World War and are commonly referred to as war debts or political debts. There have been payments on account of both interest and principal, but the Secretary of the Treasury of the United States in his report for 1941, after deduction of payments on principal, gives the total remaining principal, together with accumulated unpaid interest, as \$13,237,290,908.97 on November 15, 1939. This amount was due from seventeen foreign governments. The amounts involved in lend-lease transactions during the Second World War are discussed in Chapter 36.

If the second of these items is included, the net creditor position of the United States in 1939 was \$15,140,290,000. Whether it should be added cannot readily be answered. The preparation of a balance of international payments is beset with difficulties of which this is an outstanding illustration. Precision is impossible. With this highly important qualification we may say that the statements for the United States which have just been summarized are most helpful.

BALANCE OF PAYMENTS FOR REGIONS, ESPECIALLY EUROPE

In the latest of its annual volumes entitled *Balances of Payments* issued in 1939, the Economic Intelligence Service of the League of Nations presents statements of balances of payments for twenty-seven countries. There are also numerous private studies of particular countries. They vary in the amount of detail given and in the accuracy with which they have been prepared. The leading features of a proper statement have been sufficiently emphasized by our discussion of two of them, and we shall merely notice that many have been compiled and that they vary widely in detail, in precision, and hence in their value to the student.

For many purposes these statements by countries are the most helpful we could have. But there are often needs for similar studies on some other basis, for example, the regional. Even small geographical areas have economic relations with the rest of the country or the world which could be better understood if accounts for the region could be compiled. Even more valuable, in many instances, would be accounts for large regions, perhaps including several countries,

or a continent, or even regions which have boundaries that cut across national boundary lines. But financial statements for regions are extremely difficult to prepare. The data must for the most part come from national sources and then be consolidated for the region covered. Errors in the national estimates may be pyramided in this procedure and, of course, the overlapping of figures must be allowed for.

There are many such regions for which financial statements would be helpful. For some purposes, for example, a study of North America, or of South America, or of Latin America, or of the entire Western Hemisphere could be used to great advantage. For other uses the Far East, or southeastern Asia and the Philippines, or the Near East would be better. Needless to say, each of these areas should be carefully defined. Because its data are more abundant and reliable, because of its size, and because of current world strains, Europe calls for special consideration, and two valuable attempts have been made to construct a sort of balance of payments for that area.

Nazi Europe. One is by Miss Cleona Lewis assisted by John C. McClelland,³ published by the Brookings Institution. The choice of the area covered by this study is to focus attention "on the international trade position of a Nazi-dominated Europe," and the years 1929 and 1937 are the ones particularly examined, not for the sake of the past, but "to throw light on the future" and "to point out some of the limitations under which the trade and production of the area will have to operate in the future."

The conclusion reached is summarized in the last paragraph of the volume. The authors recognized the uncertainties of the political and economic future in Europe and in the rest of the world and were careful to avoid predictions. With this explanation the paragraph in question is reproduced in full:

Undoubtedly, Europe's threatened trade war could prove a major world disturbance. This is indicated by the intricate web of trade connections that have linked together the economies of countries in Europe and in outside areas. However, the import requirements of Nazi Europe are so large and so varied that she is scarcely in a position to buy or refrain from buying at will. Her exports are wanted, but are not indispensable. Barring the use of force, her position in world markets will be as weak or as strong as her capacity to pay for the goods she needs. Clearly this is an issue whose outcome cannot be dictated entirely by Nazi Europe.

³ *Nazi Europe and World Trade*, Washington, 1941.

In the body of their study the authors point out (1) that Germany under its old boundaries was greatly dependent upon the rest of the world, and (2) that Nazi Europe, including Germany, was even more dependent. The estimates for Nazi Europe compiled for 1929 and for 1937 are as follows, in millions of dollars (converted from marks at current rates of exchange):⁴

	1929	
Food, net imports	949.5	
Raw materials, net imports	<u>3,213.5</u>	4,163.0
Manufactures, net exports		<u>2,554.6</u>
Net imports		1,608.4
	1937	
Food, net imports	648.2	
Raw materials, net imports	<u>2,594.7</u>	3,242.9
Manufactures, net exports		<u>1,941.0</u>
Net imports		1,301.9

These are only the trade or "visible" items. The gap was filled by miscellaneous service and capital items. It is to be noticed that in 1937 there was still a two-way dependence, nearly as large (in dollars) as in 1929. The acquisition of *Lebensraum* cannot bring complete economic self-sufficiency unless (1) the area included is much larger than that of Nazi Europe, or (2) great and costly readjustments are made in the economic organization of the region. The readjustments necessary would call for a reliance primarily or solely on food and raw materials available within that area and a corresponding abandonment of external markets. In the absence of a phenomenal advance in "the state of the arts," these adjustments would result in a definitely lower standard of living.

It should not be overlooked, too, that the figures given are net, not gross, and hence may not adequately show the extent of mutual dependence. Net figures may be the difference between two quite small amounts of exports and imports, or between two quite large amounts. Moreover, small amounts (or values) in the aggregate or for particular items may be more or less significant, depending upon whether they are necessities or luxuries. Thus many articles of food, for example, wheat, are viewed as necessities, although others, for example, caviar, may be luxuries. A particular raw material such as manganese may be so essential in manufacturing processes that a cessation of its importation would seriously cripple an entire basic

⁴ *Nazi Europe and World Trade*, Washington, 1941, p. 178.

industry. Dependence cannot be measured solely by simple percentages or even by the monetary value.

The estimates just given are carefully made but another study should be mentioned.⁶ Miss Lewis has presented her findings in values, expressed in United States dollars. For some purposes this is suitable but for others physical quantity or in the case of food a unit of nourishment such as calories is better. Some articles properly classified as food may be expensive but furnish little nourishment, or the reverse may be true.

Richter's estimates are for food only and are for nearly the same area as those of Miss Lewis, although he adds Finland, Esthonia, Latvia, and Lithuania. Both find a number of countries with a surplus of food production and others with a deficit, and there are some differences in their groupings of particular countries. Richter's estimates are for the period "between 1936 and 1938," and his conclusion is that Continental Europe was 91 per cent (or perhaps 88 per cent) self-sufficient. In this area, "only about 10 per cent of the food calories consumed were imported, either direct or in the form of feedstuffs." He points out that, with "pre-war levels of production and population numbers, a 10 per cent increase in continental European crop production . . . would have made the continent self-sufficient without any change in the composition of its diet." But he also notes that "In protein and carbohydrate the continent was 95 per cent self-sufficient; in fat, only 73 per cent." His estimates cover only food and show nothing of the dependence on other areas for raw materials and markets.

Europe's Trade Balance. For a number of years the Economic Intelligence Service of the League of Nations prepared an *Annual Review of World Trade*. This annual has been discontinued, but early in 1941 there was published in its stead a volume entitled *Europe's Trade*.⁶ In its preface is the following explanation:

The general objects of the study are to consider what was the part played by Europe in the trade of the world, how far Europe was dependent upon external markets and external markets dependent upon her, to estimate the importance to her of what, in the absence of a better term, is known as Empire trade, and to illustrate the commercial and general economic interdependence of different parts of the continent.

⁵ Richter, J. H., "Continental Europe's Pre-War Food Balance," *Foreign Agriculture*, Washington, Department of Agriculture, August, 1942, pp. 299 ff.

⁶ Geneva, The League of Nations. Available in the United States from the Columbia University Press, New York.

Difficulties in Regional Figures. In preparing a study of the economic relations of an area, including a number of countries, with the rest of the world, there are many difficulties, of which three may be mentioned. The first is that the data used are secured for each of the countries separately and then combined. But many of the imports and exports are with each other, that is, in the case of an area like Europe they are intra-European. In order to avoid double-counting, these transactions must be eliminated and only those with areas external to Europe should be included.

A second difficulty is that each country presents its transactions (if expressed in value terms) in its own monetary unit — franc, mark, pound, lire, and so forth. These must be translated into some common unit when a general picture of the area is given. The League of Nations report does this by converting the various monetary units into “new gold dollars.” By this is meant the United States dollar subsequent to the “devaluation” in 1933. Before this date the dollar had contained 23.22 grains of pure gold. This was reduced and the “new gold dollar” contains 13⁵/₇ grains of pure gold.

The third difficulty is the choice of a year for which the information is to be given unless, of course, a number of years are included. To survey many years would be too long and involved a task, while the choice of any one year may bring the criticism that it is not “normal” or “typical,” or that it is in some other particular unsatisfactory. The year 1935 was decided upon because it was relatively recent and because it was not affected by the international disturbances of the years immediately following.⁷

These are only three of the many difficulties. Because there are so many imperfections in the basic material used and so many awkward decisions to make regarding methods employed, students are warned that precision in results is not to be expected and that what the author of the League report calls “reservations regarding accuracy,” are in order.

Europe's Intratrade. A striking fact about Europe is that much of the trade is between the countries as distinct from trade with outside areas. Ten of the countries included in the survey by the League of Nations are considered to be highly industrialized. In 1935 these ten received 49 per cent of their imports from Europe and 60 per

⁷ It may have been noticed by the reader that the study of Nazi Europe by Miss Lewis just discussed uses more than one year, the two particularly presented being 1929 and 1937. Both her study and that of the League of Nations of necessity include data for a number of other years.

cent of their exports were absorbed by Europe. Among them the United Kingdom was least dependent upon Europe, the two percentages in the same order being 34 and 37, while Austria was the most dependent, the percentages being 82 and 89, again in the same order. The other eighteen countries included are less industrialized and are more dependent upon the rest of Europe, receiving 75 per cent of their imports from Europe, with 85 per cent of their exports absorbed by Europe.

Europe's Trade with the Outside World. This dependence of the countries of Europe upon each other is to be explained in part by their proximity to each other, but also by the fact mentioned earlier that there are really two Europes that are somewhat complementary. The western part of the Continent has emphasized industrialization, while the rest has remained largely agricultural and the source of certain raw materials. This internal dependence does not, however, mean that Europe does not rely heavily upon other parts of the world. It is dependent on trade in which its balance is "passive," that is, there is an excess of imports over exports; and it is dependent upon its invisible exports which must be maintained if the imports are continued in the same volume as in the past. There are alternatives. One is to expand exports. A second is to reduce imports, which in the absence of a greatly enlarged productivity means a lowered standard of living, particularly if fewer raw materials are imported. A third is to borrow abroad, which accumulates obligations for future servicing.

Looking first at trade — the visible items — we find the situation for Europe including the U.S.S.R. as given in Table 30.

TABLE 30
EUROPE'S TRADE WITH THE OUTSIDE WORLD
(In billions of new gold dollars)

Year	Imports	Exports	Import balance
1925	14.78	8.21	6.57
1928	14.86	8.98	5.88
1935	5.28	3.25	2.03
1937	7.33	4.27	3.06
1938	6.53	3.73	2.80

SOURCE: *Europe's Trade*, Geneva, The League of Nations, 1941, p. 17.

In 1928 there was an import balance on merchandise account of \$5,880,000,000. In later years it was less, particularly after the de-

pression starting in 1929, but it was a higher percentage of total trade than before. The dependence is clear and is even more striking when the large items in the imports are noted since they are food-stuffs such as wheat, meat, coffee, maize, tea, butter and so forth, and raw materials including cotton, wool, wood, and petrol. The total of the import balances of sixty-five miscellaneous items in 1935, largely food and raw materials, was \$4,171,000,000.⁸ This dependence is not fixed in amount, nor unqualified. The amounts vary from year to year. Some items, copper, for example, must be imported if acquired at all, while others, such as wool, can be and are produced in part within Europe.

No exact listing of the invisible exports is possible but the source used⁹ estimates that "interest and dividends" and "services" for Europe (excluding the U.S.S.R.) were \$6,400,000,000 in 1928 and \$2,790,000,000 in 1935.

BALANCE OF PAYMENTS OF LATIN AMERICA

One other large region may be mentioned. "Few areas in the world are as dependent upon foreign trade and investment as Latin America."¹⁰ The dependence of each nation is considerable, and numerous studies of them have appeared. The area as a whole has had an active balance of merchandise trade during the Second World War but the figures given below are for two prewar years. The nature of the merchandise varies widely, since some of the countries are particularly the source of mineral products and others of agricultural products, tropical and nontropical. The exports and imports of the area as a whole for 1935 and 1938 were:¹¹

	1935	1938
Exports	\$1,880,000,000	\$2,020,000,000
Imports	2,030,000,000	2,330,000,000

As those of particular countries and other large areas, these totals do not reflect adequately the nature and degree of dependence. The total values show much, and the difference, large or small, is suggestive, but the detailed composition of the trade would indicate the extent to which Brazil, Colombia, and Costa Rica rely on exports of

⁸ *Europe's Trade*, *op. cit.*, p. 55.

⁹ *Ibid.*, p. 31.

¹⁰ Olson, Paul R., and Hickman, C. Addison, *Pan American Economics*, New York, John Wiley & Sons, 1943, p. III.

¹¹ *The Network of World Trade*, Geneva, The League of Nations, 1942, p. 47.

coffee, Bolivia on tin, Venezuela on petroleum, and so on. Another evidence of dependence is found in the estimates of foreign investments in the area. One ¹² is that the investments of the United Kingdom and of the United States were \$8,500,000,000 in 1939 but this is presented as merely "a rough idea."

CONCLUSIONS

The survey in this chapter has been designed to make clear a few details of the balance of international payments, and to show that estimates even for large areas indicate a bewildering degree of dependence in the modern world. In the next chapter attention will be given to the generalizations that seem proper, or to what is frequently called the "theory" of the subject.

¹² *Ibid.*, p. 56.

CHAPTER 15

THEORY OF THE BALANCE OF PAYMENTS

In discussions of international trade and investments, some writers have urged that at least "in the long run" there must be an equality or balance between the imports and the exports of a country. The expression "imports must equal exports" is frequently used. We are now ready to consider this and other general matters in connection with the balance of international payments.

One comment, of course, can be made. "In the long run" is very indefinite and any generalization thus qualified is difficult to analyze. One economist has observed that in the long run we shall all be dead — a reminder that we perhaps should give our attention to matters more immediately at hand. Moreover, this is a dynamic world and any generalizations and particularly any prophecies based upon the events of a few years or decades, or for so long a period of time as a century, may be upset by profound changes in the organization and methods of functioning in economic life.

WHAT IS A BALANCE?

Attention has already been drawn to the different parts or divisions in the balance of international payments. The form prepared by the League of Nations and suggested for use by reporting countries is divided into two parts: (1) trade and service items, and (2) capital movements. Each of these has subdivisions.

A Balance on Current Account. There is no reason for expecting that an individual will buy each day or each week, or even each year, commodities and services that will be exactly equal in value to the commodities and services he sells to the community. On Saturday a worker may receive a weekly pay check which amounts to more than his expenditures on that day. On other days, when he may have no receipts, his expenditures will continue. There is no daily balance. In many or probably most cases, there is no exact weekly or monthly or even yearly balance. For each of any of these periods, there may

be an excess of receipts and we say the worker has been saving. During other periods his expenditures may be larger and he is "living on his savings" or "going into debt." In fact, this lack of balance may extend indefinitely, perhaps through his lifetime. He may be supported for years by private or public funds, or he may for years continue his savings and at death leave a large or small "estate."

A corporation similarly has no daily or weekly or yearly balance and may never have one. If expanding, it may have current receipts in excess of current expenditures. This excess may be used to pay dividends or to retire debt or be "plowed back" into the business. On the other hand, there may be extended periods in which current expenditures are the larger. It is often possible (if certain legal limitations are carefully observed) to continue paying dividends out of the earnings of previous years.

Much the same may be said of regions within a country. Statistical support may not be available for the contention that over decades of time the people in a certain area, for example, the Boston or New York or Philadelphia area, or at least some of them, go on adding to their investments in other areas, but it is possible that they have done so. There is no yearly balance, and it may be there is never a balance of current income and outgo.

A Balance of Capital Items. These comments make it clear that there is no reason to expect a short period balance of capital items. Under favorable conditions, an individual or a corporation or a government may increase borrowings, the debt to outsiders continuing to grow. Or under other conditions debts may be reduced. The pertinent considerations are the nature of the activities carried on, the growth or diminution of the desire for capital accumulations, and the ability of the borrower to maintain his reputation as a "good risk."

A Balance of Both Groups. If the two groups are combined, our conclusions must in most cases be different. If an individual in a certain week or year includes under expenditures his outlays not only for such items as food, clothing, rent, and amusements, but what he has spent in buying bonds and stocks, and what he has deposited in savings accounts, and so on, and if he includes under receipts all that he has acquired from sales of securities, reductions in bank balances, borrowings, and so forth, then, of course, receipts and expenditures will balance. There is one exception: Gifts one way or the other have nothing to offset them.

The same situation is true of a corporation or of a government. In fact, an exact balance can be shown not only for each year but for each week or for each day, or for any other period of time.

AN INTERNATIONAL BALANCE

If those who say that in the long run "imports must equal exports" or that "exports must equal imports" intend to include all trade and service items and all capital transactions, both long-term and short-term, then there is no reason to question the statement. Even a sale of goods abroad on open account would have as a balancing item a charge on the books of an exporter. But this sort of an assertion is so obvious that we may designate it as a truism. The only possible exception which we shall not now stop to analyze is gifts across national frontiers. As these appear in the ordinary statements they are small in size and in importance.

Merchandise Trade. Some who argue that imports must equal exports are thinking primarily of merchandise or commodity movements — of visible items. Any examination of trade statistics shows that there is no such "trade" balance, even over extended periods of time. There are decades during which merchandise imports are larger than merchandise exports and other decades in which the reverse is true.

Several illustrations of this lack of balance in merchandise trade may be given. The United States had ordinarily an excess of merchandise imports over merchandise exports from 1791 to 1873. There were occasional exceptions as, for example, 1811 and 1813 in the early part of this long period and a number of other somewhat scattered years in the latter part. Since 1873 there has been an excess of exported over imported merchandise, with only a few years showing the reverse: 1875, 1888, 1889, and 1893.¹ It seems clear that, over decades, merchandise exports may be either smaller or larger than merchandise imports. If gold and silver are included under merchandise, the result is the same after 1876 until 1934, 1935, and 1936, when an excess of merchandise exports became an import excess by the inclusion of the two precious metals.

The merchandise trade of France may be used as another illustration. There are many awkward difficulties to be overcome in the case

¹Other exceptions may be found, depending upon whether we adjust the figures to allow for re-exported foreign merchandise. This item is small and adjustments to allow for it alter the balance only occasionally.

of French trade statistics, but they are of significance only when the difference between the amounts recorded for inward and outward trade is moderate in amount. With this qualification, it is to be noted that the merchandise imports of France exceeded the merchandise exports every year from 1880 through 1938 with the exceptions of 1905, 1924, 1925, and 1927.² From 1872, Italy had an excess of merchandise imports over merchandise exports every year without exception.³ From at least the middle of the nineteenth century, British visible imports have been less than visible exports.

Invisible Items. These four illustrations — the United States, France, Italy, and the United Kingdom — are sufficient to show that there has not been a balance between import and export trade, that is, merchandise trade, even through extended periods of time. It may be argued that if the data are assembled for longer periods, the contention about a trade balance may be true. But if centuries of time must be considered, the significance of such a balance, if by a miracle it should be found, is nil. There is no reason for expecting such a trade balance, especially in recent years when service items and other invisible items have been of growing importance. But it may be that if these are included a tendency toward such a balance will be shown and within short periods.

There have been many and very competent studies of particular countries and the findings of a few of them may be cited. It will be remembered that we are now referring to the combined "trade and service items." For France from 1880 to 1894 (both inclusive), Harry D. White⁴ found an excess of debit items over credit items in every year except 1890 when there was an equality but without including revenue from foreign investments. Beginning with 1895 and continuing through 1913, there was a similar balance in one year, 1901, with an excess of credit items in eleven years and of debit items in seven years. During these thirty-four years, the debits were ordinarily and in the aggregate in excess of the credits, but for the entire period covered by the study (1880-1913), the credits exceeded the debits by a very large amount. The French Government

² White, Harry D., *The French International Accounts, 1880-1913*, Cambridge, Harvard University Press, 1933, p. 44, and Haight, Frank Arnold, *A History of French Commercial Policies*, New York, The Macmillan Company, 1941, pp. 88 and 120.

³ McGuire, Constantine E., *Italy's International Economic Position*, Washington The Brookings Institution, 1926, pp. 264, 287, and 296; United States Tariff Commission, *Italian Commercial Policy and Foreign Trade*, Washington, 1941, pp. 69, 71, and 82; and *The Statistical Year-Book of the League of Nations, 1940-41*, Geneva, 1941, p. 171.

⁴ *Op. cit.*, p. 119.

and people were not currently collecting all that was due them from abroad. This is shown by White's calculations that the total of these French investments abroad in excess of investments by foreigners in France increased from 9,120,000,000 francs in 1880 to 39,345,000,000 francs in 1913.

While there have been many calculations of the balance of international payments of the United States, it will be enough for our present purpose to notice the twenty-one year period from 1919 to 1939. From 1919 to 1935 (both inclusive), and in 1938 and 1939, there was an excess of credits in the commodity and service account. Only in 1936 and 1937 was there an excess of debits amounting to but \$166,000,000 for the two years combined.⁵

Countries are like individuals and corporations. They do not maintain a "balance" with the rest of the world by exporting even for extended periods of time commodities and services of a value equal to that of their imports. Instead, one may exceed the other for decades and a national economy may be a creditor, leaving an excess of credits abroad as foreign investments, or a debtor, retaining the excess of commodities and services received by it from other countries. According to various estimates, Germany's investments abroad were from 10 to 13 billions of marks in 1892 and from 18.26 to 25 billions of marks in 1914.⁶

THEORY OF THE FOUR STAGES

A fondness for generalizations has led to the suggestion that a country goes, or at least strongly tends to go, through four stages in its relations with the rest of the world. These are in order those of: immature debtor, mature debtor, immature creditor, mature creditor. They may be briefly described.

Immature Debtor. A new or undeveloped country may have a considerable area of fertile land, large forests, valuable mineral deposits, and other resources. At the same time, the population may not be large or, even if it is, there may be very few tools and machinery for use in production. Of the three factors of production ordinarily described by economists — land (or natural resources), labor, and

⁵ *The Balance of International Payments of the United States* (in 1936, 1938, and 1939), Washington, United States Department of Commerce.

⁶ Moulton, Harold G., and McGuire, Constantine F., *Germany's Capacity to Pay*, Washington, The Brookings Institution, 1923, p. 260.

capital — there is an abundance of the first and probably a shortage of the other two, especially of the third. Productivity is accordingly retarded until more tools and machines, that is, capital (or, as some call it, artificial capital) are available.

But capital, we are told, arises out of saving. It increases in amount because human beings consume in daily living less than they produce. More concretely, these human beings restrict the time and materials that might be used in producing food, clothing, and other articles of current consumption, giving some of their effort to producing the tools and machines that will make possible a larger output of consumption goods at a later date. In a new country where standards of living are low, this is necessarily a slow process and involves considerable real sacrifice.

This immediate sacrifice can be lessened and development of the country hastened if the capital (tools and machines) can be imported. Since, by definition, the country is poor, these cannot be paid for in full. Some products, such as foodstuffs and raw materials, can be exported, but not in quantities large enough or in values high enough to pay for the capital. The problem can be met, however, if foreigners are willing to take promises to pay at a later date with interest at some agreed rate. Governments and private enterprises may be able to sell abroad bonds, stocks, mortgages, or other pieces of paper, thus securing the funds with which to pay for the imported capital. During the period, perhaps of many years, in which this is going on, the imports of the new country are larger in value than the exports and the country is accumulating a debt to the outside world. It is a debtor country and in the immature stage.

Mature Debtor. As time passes, the productivity of the new or borrowing or debtor country increases. The debt may become very considerable in size and the amount of interest (and dividends) payable each year reaches a considerable total. Foreign investors expect to be paid this interest (and dividends), and as principal sums fall due these amounts, too, must be paid them. Perhaps they or other foreigners may reinvest these principal sums in the debtor country, but the volume of current payments due merely as interest and dividends may become so large that the value of the exports from the debtor country will be greater than the value of its imports. The appearance of this excess of exports indicates that the new country, though still a debtor, has passed out of the immature stage and become a mature debtor. Immaturity of a debtor is characterized

by an excess of imports, but a mature debtor country will have an excess of exports.

Immature Creditor. But the debtor country, if all goes well, may greatly increase its productivity. Aided by the early imports of borrowed capital, the national income advances rapidly. Of course, there has from the outset been some local saving, but this amount may become more than enough to meet interest due annually to foreign creditors. If so, this excess may be invested at home but, on the other hand, there may be attractive opportunities abroad. Perhaps citizens of the debtor country in question may begin the purchase of foreign securities. As such investments are made, the borrowers in these other and less developed parts of the world will use their borrowed funds to buy in the lending country. This still further increases the latter's excess of its exports over its imports. The country we are using as an illustration has now become an immature creditor. As an immature debtor, it received an excess of imports. When it became a mature debtor, exports exceeded imports. As an immature creditor, it has an enlarged excess of exports because it is, in addition, exporting new capital.

Mature Creditor. More time passes, and the accumulation of these investments in foreign stocks, bonds, mortgages, and other investments may become very large, and the amounts due from abroad as interest and dividends may become so great, that the tide will again turn inward. The investors in the country we are considering may or may not insist on the repayment of principal sums or, if they do, other investors may purchase a corresponding amount with no reduction in the creditor position of the country as a whole. But as interest on the accumulated foreign investments falls due and is paid, the total annual receipts from abroad may become greater than total annual payments to abroad. There will once more be an excess of imports over exports. To this extent the country that was once a debtor will have become a mature creditor in its relations with the rest of the world. It will be enjoying an income part of which is being currently produced in other countries.

Comments on the Four Stages. This description of the four stages of development is attractive. It is simple and seems plausible. Like other partial truths, it is sufficiently accurate to be very helpful but, at the same time, so inaccurate as to be misleading if not used very carefully. It is possible to find statistical support for it in part. On the other hand, the student is perplexed when he realizes that not all

countries could pass into the fourth and final stage. If they could, we would have the puzzling situation of all of them being creditor countries with no debtor countries in sight. Also, he is troubled if he endeavors to find a country which has clearly become a mature creditor. Only one illustration need be mentioned. It is often said that the United Kingdom is a mature creditor. However, this statement is usually made only after a hurried and careless examination of the "trade" statistics. For many years the United Kingdom has imported merchandise of greater value than that of its exported merchandise. But if the "invisibles" are included, there is an excess of credits over debits (with exceptions from time to time as in the two world wars). Through decades the people of the United Kingdom have been adding to their overseas investments instead of accepting an excess of imports. Similarly, for long periods of time the people of other countries are able to increase their borrowing from abroad and remain debtors.

THE CONCEPT OF EQUILIBRIUM

It may have been noticed that in the preceding discussion the word "balance" has been used without any attempt at a definition. It should now be examined more carefully for it may have at least two meanings. One is "equality." Scales balance if the weight on one side exactly equals the weight on the other side. The two sides are said to be in equilibrium or to balance. A statement of a balance of international payments always balances if all the data (including short-term as well as long-term capital transactions) are known and are included. If the capital transactions are not included, there is never or almost never a balance even for extended periods — years or decades. A second meaning for "balance" is an excess of one amount or force over another. I may refer to my bank account as having a balance. Also, I may speak of the excess of my assets over my liabilities as a balance, or, if my debts are the greater, a balance of indebtedness.

For present purposes, another term may be better and "equilibrium" is often employed. Again the idea of equality may be suggested. There seems to be no way by which a choice of terminology can fully protect us against confusion. Nearly every word that we may use has connotations, and all we can do is to attempt a definition of the terms chosen and then be constantly on guard in their use.

Meaning of Equilibrium. Equilibrium and equality are not synonymous. It may be said that there is an equilibrium in the international balance of payments, not when income and outgo are equal, but when they are in such amounts and in such relation to each other that "disturbances" do not arise. If there are disturbances, large or small in amount or in significance, counteracting forces may operate to restore the equilibrium.

Thus defined, the concept is still rather vague. How are we to know when equilibrium exists? What is a disturbance? The best that can be done is to say that equilibrium is that relationship between the various items of income and outgo which has a tendency to persist and which tends to be re-established when it is disrupted. It is not necessarily the usual or the regular or the "normal." The balance of payments of a country might be "off equilibrium" for an extended period. In fact, disturbances are always present, and probably no country ever has a balance of payments that is in perfect equilibrium. If a common figure of speech is employed, equilibrium is like the concept of "sea level." The sea is never at "sea level" but is always (or to be literal, almost always) above or below that level.

Disturbing Influences. The disturbing influences are numerous. Sometimes they are so slight as to seem unimportant. A country which exports agricultural products, such as wheat and cotton, will ship a larger volume of them at certain seasons of the year than at other times. A serious drought or a flood or particularly favorable weather may decrease or increase the amount of crops available for export. A speculative boom like that in the United States just prior to 1929 may occur. There may be a threat of war. Debtors in some country may find themselves unable to meet their maturing promises to pay. Such a situation arose in May, 1931, when the Creditanstalt of Vienna failed. The disturbing influences may be large or small, prolonged or temporary, serious or relatively insignificant.

Restoration of Equilibrium. When disturbances occur, there is a tendency for offsetting influences to operate. Many observers consider that gold movements are the usual and major force tending to restore the balance. More of the technical details will be mentioned later, but the general idea is that if some disturbing influence increases the pressure on a country to meet obligations abroad, the value of its money in terms of the money of the other country (or countries) concerned will fall to a point where exports of gold will

occur and the movement of the gold, along with secondary influences set in motion by it, will restore the balance or equilibrium. Gold is thus given a position of special importance in international transactions. This often leads to the view that gold and gold only is the balancing item.

Changes in Bank Balances. A further study of a balance of international payments statement, as, for example, that of the United States in Table 29 in the preceding chapter, is a reminder that there are many items on each side. To match any one credit item against another debit item is ordinarily not possible. The statement should first be viewed as a whole, and then the combination of circumstances at any given time should be analyzed.

One item is "movements of short-term banking funds" and included under this heading are the changes which have occurred in the amounts held in foreign banks by United States banks for ordinary business use and the corresponding amounts held by foreign banks in United States banks. These amounts are constantly changing. At any given time, the banks in country A have deposits with banks in other countries and vice versa. If they fall so low as to interfere with business demands, they can be increased by securing credits of some kind. Thus in the 1920's the volume of merchandise exported from the United States was maintained at a high level. Purchasers in other countries went to their banks to buy drafts on banks in the United States which could be used in payment. There was also a heavy "demand for dollars" by governments, corporations, and individuals who were indebted to similar parties in the United States. The situation was met and on a large scale by the sale of new promises to pay which were purchased in the United States. These capital transactions were a steadying influence, keeping up the supply of dollars in the face of a heavy demand.

How this "equilibrium" was maintained is shown by Figure 23. In the top part of the figure is shown the world supply and use of dollars, and it will be noticed how closely the two lines of the figure agree, never diverging greatly. The middle and bottom parts of the graph should be examined together. It will be noticed that the United States exports (merchandise) were regularly greater than imports (merchandise). Amounts due the United States on "service transactions" were sometimes larger and sometimes smaller than sums due in the other direction but there was regularly an excess to the United States on these current accounts. While there was

BILLIONS OF DOLLARS

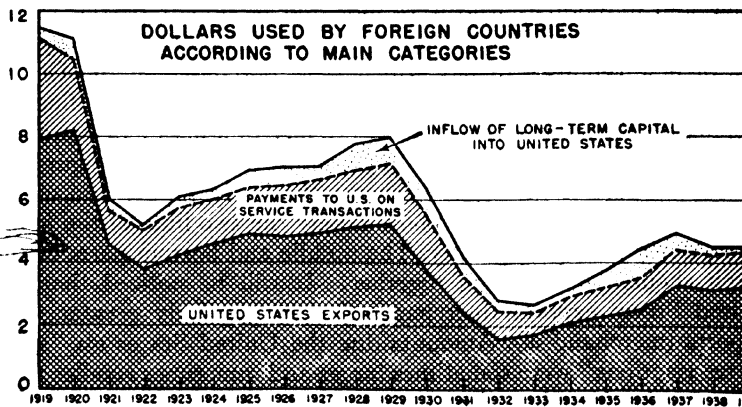
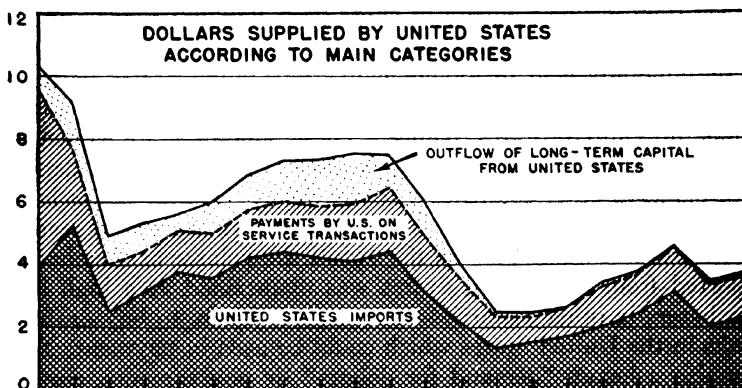
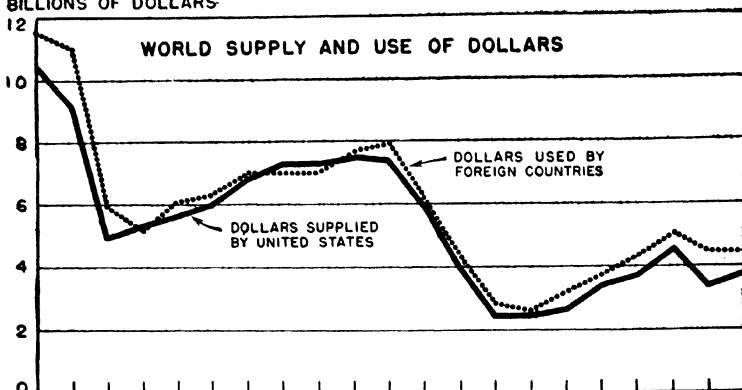


FIGURE 23. World supply and use of dollars. (From *The United States in the World Economy*, Washington, U. S. Bureau of Foreign and Domestic Commerce, 1943)

some "inflow of long-term capital" into the United States, the outflow was larger through 1930. Gold and short-term capital movements are not included and estimates of the latter are not available until 1923. The balance of both was in some years outward and in other years inward but not to a degree that alters the general statement that until 1930 an equilibrium was being maintained by capital exports from the United States.

After 1930 the situation changed. Capital exports from the United States diminished and beginning in 1934 the net movement was inward. Merchandise transactions in both directions declined but exports remained the larger. In the following five years the resulting lack of balance was offset by heavy importations of gold which in 1939 amounted to \$3,018,000,000 (net).

CONCLUSIONS

First, it is not correct to say that imports must or do equal exports if the reference is to merchandise only or even if all current transactions are included. If capital movements are added — both long-term and short-term of all kinds — the statement may be a truism.

Second, there is a tendency toward the maintenance of an equilibrium but the item that operates in this way may be almost any one of the long list found in the statement. It may be capital transactions that quite clearly operate but on other occasions it may be gold. But a large influence may be and is exercised by alterations in merchandise movements.

Third, particular items on one side of the statement cannot rigidly be set off against particular items on the other side. The largest single items are merchandise exports and imports and, as will be shown later, there is more of a relationship between these two than can be found between any other two items. But it is better usually to compare the aggregate on one side with the aggregate on the other.

Fourth, it does not follow that "collapses" can be avoided, though the word should be used with care. In the latter part of the period covered by Figure 23, there was such a shortage of available dollars that many creditors in the United States had to accept defaults and, in some cases, the bankruptcy of their foreign debtors. Other transactions continued but losses, some only temporary or partial but others permanent or complete, had to be accepted.

Fifth, instead of saying that imports must or do equal exports, even in the long run it is more accurate to observe that unless an

adequate volume of current and capital transactions can be maintained and in the appropriate directions, the situation will be met in part by defaults and repudiations.

SELECTED REFERENCES

Aftalion, Albert: *L'Équilibre dans les Relations Économiques Internationales*. Paris: 1937.

Lewis, Cleona: *The International Accounts*. Washington: The Brookings Institution, 1927.

McGuire, Constantine E.: *Italy's International Economic Position*. Washington: The Brookings Institution, 1926.

Viner, Jacob: *Canada's Balance of International Indebtedness, 1900-1913*. Cambridge, Harvard University Press, 1924.

White, Harry D.: *The French International Accounts, 1880-1913*. Cambridge, Harvard University Press, 1933.

Williams, John H.: *Argentine International Trade under Inconvertible Paper Money, 1880-1900*. Cambridge: Harvard University Press, 1920.

PART FIVE
WORLD TRADE

CHAPTER 16

AMOUNT AND IMPORTANCE OF INTERNATIONAL TRADE

Each part of the world is dependent on every other part. With population so dense in many areas, present levels of living can be maintained only if a considerable economic intercourse with other areas is carried on. This is not only particularly true of some regions where incomes are only a little above the subsistence level but true also of other regions where present incomes are relatively high. For example, it is hard to see how some 47,000,000 persons could be supported in the United Kingdom in the absence of a considerable volume of exchange with other parts of the world.

That this interdependence is intricate has been amply shown by our brief survey of international and interregional accounts; by the concentration of population; and by the quite different distribution of natural resources to which modern life has become adjusted. It is shown by the dependence of some on the import of food and raw materials and the export of manufactured articles; of others on the export of food and raw materials and the import of manufactures. In many cases it is a bewildering mixture of trade of all kinds. Even countries which export some kinds of food and raw materials import other kinds. In addition to the exchange of "visible" items, there are the "invisibles." Finally, as a result of past transactions, some areas are creditors (net) to other areas which are debtors (net).

While food of some kind and amount can be raised in nearly or quite all parts of the earth, there are climatic and other limitations which so restrict the volume and raise the costs that complete reliance on domestic food supplies is either impossible or so expensive as to be unwise. Many raw materials are found in certain regions and not in others.

Any large redistribution of world population seems out of the question. There are political obstacles, but even if they were removed the mere costs of shifting and relocating hundreds of millions

make this method of lessening strain unwise. Moreover, there would not be a net economic gain for the world if the expenses could be met and political barriers were removed. Now that the Second World War has come to an end, there are readjustments in large numbers for political, religious, and racial reasons. As yet, however, it does not appear that the net result will be any very great alteration in relative population densities.

If these general statements are approximately correct, there is left the alternative of facilitating economic intercourse between countries and regions. Since levels of living can not be maintained or raised by moving people, it may be that the desired result can be secured by increasing trade. Unless our manner of living is to be greatly altered, we must encourage rather than discourage the interchange of commodities and services.

An inquiry into international trade has several purposes. Among them are:

(1) to ascertain the amount and composition of such trade because some argue that it is large while others contend that for some countries as, for example, the United States, it is not very important;

(2) to learn something of its fluctuations through periods of time since these changes may create or accentuate economic strains;

(3) to inquire whether modern developments are increasing or decreasing its amount and significance;

(4) to record the general explanations or theories that have been formulated about it; and

(5) to consider what changes, if any, are occurring that require either a modification of the older theories or perhaps some new formulation.

These are a few of the matters that should be examined and conclusions reached concerning them if we are to understand international trade and if public policies about it are to be wisely formulated.

THE AMOUNT OF INTERNATIONAL TRADE

The foreign trade of a country is not so large in value or in physical volume as its domestic trade. But we may first notice the aggregate amount of "international" trade. While the expression "world" trade is often used even in official publications the term

"international" often seems better. In what follows, however, the two words are used interchangeably.

TABLE 31
INTERNATIONAL TRADE IN RECENT YEARS

Year	Value in old United States gold dollars (000,000)			Value index in dollars	Quantum index
	Imports	Exports	Total		
1913	21,034	19,564	40,598	59.2	—
1924	28,978	27,850	56,828	82.8	75.7
1925	33,150	31,551	64,701	94.3	83.2
1926	32,117	29,920	62,037	90.4	85.2
1927	33,764	31,516	65,280	95.1	91.9
1928	34,652	32,728	67,380	98.2	95.2
1929	35,595	33,024	68,619	100.	100.
1930	29,075	26,477	55,552	81.0	93.0
1931	20,795	18,906	39,701	57.9	85.5
1932	13,968	12,885	26,853	39.1	74.6
1933	12,461	11,714	24,175	35.2	75.4
1934	11,981	11,333	23,314	34.0	78.2
1935	12,243	11,559	23,802	34.7	81.8
1936	13,142	12,581	25,723	37.5	85.8
1937	16,342	15,427	31,769	46.3	96.5
1938	14,319	13,417	27,736	40.4	88.8

SOURCE: Adapted from *Review of World Trade, 1938*, Geneva, The League of Nations, 1939, p. 60.

In Table 31 the *value* of international trade is given in "old" United States gold dollars. By "old" is meant dollars containing 23.22 grains of pure gold as contrasted with "new" dollars, that is, dollars containing less than 60 per cent of that amount, or $13\frac{5}{8}$ grains of pure gold. This reduction in gold content, commonly called "devaluation," will be discussed later. The conversion of recent values to "old" dollars gives a more accurate picture of fluctuations throughout the entire period than would otherwise be shown. Of course, a similar result could have been secured by converting the earlier figures to "new" gold dollars. There are three columns of values in dollars (imports, exports, and the total of these two), a fourth column in which is given a value index based on 1929 as 100, and a final column giving a similar quantum index.

First to attract attention are the fluctuations in imports, in exports, and in the totals. In 1913, just before the First World War, there was a total of \$40,598,000,000 which was 59.2 per cent of the high amount of \$68,619,000,000 in 1929. There was then a rapid decline to \$23,314,000,000 by 1934. This was 34 per cent of 1929.

Next to be noticed is that these changes are in values and not in physical amounts. It is not easy to indicate fluctuations of the latter sort but the experts of the League of Nations have made the attempt and have constructed a "quantum" index number which, starting with 1924, is given in the last column of Table 31. As just noticed, the fluctuation in values was between 100 for 1929 and a low of 34 in 1934. The quantum index, which also uses 1929 as a base, fell to a low of only 74.6 in 1932 and rose to 96.5 in 1937, declining to 88.8 in 1938. Thus the quantum of international trade fluctuated less than its dollar value. For some purposes value estimates are more helpful, but for other purposes it is well to know something about the physical amounts or the quantum.

Some Precautions to Be Observed. There are several precautions to be kept in mind as these figures are studied. First is that Table 31 contains three columns of values — imports, exports, and the total of the two. Since the imports of any country are the exports of other countries, an addition of the two is "double-counting": the totals roughly double the actual value of trade. The real value of the transactions is about one half of what it seems to be.

Next is the difference between the values of imports and exports. Since the imports of each country are the exports to it from other countries, an accurate statement would presumably show an exact balance. Yet in Table 31 the imports are regularly in excess of the exports. An exact balance can not be expected since the different countries use very different methods of collecting statistics, but the persistent excess of imports is to be explained by the fact that the value of imported articles ordinarily¹ is given c.i.f., that is, by including cost, insurance, and freight. The exports, on the other hand, are usually given f.o.b., that is, free on board the vessel on which they are shipped — insurance, freight, and other charges not being included.

These are only two of many difficulties to be encountered in presenting statistics of international trade. Two other illustrations may be given. For years one country included in its import statistics not only the value of imported wine but also the value of the casks containing the wine, the value of the empty casks being added also to the export figures. While the two may be said to have canceled out, the result was to swell both import and export values. The practice

¹ There are several exceptions that should not be overlooked, but the more usual practice is the one stated.

of another country was to accept invoice values for imports but exports had values placed on them by applying a table of unit values which were altered periodically. Thus in periods of rapidly rising prices exports were undervalued and in periods of rapidly falling prices exports were overvalued. Because of these and countless other diversities of practice, the League of Nations, as explained in Chapter 13, compiled a standard form to be used. It was, however, somewhat general and the outbreak of war in 1939 at least delayed its general adoption. In any case, the standard form could have increased only moderately the comparability of the statistics presented by the various governments.

COMPOSITION OF INTERNATIONAL TRADE

There are so many articles of merchandise entering into international trade that the totals just given do not reveal all that students and statesmen desire to know and need to know if the significant facts are to be clear and policies are to intelligently formulated. About all that has been shown is that there are extreme fluctuations in value and less extreme though significant changes in quantum.

It is possible to go a step farther by noting the composition of this trade by large groups. This composition is shown in Table 32, which gives data for three years only: 1928, 1935, and 1937. Unlike the preceding table, which was in old gold dollars, Table 32 is in new gold dollars and consequently the amounts are larger.

TABLE 32
COMPOSITION OF INTERNATIONAL TRADE IN MERCHANDISE
(In millions of new gold dollars)

	<i>Values</i>			<i>Percentage distribution</i>		
	1928	1935	1937	1928	1935	1937
<i>Imports</i>						
Foodstuffs and live animals	15,450	5,120	6,430	25.7	24.3	22.8
Materials, raw or partly manufactured	21,730	8,100	11,550	36.2	38.5	41.0
Manufactured articles	22,900	7,820	10,190	38.1	37.2	36.2
Total	60,080	21,040	28,170	100	100	100
<i>Exports</i>						
Foodstuffs and live animals	14,080	4,480	5,610	25.5	23.5	22.1
Materials, raw or partly manufactured	19,280	7,150	9,920	34.9	37.6	39.0
Manufactured articles	21,860	7,400	9,880	39.6	38.9	38.9
Total	55,220	19,030	25,410	100	100	100

SOURCE: Adapted from *The Network of World Trade*, Geneva, The League of Nations, 1942, p. 22.

This table (in values) divides merchandise into three groups:² (a) foodstuffs and live animals; (b) materials, raw or partly manufactured; and (c) manufactured articles. The first group is the smallest, while the other two are nearly the same in value. Also in the period covered a decline in values is to be observed in all three groups from 1928 to 1935 with an increase in 1937, but the figures of percentage distribution show that relatively the imports and exports of foodstuffs and live animals have declined. This is worth noticing. The period covered is only ten years, and sweeping conclusions regarding trends for long periods of time should not be hastily drawn. However, the trend for this one decade does reflect a general movement. Throughout the world, industrialization is growing and this increases trade in raw and partly manufactured materials. To this must be added the emphasis placed by many countries on national self-sufficiency in foodstuffs. The largest net gain is in "materials, raw or partly manufactured" as compared with the other two groups.

Differences between Countries. It is not to be expected that all countries will show the same distribution of trade between the three groups of commodities. Some countries are heavily industrialized with high percentages of their populations engaged in secondary or tertiary occupations, while others have but few industries and their people are engaged largely in primary occupations such as agriculture. (See Table 9 in the Appendix.) Several illustrations of the composition of trade are given in Table 33, the countries chosen being the United States, the United Kingdom and Ireland, and a group of French colonies — Algeria, French Morocco, and Tunis. This choice was made in order to emphasize the dependence of all countries but in different ways. The contrast is most noticeable between Great Britain and Ireland, an area largely industrialized, and the French colonies, where there is but little industrialization. The former, in the three years for which figures are given, imported foodstuffs and live animals with a value that was 40 to 45 per cent of total imports, while its food exports were only 10 or 11 per cent of its total exports. Imports of manufactured articles were 18 to 22 per cent of total imports but exports under this heading were 71 to 75 per cent of total exports. The French colonies, on the other hand, were much less dependent on imported foodstuffs which were a high percentage of their exports. They relied heavily on imported

² This is the "Brussels classification" of 1913.

manufactured articles which were only 4 to 7 per cent of their exports. Each was in a position of dependence — one relying on imports of food and raw materials and on exports of manufactured articles, the other on exports of food and raw materials and on imports of manufactured articles.

TABLE 33
PERCENTAGE COMPOSITION OF MERCHANDISE TRADE FOR
SEVERAL COUNTRIES

- a. Foodstuffs and live animals
b. Materials, raw or partly manufactured
c. Manufactured articles

Countries	Groups of commodities	Imports			Exports		
		1928	1935	1937	1928	1935	1937
United States	a	25	32	29	15	9	8
	b	50	47	51	43	47	42
	c	25	21	20	42	44	50
		100	100	100	100	100	100
United Kingdom and Ireland	a	45	45	40	11	11	10
	b	33	37	42	14	18	18
	c	22	18	18	75	71	72
		100	100	100	100	100	100
Algeria, French Morocco, and Tunis	a	21	26	28	66	77	70
	b	14	14	14	27	19	26
	c	65	60	58	7	4	4
		100	100	100	100	100	100

SOURCE: *The Network of World Trade*, Geneva, The League of Nations, 1942, pp. 23, 28, and 29.

THE DISTRIBUTION OF INTERNATIONAL TRADE

There is still another way of presenting the facts about international trade. Countries may be grouped in almost any combination. One is given in Table 34, eight large areas being taken. A mere glance at this table shows how large relatively is the international trade of Europe and of North America. A combination of the percentages for Continental Europe, non-Continental Europe, and North America gives a total of 64.9 per cent of the total imports and of 68.0 per cent of the total exports. It should be noted that these three areas are in the Northern Hemisphere and that a large part of these areas is densely populated. Also considerable portions of these areas have been industrialized. The same can not be said of any important part of Asia, certain sections of which are

densely populated while industrialization has lagged except in Japan. Still another consideration is that the countries or areas between which there is the most trade are the ones in which levels of living are the highest.

TABLE 34
PERCENTAGE DISTRIBUTION OF INTERNATIONAL TRADE IN 1938
BY LARGE AREAS

	<i>Imports</i>	<i>Exports</i>
Africa	5.1	6.3
North America *	18.3	12.3
Latin America †	9.4	7.8
Asia	15.9	13.7
U.S.S.R.	1.1	1.1
Continental Europe	35.6	37.9
Non-Continental Europe	11.0	17.8
Oceania	3.6	3.1
	100.0	100.0

SOURCE: *The Network of World Trade*, Geneva, The League of Nations, 1942; condensed and rearranged from a table on p. 40.

* United States (including Alaska), Canada, Newfoundland, Greenland, and St. Pierre and Miquelon.

† America, other than "North America" as defined above.

Tables 31-34 inclusive show the amount of international trade (both value and quantum); reveal its composition and its fluctuations (in the aggregate and in three groups); and indicate that it is largest between areas having dense populations and high levels of living. There may be added the significance of distance. Europe is a compact continent with a land area which is about 4 per cent of the world total and with a population which is only about 19 per cent of the world total. Yet Europe's trade before the Second World War was over one half of the aggregate for the world. For this there is no one explanation. A considerable part of Europe is heavily industrialized and its levels of living are relatively high. But the closeness of European countries to each other should also be noticed, since this closeness facilitates the transfer of goods at low transportation costs. In 1935, European countries sent to each other 64 per cent of their total exports and received from each other 54 per cent of their total imports.³

Another illustration of the importance of nearness is the trade of Canada with the United States. In 1938, the total imports of Canada were \$677,000,000 (Canadian dollars), of which \$424,000,000

³ *Europe's Trade*, Geneva, The League of Nations, 1941, p. 7.

or over 62 per cent came from her neighbor the United States, while of her total exports of \$838,000,000 she sent \$270,000,000 or 32 per cent to the United States. Again it should be emphasized that other factors are involved, but the fact that the two countries have a long common frontier that facilitates economic exchanges is not to be overlooked. In this same year the United States sent 16 per cent of her total exports to Canada and Newfoundland and received 15 per cent of her total imports from them.⁴

There should be added the further observation that mere nearness tends to increase the volume of trade between contiguous areas largely because costs of transportation are lower over shorter distances. Here as elsewhere in economic discussion the significance of costs is to be kept in mind. Consequently if for any reasons the cost of transporting commodities for a great distance is lowered, for example, by a reduction of freight rates, the volume of trade tends to expand. In the absence of offsetting influences, cost is the determining consideration and "cost increases, though irregularly with the distance." This idea has been expressed as "Lardner's law of squares in transport and trade," which is based upon the fact that the area of a circle varies as the square of its radius. It has been stated as follows:⁵

Improvements in the mechanism or the organization of transport, which increase the distance over which trade in certain goods can be carried at a given expense, are *prima facie* likely to increase in the square of that ratio the area over which the trade can be conducted profitably.

IS INTERNATIONAL TRADE LARGE?

These analyses still leave unanswered a question which has been stated often and in various ways. Is international trade large or small? Many writers insist that it is large and important. Others, with the same facts before them, reach the opposite conclusion. Perhaps it is possible to consider the available data and decide for ourselves.

First it is well to remember that large and small are relative terms. A common illustration is that an inch more or less in a day's journey seems trivial but the same inch is significant when added to or taken from the length of a man's nose. Clearly the question can not be answered satisfactorily unless some standard of size is chosen.

⁴ *The Network of World Trade*, Geneva, The League of Nations, 1942, pp. 50 and 52.

⁵ Marshall, Alfred, *Industry and Trade*, London, Macmillan & Company, Ltd., 1920, p. 27.

Trade per unit of area. A possible standard is the area of the country. It may be true that the larger the value (or volume) of international trade per square mile (or square kilometer), the more important that trade will be to the country concerned. If a country or a region is small, there will ordinarily be only a slight diversity of climate and there can be only a moderate variety of natural resources. There follows from this a tendency toward specialization in production and a consequent dependence upon other areas. An example is Belgium (with Luxemburg) with combined imports and exports in 1938 of \$27,000 (old dollars) per square kilometer, while the U.S.S.R. had a foreign trade of only \$14.49 per square kilometer in the same year.

It should at once be pointed out that there are many other factors besides superficial area to be considered. A country or region that is as heavily industrialized as is Belgium will have a larger amount of foreign trade. El Salvador (34,000 km²) has an area about the same as that of Belgium-Luxemburg (32,600 km²) but in 1938 the trade of the latter area was, as just stated, about \$27,000 per square kilometer, while that of El Salvador was about \$350 per square kilometer.

Trade per capita. Another approach is to express the foreign trade of any country or area in per capita terms. Divide the total trade (imports plus exports) by the number of persons in the area. The quotient may be the index we want.

At once we can see that a densely populated area such as New York City or London or Berlin or Paris will have a very large trade per capita with outside areas. Substantially all the food, clothing, fuel, and other products consumed within a large city must come from beyond its boundaries, as must the raw materials used in its factories. What is produced within the city is in part consumed there, but much must be sent out to other areas in payment for imports.

It is interesting to bring together data showing foreign trade per square kilometer and per capita for a number of countries. This has been done for seventeen countries in Table 10 in the Appendix, the figures given being for 1938 with the exception of Germany for which the area of 1933 is used with the trade of this same area for 1938. The countries were selected with a view to showing the relationship between size and trade. The first eleven are arranged in the order of trade per square kilometer. Four others in different

parts of the world show a large amount of trade per capita. The United States and Russia are added because both are large in area and each has a large population.

Belgium (with Luxemburg) comes first with \$27,147 per square kilometer followed by the Netherlands with \$24,154. Tenth in the list is Sweden and eleventh is Cuba with almost the same amounts. Finland, the Union of South Africa, Argentina, and Canada are twelfth, thirteenth, fourteenth, and fifteenth, respectively, with far lower amounts. They are added because they rank fairly high in foreign trade per capita. Because of their size and the variety of their resources, the Union of Soviet Socialist Republics and the United States of America are less dependent on outside trade. It will be noticed that the foreign trade of the United States is only \$377 per square kilometer, ranking below the Union of South Africa. Per capita the amount is only \$22.50. The corresponding figures for the Union of Soviet Socialist Republics are \$14.49 and \$1.78.

A further examination shows that the first five countries in order of trade per square kilometer are Belgium-Luxemburg, the Netherlands, the United Kingdom, Switzerland, and Denmark. In area, these are the smallest in the list with the exception of Cuba which is smaller than the United Kingdom. The five with the highest trade per capita are, in order, Denmark, Belgium-Luxemburg, Switzerland, Sweden, and the Netherlands, followed by Canada and the United Kingdom. With the exception of Canada, these also are countries of small area.

Foreign Trade and National Income. It has often been urged that the significance of foreign trade can best be shown by comparing it with the national income or perhaps with the amount of domestic trade. One method is to calculate the amount of foreign and domestic transactions combined and then to notice how much the foreign trade is of this total. One such attempt for the United States some years ago gave 10 per cent as the answer.

Better still, perhaps, is to notice the relation between national incomes and the amount of imports and exports, as shown in Table 35. Because of the many difficulties encountered by the United States Department of Commerce in the calculations of national incomes, the results are presented by it with some reserve, but there is no reason not to draw a few general conclusions. For some purposes, the percentage of imports to national income should be noted, since they must be paid for in some way out of the national income. For

TABLE 35

NATIONAL INCOMES AND FOREIGN TRADE OF SELECTED COUNTRIES
(1938)

Country and monetary unit	National income (000,000 omitted)	Foreign trade (000,000 omitted)			Percentage of foreign trade to national income		
		Import	Export	Total	Im- port	Ex- port	Total
Australia (Australian pounds)	814	138	138	276	17	17	34
Canada (Canadian dollars)	4,246	678	889	1,567	16	21	37
Denmark (Danish crowns)	4,600	1,625	1,535	3,160	35	33	68
France (French francs)	250,000	46,064	30,590	76,654	18	12	30
Germany (reichsmarks)	76,000	5,443	5,249	10,692	7	7	14
Japan (yen)	22,518	2,641	2,667	5,308	11	12	23
Netherlands (guilders)	5,234	1,414	1,039	2,453	27	20	47
New Zealand (New Zealand pounds)	223.5	56	66	122	25	30	55
Norway (Norwegian crowns)	3,761	1,180	774	1,954	31	21	52
Sweden (Swedish crowns)	9,979	2,082	1,843	3,925	21	18	39
United Kingdom (pounds sterling)	5,458	858	471	1,329	16	8	24
United States (United States dollars)	77,000	1,950	3,057	5,007	2	4	6

SOURCES: Amounts of national income as given in this table are estimates furnished the writer by the Bureau of Foreign and Domestic Commerce, Washington, D. C. Foreign trade figures are from *Statistical Year-Book of the League of Nations, 1939-40*, pp. 182 ff. The countries listed are the ones for which estimates of national income are available. It should be noted that the amount of United States foreign trade is greater than stated in certain other tables because this table uses "current" dollars, not "old" dollars. Also since the estimate of the national income of New Zealand is for the fiscal year ended March 31, 1938, the foreign trade figures for that country are those of the calendar year 1937.

other purposes, the percentage of exports to national income will be emphasized, since they must be paid for from abroad and are therefore a part of the income produced. A combination of the two indicates the total transactions involved but is less significant than its two parts.

There appear again some of the features noted in the preceding ways of assessing the importance of foreign trade. Small countries with specialized economies, Denmark, New Zealand, and Norway, for example, show the high percentages. The United States

with its large area and a highly diversified economy shows the lowest.

OTHER CONSIDERATIONS

These different statistical approaches suggest several preliminary conclusions. There seems to be an inverse relationship between the size of a country and the value of its foreign trade per unit of area and per capita. The largest amounts are those of small countries. Also they are countries of dense population. Yet there are exceptions. Japan and Italy have over \$2,000 of foreign trade per square kilometer but the per capita figures are low. The three largest countries in area — Canada, the United States, and the Union of Soviet Socialist Republics — have the smallest foreign trade per square kilometer and the second and third of these have the smallest amounts per capita.

That there should ordinarily be an inverse relationship between size and foreign trade is to be expected. A large area is apt to contain a variety of natural resources and of industries and consequently is less dependent than a similar smaller area with less variety. Then, too, much of the domestic trade within a large area such as the United States would become foreign trade if each of the forty-eight states should become an independent country. To its present foreign trade would be added its trade with the other forty-seven states which is now classed as domestic. Similarly, much of the present foreign trade of Europe would become domestic if the many countries there were combined into one. In 1938 the foreign trade of Europe (including the Union of Soviet Socialist Republics, the United Kingdom, and Ireland) was as follows (in billions of new United States gold dollars):⁶

	<i>Imports</i>	<i>Exports</i>
Total trade	13.90	10.69
Intratrade	7.37	6.96
Trade with the outside world	6.53	3.73

Another consideration is the national income per capita. Italy and Japan are illustrations. Each of these has a low per capita income. Worded differently, the productivity per capita is low. There is consequently less available per capita to sell abroad and with which to buy from abroad. If a generalization may be hazarded it is that *foreign trade tends to vary inversely with area and directly with per capita incomes and with the degree of industrialization.*

⁶ *Europe's Trade*, Geneva, The League of Nations, 1941, p. 17.

But the analysis should be carried farther. The amount of foreign trade may be of more or of less significance than the figures just given suggest. First the imports may be examined. In 1938, the total foreign trade of the United States was \$22.50 per capita. Of this the imports were \$8.75 per capita, a figure which, taken by itself, does not seem impressive. If, however, certain items in the list of imports are noticed, we may reach a different conclusion. One such item is rubber. The value of rubber imports in 1937 was \$237,307,000, which is less than \$2.00 per capita. Yet the shutting off of those imports in 1942 was a major catastrophe because so much of American life, particularly the use of automotive vehicles, is dependent upon rubber. This is but one illustration to which many others could be added. Among them are raw silk, tungsten, manganese, coffee, sugar, and cocoa. It is clearly not sufficient to judge importance by noticing only the amount of total imports or of particular imports per capita, per square kilometer, or as a percentage of the national income. Such statements may within broad limits be helpful, but there are many commodities which seem insignificant when measured in such ways which are vital or key items in modern life, as tungsten in the manufacture of steel, or as coffee because we have become so accustomed to its use.

Particular exports too have special importance. The total commodity exports of the United States in 1938 were only \$13.25 per capita, but in the period 1937-39 the annual average for exports of raw cotton was \$280,100,000, or about \$2.00 per capita. In 1935, nearly 60 per cent of the United States production of raw cotton was sold abroad and in 1933, only five years earlier, the percentage exported had been 65.6. In 1935, the following percentages of total production of certain commodities were exported: tobacco 25.6; sulphur 25.3; natural phosphates 34.9; and lubricating oils 29.7. These illustrations are sufficient to show that dependence upon foreign sources of supply or upon foreign markets should be appraised by examining the composition of foreign trade in its relation to the entire national economy.

This may be elaborated by calling attention to the concentration of certain productive activities. Thus, raw cotton is raised in the southern part of the United States. A loss or even a moderate reduction in foreign sales of raw cotton falls with special severity on this region and with more serious effects than if the reduction were spread evenly over the entire country. Moreover, a general depres-

sion in this huge area has greater repercussions upon the rest of the United States than if the direct or immediate losses were more widely scattered. The same is true, for example, of a center like Detroit which has depended so heavily upon imports of natural rubber.

But if the effects of a loss of foreign trade were spread evenly the nature of our modern economy is such that even so small a percentage as 6 per cent is of greater significance than some may think. In our times a larger and larger part of production depends upon heavy capital investment. Wherever this is the case the costs known as "overhead" are to be considered. "Overhead" costs are those which persist unchanged, no matter how large or how small the output. Under these conditions each producer is heavily dependent upon even small amounts of business. A slight increase or a slight decrease in sales spells the difference between financial success and financial failure. A loss of even so little as 6 per cent may take him out of the "black" and put him in the "red." In another chapter more will be said about the bewildering nature of costs and only a few considerations will be mentioned here. One is that costs may be classified as direct or variable and as indirect or overhead. Direct or variable costs fluctuate directly with the volume of business done, two of the items being raw materials used and ordinary labor employed. Indirect or overhead costs persist no matter how large or small the amount of business, illustrations being interest on bonds or mortgage and salaries of those employees who must be retained even though a plant is operating at only a small fraction of its total capacity. It is not always easy to classify a particular expense under one of these headings rather than the other, but the general distinction should be clear. In this chapter it is enough to observe that when indirect or overhead costs are a high percentage of the total, competition for orders is intensified and a slight increase or decrease in them may make the difference between "profit" and "loss."

CHAPTER 17

SOME INFLUENCES AFFECTING WORLD TRADE

Even if it be said that trade across national boundary lines is important, there is no easy way of measuring "importance." Certain relationships can be traced between areas, numbers of people, income levels, and the value (or quantum) of trade between countries. It is possible also to notice that the production of many articles as now carried on is dependent upon various materials that are imported from abroad. Similar emphasis may be placed on many consumption goods to the use of which people have become accustomed, on coffee and bananas, for instance, which are a significant part of diet in the United States but could be produced there only at a cost so high that it seems sensible to import them from other countries where costs of production are so much lower. Also, there has been noticed a close correlation between exports, imports, and national incomes.

But merely to notice these facts and relationships is not to explain them. There is still left the why and the how of international trade. Only after a lengthy consideration of why foreign trade is carried on and of leading practices both private and public, can the present situation be made clear. Then and only then can anything helpful be said about public policies and current movements.

WHY ARE GOODS EXCHANGED?

A start may be made by reviewing the reasons for exchange of goods and services — reasons with which most readers of these pages are familiar but which may readily be overlooked among the complexities of great world events. Adam Smith in *An Inquiry into the Nature and Causes of the Wealth of Nations* published in 1776 gave the classic presentation of the basic issues by describing the process of pin-making:¹

¹ Book I, chap. I.

One man draws out the wire, another straightens it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head; to make the head requires two or three distinct operations; to put it on is a peculiar business; to whiten the pins is another; it is even a trade by itself to put them into the paper; and the important business of making a pin is, in this manner, divided into about eighteen distinct operations, which, in some manufactories, are all performed by distinct hands, though in some others the same man will sometimes perform two or three of them.

By this division of labor the productive power of workers is greatly increased. Each acquires a special skill in his own part of the work and the result is a larger volume of product of a higher quality than if the task were not thus divided. By division of labor, each producing some one article or perhaps a minute fraction of the article and by then exchanging the resulting output, the aggregate of production is greatly enlarged.

From this description of individual division of labor, it is easy to pass to geographical division or specialization. For numerous reasons one area may be better than another for producing steel or collars or coffee or silk. Cost advantages (absolute or comparative) differ from one region to another. It is cheaper for the people of New England to produce along lines in which they have an advantage and exchange their output for, say, coffee and bananas, which are produced more cheaply in other areas, than to produce coffee and bananas at home.

FOREIGN TRADE AND NATIONAL INCOME

In later chapters these ideas and some of their complexities will be considered more fully. Here we may sketch in broad outline some of the major aspects which are often overlooked. First to be noted is the relation of foreign trade to national income. The fluctuations in the world supply and use of dollars has been shown in Figure 23 (page 246), in which it will be noticed that the economic transactions between the United States and the rest of the world fell sharply after 1929. This suggests at once a relationship between the national income of the United States and the volume of transactions.

How close this is may be observed from Figure 24. On the left side of the figure are two sets of curves. The upper section gives an index number in dollar values and shows how imports into the United States fluctuated directly with national income in the years

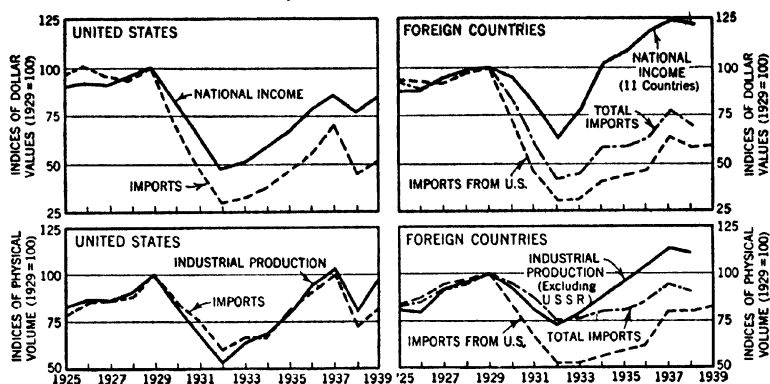


FIGURE 24. Indices of economic activity and international trade. (From *The United States in the World Economy*, Washington, United States Bureau of Foreign and Domestic Commerce, 1943)

from 1925 to 1939. The lower section relates an index of physical volume of imports to an index of the physical volume of production. When national income declined after 1929 the value of imports also declined, and when the national income rose after 1932 the value of imports changed correspondingly. The relationship is striking. It is even closer when the index of the physical volume of imports is compared with the physical volume of industrial production. Imports into the United States vary directly with national income, since the latter is an expression of buying power. That this buying power fluctuates with industrial production is to be explained by noting that many imports are in the form of raw materials demanded in larger quantities when production is active and by the resulting increase in the ability to purchase consumption goods from abroad when the consumer has the purchasing power.

On the right side of the figure there is shown the combined imports of eleven foreign countries expressed with similar curves. While the correspondence between national incomes and imports (upper section) and industrial production and imports (lower section) is not so close as for the United States, the relation is clear. Also, it will be observed that the curves indicate how not only the total imports of these countries but particularly their imports from the United States vary with their own incomes and industrial production. Viewed from any one country, the United States, for instance, the implications are clear. Economic activity in any country is

closely connected with that in other countries. "Prosperity is indivisible." When national income rises, particularly as reflected in an advance of industrial production, both imports and exports increase. To decide which is cause and which is effect is as difficult as to answer the old query about the hen and the egg. It may be noted, however, that the exports of any country (visible and invisible) must be paid for in some way by outsiders even though the payment is some kind of promise and that exports are a part of "income produced." On the other hand, imports (visible and invisible) must be paid for by the country receiving them and hence are a part of "income paid out." "Income produced" and "income paid out" are terms applied to different ways of calculating national income. The two tend to be the same although there are periods during which one may be greater than the other.

EXPORTS FOR THE SAKE OF IMPORTS

If the people of any area, national or local, use materials and labor to produce, for example, bananas or steel rails, which are then shipped out of that area, it is clear that the producers have engaged in an effort whose benefits in the form of goods are enjoyed by the outsiders who receive those goods and consume them. On the other hand, any goods imported are the result of efforts by people in outside areas who have used their materials and labor to produce something enjoyed by consumers in the importing area.

The Terms of Trade. This at once suggests that imports should be welcomed and exports regretted unless the exchange of the one for the other brings into the importing area goods that are worth the sacrifice involved in producing the exports. Also the "terms of trade" are worth noticing. For example: x bales of raw cotton are exported by country A, in return for which y bunches of bananas are received as imports from country B. If, for some reason, country A is compelled to export $x + 1$ bales of cotton for y bunches of bananas, the "terms of trade" have become less favorable for A and more favorable for B.

A "Favorable" Balance of Trade. This seems clear but the usual reaction is to look with favor upon any increase in exports and with disfavor upon an increase in imports. In fact, it is customary to refer to an excess of exports over imports as a "favorable" balance of trade and an excess of imports over exports as an "unfavorable" balance. If such words carried no implication as to "desirability"

or the reverse their use would be unimportant, but such is not the case. The word "favorable" carries with it the idea of approval.

The reasons for what seems to be a curious attitude are several. One is the fact that there was a time when an excess of exports had distinct advantages for some countries. For several centuries, but particularly during the seventeenth century, a number of ideas were developed to which was applied the general term Mercantilism. The period was one of "state-making." A dominant urge was to strengthen the state. Standing armies grew. A money economy as distinct from a barter economy was spreading. Gold and silver or "treasure" were desired. The precious metals were not perishable, the development of the wage system was possible only if a generally acceptable "means of payment" was available. European countries did not have gold and silver mines and the precious metals could be secured from abroad only if the value of commodities produced and exported exceeded the value of the imported commodities. The approval given to an excess of exports over imports and the characterization of such an excess as "favorable" had a real basis in the conditions of the period.

Such attitudes are apt to persist in our thinking and the continued use of the term "favorable" has emphasized the idea that such a balance is desirable. However it would probably have weakened had it not been for another and more fundamental reason. In an economy of specialization and exchange money of some kind has an important role. The interests of each producer are concentrated on one or at most on a few lines of effort. What he produces, shoes or legal services, for instance, he sells to others receiving money in return. His economic success can be most easily expressed in terms of money. Expenditures of money for what he wishes to consume cannot be avoided, but are to be regretted and only the amount actually necessary should be paid. The psychological attitude is one of emphasis on the importance of money received.

Worded a little differently it may be said that the interests of all of us are concentrated on the production and sale of a single product or a few products. As consumers our interests are widely diffused. The art of production has been highly developed while the art of consumption has been largely neglected. Also with the enhanced importance of capital each producer finds that many of his costs tend to persist. Interest on funds borrowed on mortgage security or with bond issues or bank loans must be paid regularly and pro-

vision made for payment of principal sums at maturity. Capital equipment deteriorates even when not in use and obsolescence as distinct from physical depreciation is increasingly rapid as the years pass. Unless the sale price of the product per unit is high or unless the capital equipment is used at or near full capacity losses are incurred. If "overhead" expenses are, say, 60 or 70 per cent of the total, only a moderate decline in operations will result in an excess of current expenditures over receipts and perhaps will bring bankruptcy. On the other hand, only a moderate increase in sales will mean an excess of receipts. Under such conditions there is either intense competition for business at home or abroad or a tendency to find a way of coming to some kind of an agreement with competitors.

Relief cannot readily be found by shifting to some other line of production. A particular owner or enterpriser may withdraw because of bankruptcy or by selling his property. But this does not mean that society has avoided the issue. The efforts of past labor and saving have been embodied in capital equipment, and withdrawal can be accomplished only by neglecting the upkeep of existing properties and using funds thus made available to construct another kind of plant. This minimizes the loss but does not eliminate it entirely. Faced with these difficulties business men are eager for additional sales which will bring them more "money" and seek to minimize the amounts they must pay out which mean a loss of "money." This is nothing new, but modern conditions of production increase its significance.

An Active vs. a Passive Balance. In an earlier chapter, it was pointed out that an excess of imports may under some circumstances be desirable while under others an excess of exports may be better. Not always is an excess of exports to be characterized as really "favorable" except in the technical sense. Accordingly it has been suggested that when exports are the larger the balance should be called "active" and when imports are the larger it should be called "passive." This is an improvement in terminology, but there is still a tendency to look with approval on anything that is "active" and with at least a slight disapproval upon anything that is "passive."

By-products. Still other complications must be mentioned although briefly. One is that many industries manufacture not one article, but several or perhaps many. Most farmers raise not one but several

grains and vegetables and fruits. A manufacturer may confine himself to one line of output, but often does not. A packing house slaughters cattle, sheep, and hogs and from the carcasses there comes a bewildering variety of meats and also oleomargarine, fertilizer, buttons, and so on. By-products are numerous. Each producer may wish to have his selling price for any one of these by-products correspond as closely as possible to the cost of making it. Some of the costs, viz., the direct costs, are easy to assign but the indirect or overhead costs are another matter. If there is a mortgage on the stockyards how much of the interest on that indebtedness may properly be charged to the oleomargarine and how much to the glue? While for accounting purposes an allocation can be and is made this allocation is of necessity quite arbitrary and any statement of the "cost" of producing a given by-product must be accepted as perhaps helpful but certainly not as logical or conclusive. With no logical way of apportioning overhead, the cost assigned to a given product and the price charged for it are certain to be influenced by the desire to maximize sales.

With the resulting tendency for competition to increase in its intensity, competitors find it easy to "co-operate" in various ways, especially if they are few in number. Hence the "trusts" and what are usually called "cartels" if the agreements are among competitors of different nationalities. To dismiss such combinations whether domestic or world-wide as merely expressions of the cupidity of the parties involved is superficial.

ECONOMICS AND GOVERNMENT

For years "political economy" was the title of the field of study which later became known as "economics." Recently there has been much criticism of the shorter name and there seems to be a tendency to return to the longer one. The advantages of specialization among scholars helps to explain the narrowing of the field but one of the results was at times the view, usually implicit, that economic issues can be studied by themselves, in a sort of vacuum unrelated to politics and to other aspects of life.

The Decline of Laissez-faire. There is no occasion here to debate the issues raised but it can be noted that the modern trend is away from nonintervention by government. Laissez-faire has declined. Government ownership and operation and government controls have grown and are continuing to expand. Notice the increase

within any one country, for example, the United States or to a much greater degree in the Soviet Union. Also notice the implications in connection with the points raised in this chapter. For almost countless reasons government is playing a larger part in our lives. So long as the emphasis was on laissez-faire, on the idea that "that government is best which governs least," certain economic ideas had a considerable validity. Each business man conducted his own affairs with a minimum of social control. There was at least a tendency for him to use natural resources, labor, and capital equipment in the ways that offered a prospect of the greatest profits. Those who had land to rent or capital funds to lend would seek the highest returns and laborers would work where the highest wages were offered. This "system" was far from perfect but it seemed reasonable to assume it as a starting point in analysis. Market demand was an expression of desires for goods accompanied by purchasing power and prices were offered that guided production into channels that fitted in with what society wanted. There was an "allocation of resources" that was "automatic" and resulted in a production that could be approved as an expression of human desires and perhaps even of needs.

Such an "allocation of resources" was never without some social controls. To go no further back in United States history than say 1816, we may notice that there was passed in that year the first clearly protective tariff legislation. It was decided that at least a part of the national income should be consciously diverted to aid the manufacturers of textiles whose foreign competitors were to some extent kept out of the domestic market. The general American public gave up some of its income through higher prices for textiles because of a real or perhaps imagined social or national advantage.

Other and similar "allocations of the national income" have been made, only a few of which may be mentioned as illustrations. Among them were the land grants to the railroads from 1830 to 1871; the Homestead Act of 1862; the protective tariff legislation of 1818, 1824, 1828, and later; subsidies direct and indirect (through mail contracts) to the merchant marine and later to the air lines; to which may be added the miscellaneous forms of aid to many groups of producers subsequent to 1929. In the United States the emphasis in thought and in practice is on the whole still placed on "freedom of enterprise" but there has been a growth in the "allocation of the national income" with a view to meeting what is conceived to be

the national advantage or the advantage of particular groups. Social security legislation as presented through the Beveridge Plan in Great Britain, designed to care for beneficiaries "from the cradle to the grave," and comparable trends in the United States, are further signs.

The Unification of National Economies. This is but a brief sketch. For the broader field of world economics it is highly significant. Social controls over economic activities have been growing and are continuing to grow. There may be added a brief reference to the development of separate money and banking systems, with central banks exercising or trying to exercise growing control over gold movements, interest rates, and even the direction of investments; separate tax systems which may and at times really do discriminate against the foreigner but which in any case are usually different from those in other countries; special laws governing working hours and conditions of employment, particularly for women and children; and many other acts of legislation.

In the aggregate the effect of all this is to unify each national economy. In a world where world-wide dependence has been increasing, there has developed a partial insulation of each national economy against the others and often in opposition to them. There is thus created a difficult dilemma with which the world is now struggling. Unless and until we can learn how to organize and operate a world political organization, each existing state must and will assume responsibility for the economic welfare of its own people. Often, though of course not always, the measures taken will be injurious to others. It will not do to rely blindly on the guidance of some "invisible hand" to harmonize these conflicting interests. What is at times called "international co-operation" is inadequate.

Conflicts of National Interest. In the history of economic thought writers usually give attention to the Optimists,² among whom were Henry C. Carey (American) and Frederic Bastiat (French), who expressed particularly the "liberal" reliance upon laissez-faire and natural laws, with at least an implication of "a belief in a Providential order."³ Modern economic thought has gone a long distance from this position. We no longer blindly trust "economic harmonies" and "natural laws" and the "invisible hand" in domestic economic affairs but there still lingers in our minds the idea that in some

² See, for example, Gide, Charles, and Rist, Charles, *A History of Economic Doctrines*, New York, 1913, Book III, chap. I.

³ *Ibid.*, p. 331.

way national economies, each acting in its own interest, will work together for the good of all. Within each country there are laws that govern business practice or controls by governments over many lines of organization and operation with a very considerable advance in government ownership and operation. In a subsequent chapter we shall discuss the development of world cartels which are numerous and are organized and operated for the most part with only a moderate amount of governmental participation. Yet the tendency is still to place fewer restrictions on business conduct in foreign trade than in domestic. The extent to which governments participate is increasing, and in a growing number of instances the agreements are now between the governments themselves.

National Overhead. The expressions "direct or variable cost" and "indirect or overhead cost" are useful but may be misleading. They mean, and correctly enough, that a particular business enterpriser may reduce his direct costs when he does not have enough orders to permit plant operation at capacity. He may discharge workers and thus reduce his wage payments. He may buy raw materials in smaller volume and in various other ways reduce expenses. His expenditures have been lowered.

But the social cost has not similarly been altered. Unless the discharged workers actually perish they and their families continue to eat food, wear clothing, and consume fuel although usually in smaller amounts. Society has not lost the cost of their support. Their outlays may be financed from their past "savings" or from public or private relief. What has seemed to be a "variable" cost fluctuating with the volume of business is not socially so much of a variable but is very persistent, and with the growth of social insurance against unemployment is increasingly recognized as an expense to be provided for by each business in a regular manner or cared for in some other way by society.

As economic life is socialized these costs that continue during depressions as well as in periods of prosperity are brought into the open. To the extent that governments own and operate business or control business or to the extent that social insurance is provided this is being recognized. Socially viewed, most costs persist in some form whether carried by private business enterprises or in some other manner.

National By-products. Another difficulty mentioned before and said to be impossible of logical solution is the allocation of "over-

head" among by-products. But let us suppose that the economy of a country is owned and operated entirely by the government. Instead of a myriad of separate enterprises some of which turn out a considerable number of by-products we have a single national enterprise and all of the thousands of articles produced within the country are by-products of this great concern. Since most costs are under such conditions recognized as persistent or "overhead," the total costs fluctuate but little. Since all productive activities are merely parts of a single business enterprise and all products are by-products, the task of a proper allocation of this vast social overhead cost is enormously more intricate.

This may seem an exaggeration and possibly fantastic. Far from it. Even in a highly individualistic society such as that of the United States the levying of taxes, the control by central banks over discount rates, the construction of public works, legislation affecting hours of labor and wages, pure food laws, and other acts of legislation greatly affect costs and their distribution. As government or social control increases, this influence over costs and over the direction of productive activity increases. Another illustration which will be more fully developed later is the open or perhaps concealed subsidization of exports.

This means that there is in each country a great overhead cost to be allocated in some way among the myriad products. As with private business there may be devised an accounting system which will be helpful. But what may be called a logical allocation is still not possible. A central planning board may have the most intelligent and conscientious personnel available but its decisions, if not arbitrary, will be influenced if not determined by group pressures, by the hope of national advantage, and by other considerations. As has been found, perhaps especially in German procedures, the national income is viewed as a total to be apportioned in ways that make for a real or fancied national gain.

CHAPTER 18

PAST AND POSSIBLE FUTURE OF WORLD TRADE

World trade has been highly irregular in "value." Fluctuations in "quantum" have been less but even these physical units have changed considerably from year to year. Dependence on foreign trade is considerable, no matter how expressed, although this dependence varies in its nature and in degree from country to country.

Even before the Second World War ended there was extensive discussion of the possible future of trade between countries and regions. The two preceding chapters have made it clear that there were gains for a number of years preceding 1929 and that the decline thereafter while considerable in value was much less in quantum. Nevertheless there are many who believe that we may not see a continuance of this growth at the same rate as in the past. The reasons given are primarily two. One is that there are rapid advances in agricultural technology that are tending to narrow and that may perhaps even eliminate the cost advantages of some regions over others where costs have been higher. The other reason is that many countries that formerly imported manufactured goods have become industrialized and that this change will probably be accelerated in the years just ahead. As the newer countries engage more in manufacturing they may rely less on foreign products. These contentions should be examined but their analysis will be aided by a more extensive examination of past trends.

INTERNATIONAL TRADE IN THE PAST

In Table 31 (page 253) the fluctuations were given for only twenty-five years and were perhaps inadequate. Nevertheless, they should be kept in mind. Both values and quantum are significant, the choice between them depending on the purpose for which they are being used. It will be remembered that from 1924 to 1929 quantum increased over 30 per cent; that in subsequent years the quantum went only slightly below that of 1924; and that by 1937 it

had risen to 96.5 (1929 = 100). During this period, moreover, trade was disturbed by the depressing influence of lower and fluctuating prices and by a rapid growth in restrictions to which more attention will be given in a later chapter.

An examination of trends over a longer period shows how much trade between countries had gained.¹ Japan's imports increased forty-two times and her exports sixty-five times from 1873 to 1937. From 1775 to 1929 the exports of the United Kingdom increased sixty-nine fold and imports more than seventy fold. In 1929, the value of imports into the United States was twenty-five times as large as in 1850 and her exports showed a thirty-six fold increase. Germany's imports increased almost four fold from 1880 to 1913 and her exports increased four-and-a-half times.

Relation between Imports and Exports. There has been a rapid growth in foreign trade. The next step is to notice the relation between imports and exports. Since the imports of one country are the exports of other countries, such a connection is to be expected but a few illustrations will give it emphasis. Several figures are accordingly presented in the Appendix (Figures 6, 7, and 8), the countries chosen being the United Kingdom, the United States, and Japan. In the case of Japan both values and quantum are given. All of these figures show (1) a very rapid rise in both imports and exports, and (2) an impressive parallel in imports and exports, their fluctuations being closely synchronized. There is a close relationship between them.

Foreign Trade and National Income. Next is the connection already mentioned between imports and national income. It has been shown in Figure 24 (page 268) for the United States and for eleven foreign countries combined. In the same figure the similar relation between imports and industrial production is illustrated. The three relations fluctuate together. Tentatively, at least, we may say that a rise in industrial production in the United States is a sign of or the form of an enlarged national income and that this enlarged production calls for increased imports. These imports are in part raw materials for use in factories and in part consumption goods that can be purchased because of the higher incomes.

In Chapter 16 it was pointed out that Europe (including non-Continental Europe, which is chiefly the United Kingdom) and

¹ These illustrations are from Staley, Eugene, *World Economic Development*, Montreal, International Labour Office, 1944, pp. 119 ff.

North America account for 64.9 per cent of world imports and 68 per cent of world exports. Most of the countries in this group may be classed as industrialized, but another grouping, which includes only the industrialized countries of Continental Europe, the United Kingdom, the United States, and Japan, shows that these accounted in 1938 for 89 per cent of goods bought or sold abroad, all of the remaining areas accounting for only 11 per cent of the world total.²

Some of the implications of these relations are made clear by examining Table 36, which gives for seven regions the percentage distribution of area, population, and foreign trade in 1938.

TABLE 36
PERCENTAGE DISTRIBUTION OF THE AREA, THE POPULATION, AND THE FOREIGN TRADE OF THE WORLD (1938)
(In percentages of totals)

<i>Regions</i>	<i>Area</i>	<i>Population</i>	<i>Foreign trade</i>
Europe, excluding the U.S.S.R.	4	19	51
U.S.S.R.	16	8	1
Asia, excluding the U.S.S.R.	20	53	15
Africa	23	7	7
North America	15	7	14
Latin America	16	6	9
Oceania	6	.5	.3
Total	100	100	100

SOURCE: *Europe's Trade*, Geneva, The League of Nations, 1941; compiled from Diagram 1, p. 9.

Attention has previously been drawn to the dominance of Europe and the United States in world import and export trade. This table also is in percentages but combines imports and exports and compares this total of foreign trade with area and population. Europe with only 4 per cent of the area and only 19 per cent of the population carries on 51 per cent of the foreign trade. Asia (excluding the Soviet Union) has 20 per cent of the area and 53 per cent of the population, but only 15 per cent of the trade. As previously pointed out, the amount of trade tends to vary inversely with area and directly with per capita incomes and with the degree of industrialization. The population of Europe (excluding the Soviet Union) is only 36 per cent that of Asia, but Asia's trade is only about 30 per cent that of Europe.

² *The Network of World Trade*, Geneva, The League of Nations, 1942, p. 7.

Another enlightening approach is through an examination of the direction of Europe's merchandise imports and exports as given in Table 37.

TABLE 37
DIRECTION OF EUROPE'S MERCHANDISE IMPORTS AND EXPORTS (1938)
(In percentages of totals)

<i>Regions</i>	<i>Imports</i>	<i>Exports</i>
Africa	7	9
Northern North America and the United States	15	7
Latin America	10	7
Asia	10	9
U.S.S.R.	2	1
Europe	51	64
Oceania	5	3
Total	100	100

SOURCE: *The Network of World Trade*, Geneva, The League of Nations, 1942; adapted from Table 37, p. 67, and Table 38, p. 68.

The foreign trade of European countries was dominantly an east and west trade with countries in the Northern Hemisphere rather than with countries in the Southern Hemisphere. Imports from Africa, Latin America, and Oceania were only 22 per cent of the total and exports to those areas only 19 per cent of the total and in the percentages for Latin America was trade with Mexico, Central America, and so forth, which are in the Northern Hemisphere. Also 51 per cent of the imports and 64 per cent of the exports were intra-European.

Another illustration is to be found in the merchandise trade of the United States as presented in Table 38.

TABLE 38
DIRECTION OF UNITED STATES MERCHANDISE
IMPORTS AND EXPORTS (1938)
(In percentages of totals)

<i>Regions</i>	<i>Imports</i>	<i>Exports</i>
Europe	28	42
Canada and Newfoundland	15	16
Latin America	26	18
Asia	27	16
Australia, New Zealand, and South Africa	2	5
Rest of the world	2	3
Total	100	100

SOURCE: *The Network of World Trade*, Geneva, The League of Nations, 1942; adapted from p. 52.

Again it is noticeable that the trade is chiefly within the Northern Hemisphere. From Europe, Canada, Newfoundland, and Asia come 70 per cent of the imports and to those areas go 74 per cent of the exports and, as with the trade of Europe, the Latin American percentages include trade with Mexico, Central America, and so on.

Bilateral Trade. In recent years there has been a tendency to emphasize bilateral trade, that is, to encourage a balancing of imports and exports between two countries by means of agreements entered into for that purpose. That such a development tends to restrict the total amount of trade seems so clear as to need little more than a brief reference. If country A is to import from country B only an amount that is equivalent to what it exports to that same country, the advantages of international specializations are sharply reduced.

Triangular Trade. Students are familiar with the triangular trade of colonial days involving the shipment to Africa of rum and other articles from Boston, Newport, and elsewhere; the exchange in Africa of this rum for slaves; and the exchange of the slaves in the West Indies for molasses and sugar to be sold in New England. No matter how we may revolt at traffic in slaves (and perhaps in rum), it can at once be seen that the aggregate of the trade was greater than it would have been had there been only such trade as could have been carried on between any two of them without the third. In the years 1937 and 1938, Nicaragua had an export balance to Germany. Germany in turn had an export balance in trade with the United Kingdom, while the United Kingdom sent more to Nicaragua than she imported from that country.

Multilateral Trade. International trade is, however, so extensive and complicated that it should be thought of as multilateral. This may be illustrated by examining the data for almost any year and for any country. Thus Brazil, in 1928, had merchandise exports valued at \$803,000,000 and imports worth \$747,000,000. Over 45 per cent of her exports (\$365,000,000) went to the United States, but her imports from that country were worth only \$199,000,000, with the difference of \$548,000,000 coming from other countries, especially the United Kingdom (\$161,000,000); Continental Europe (\$262,000,000); and other Latin American countries (\$109,000,000). Similar complex relationships may be traced for any other country. Freedom to use elsewhere the dollars received for exports to the United States permitted Brazil to purchase a greater variety of

merchandise and to greater advantage than if all these dollars had been spent in the United States, or in the United States and some other one region under a triangular relationship.

In 1938, the aggregate value of world trade was only about 41 per cent of that in 1928, and in the interval there had been introduced numerous bilateral agreements, quotas, and exchange controls. Yet the complexities of international trade persisted; they are shown for 1938 in Figure 25.

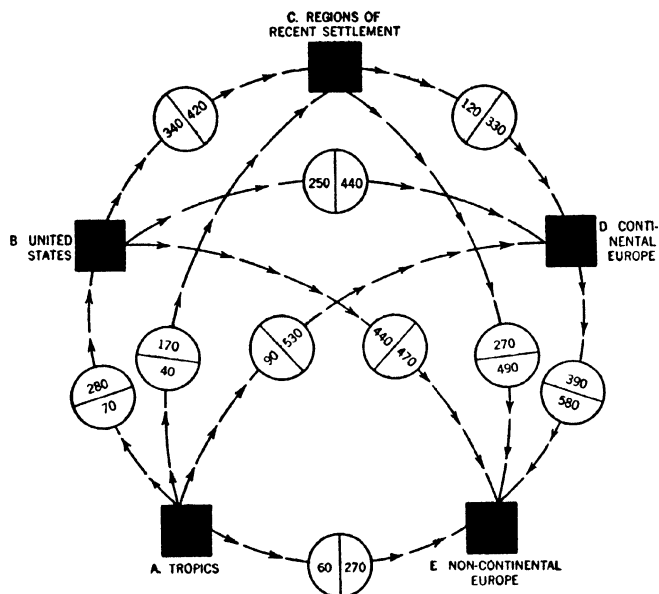


FIGURE 25. The system of multilateral trade, as reflected by the orientation of balances of merchandise trade in 1938. (From *The Network of World Trade*, Geneva, The League of Nations, 1942)

The balances are given in millions of dollars. There are five regions shown in the figure. One — the United States — may be explained. There are lines from the United States to each of the other four regions. The figures shown in each case are not totals but are balances with the indicated region. The smaller of the two figures in each of the circles is the export balance of the region from which the arrows emerge, and the larger is the import balance of the group toward which the arrows point. No attempt should be made to reconcile the differences, since there are numerous reasons why the totals will not agree. The figure merely illustrates the complexities of world trade, which is multilateral in character.

With the same general purpose, there may now be tabulated the data for the United States. Table 39 indicates the vast area with

TABLE 39

MERCHANDISE TRADE BALANCE OF THE UNITED STATES IN 1938
BY REGIONS

(In millions of dollars)

<i>Trade with</i>	<i>Imports</i>	<i>Exports</i>	<i>Balance</i>
Tropics	940	660	- 280
Regions of recent settlement	390	730	+ 340
Continental Europe	500	750	+ 250
Non-Continental Europe	110	550	+ 440
Rest of the world	250	420	+ 170
Total	2,190	3,110	+ 920

SOURCE: *The Network of World Trade*, Geneva, The League of Nations, 1942, p. 90.

which the foreign trade of the United States was carried on and if this trade were broken down by countries its multilateral nature would be still more evident than when given by regions. A similar complex trade relationship could be shown for any other country. Yet changes are occurring and others may come. Before attempting an explanation there should be noticed certain alterations in the trade of the United Kingdom. They are given in Table 40, which lists in millions of pounds sterling the exports to three groups of countries for designated years beginning with 1860. To allow for changes in price, the amounts have been adjusted to the price level of 1913.

TABLE 40

BRITISH EXPORTS (UNITED KINGDOM PRODUCE) REVALUED
AT 1913 PRICES

(In millions of pounds sterling)

	1860	1873	1913	1929	1937
(a) To Germany, France, Belgium, and the United States	42	78	117	86	64
(b) To Latin America and the British Empire	57	83	191	234	200
(c) To all destinations	136	234	525	470	392

SOURCE: BROWN, A. J., *Industrialization and Trade*, London and New York, Oxford University Press, 1943, p. 60.

The gains in exports to the four industrialized countries was pronounced until 1913 but the amounts have declined since that date by about 26 per cent (1929) and 45 per cent (1937). But exports to Latin America and the British Empire, though they declined after 1929, fell but slightly and in 1937 were still larger than in 1913. The matured industrialization of the countries in the first group may have been the cause of their reduced demand for British goods

which they had become able to produce for themselves. Another though related explanation may be that the British had failed to adapt their production to rapidly changing conditions. As industrialization advanced, other countries began to produce commodities formerly imported from the United Kingdom but they might have continued or even increased their imports from that country if the British could have shifted to other lines of specialization. Also, it should be kept in mind that their dominant position in trade was attained in the nineteenth century and that they depended largely on raw materials from distant parts of the world with the costs that such importation involves.

There is, in fact, much to support the statement of Alfred Marshall in 1908:

England will not be able to hold her own against other nations by the mere sedulous practice of familiar processes. These are being reduced by such mechanical routine by her own, and still more by American ingenuity, that an Englishman's labour in them will not continue long to count for very much more than that of an equally energetic man of a more backward race. Of course, the Englishman has access to relatively larger and cheaper stores of capital than any one else. But his advantage in this respect has diminished, is diminishing; and is not to be reckoned on as a very important element in the future.

To what Marshall said in the early years of the century about technical developments elsewhere and about the availability of capital, should be added a reference to the advantages of early industrialization, and the extent to which the balance of international payments of the United Kingdom has been dependent upon "invisible" or service items. These were given in Table 28 (page 214) and for 1938 the income from those sources amounted to £322,000,000, which was almost enough to pay for the excess of merchandise imports. A small excess of credits for that year was secured by the export of £63,000,000 of gold. During the Second World War, there were heavy losses from the destruction of shipping and from disinvestment with consequent difficulties to which we shall return later.

HOW ABOUT THE FUTURE?

There have been marked increases in the field of world trade but with changes that have led some observers to argue that it will diminish in the years ahead. The influences at work are not all of

them on the one side or the other. All that an observer can do is to indicate the considerations and hazard a judgment as to the balance.

World Trade May Decline. This view is based on two major contentions. One is that dependence of some countries on imports of food may decline because of the remarkable advances in agricultural technology. The "law of diminishing returns" is still to be accepted as correct but it is observed that "the state of the arts" is constantly changing. Intensive cultivation and countless other developments make it possible for the people of any one country to rely more on local supplies of food. This may be furthered by keeping out imported food through the imposition of high import duties or by subsidizing local production. The cost of the food raised locally may be higher than it would have been otherwise, but with vast gains in the technique of production costs will be far lower. Thus larger supplies of food at lower costs will make it easier to depend upon local output than has been true in the past.

Related to this view is the similar one that advances in technology are reducing world interdependence on raw materials. The position of Chile, which was formerly the only source of natural nitrates, was weakened by the manufacture of artificial nitrates and that of Japan by the advance of rayon and other substitutes for silk.

This question has been raised by many observers, as, for example, in the following statement:³

At the same time, the forces making for regional self-sufficiency have been strengthened by the "second industrial revolution." Electrotechnical and chemical progress is reducing long-distance trade also in raw materials and even in foodstuffs. No one can deny that this development is highly profitable from the social point of view. It substitutes ubiquitous and unlimited elements of the inorganic world for the localized and scarce products of geological and biological evolution, and thus opens to mankind the true sources of material plenty. We can well envisage an economic era in which, for every well populated region, a high degree of autarchy may be more profitable than the carrying of merchandise from and to distant continents.

Conditions are rapidly changing. It may be that the developments of the nineteenth century were in some particulars related to the stage of industrial growth and organization of that period. The future may be quite different from the past.

³ Lowe, Adolph, *The Study of World Affairs*, an address delivered at the Inaugural Meeting of the Institute of World Affairs, November 17, 1943, p. 12.

The other contention is that industrialization is being extended to countries that formerly were agricultural. Developments in Russia are often referred to as an illustration. Low incomes in areas whose people are for the most part engaged in primary as distinct from secondary and tertiary occupations are emphasized as a reason for hastening the process of industrialization. Plans under discussion in the less developed parts of the world include the encouragement of manufacturing. Usually these plans contemplate heavy loans to hasten the change. As industrialization proceeds, areas which have exported large amounts of industrial products will face competition from these new plants which will supply their respective home markets, and world trade will diminish.

That this is not mere speculation but that some of these changes have occurred is evidenced by an examination of past trends. For decades, but particularly between the two world wars, agricultural areas have industrialized and industrial areas have increased their agricultural production.⁴ Because of these two tendencies it is argued that independence of each area will increase and trade between them will diminish.

World Trade May Increase. Those who argue that world trade may increase first point to the past as suggesting future trends. World trade has grown. It is largest between areas whose populations are numerous and especially those where levels of living are highest. Although it is possible or probable that population growth may be further retarded in many areas, there is no reason to anticipate any reduction in per capita incomes but every reason to hope for further advances. In other areas, for example, in India and in China, an increase in numbers may be expected for many years to come — an increase that may prevent a rise in per capita incomes. This influence, however, will be countered by an increased aggregate purchasing power simply because there are more people.

While the data given in Table 40 may suggest that there has been a diminution in British exports to the other large industrial areas, there has been less of a decline in British exports as a whole, and this reduction may perhaps be explained by difficulties peculiar to the United Kingdom through a failure to adjust her economy rapidly enough to a changing world market. Rapid response to increases in industrial production and in national income are shown by the

⁴ See Röpke, Wilhelm, *International Economic Disintegration*, London, Wm. Hodge & Co., and New York, The Macmillan Company, 1942.

experiences of the United States from 1919 to 1939. If production can be maintained at a high level, and if ways can be found to adapt each area's efforts more promptly to external as well as to internal conditions, there is no reason to expect a decline in the aggregate of imports and exports but to anticipate an increase.

Industrialization and Foreign Trade. The evidence is not all on one side but the probability seems to be that trade between countries and regions will not or need not diminish. The effects of increased industrialization in newer areas on the trade of the older ones may be presented as going through these four stages:⁵

1. First there will be an increase in exports because of the increased demand for tools and equipment.

2. As industrialization proceeds, the newer areas will experience a rise in national incomes as workers shift from primary to secondary and tertiary occupations. They may, however, for a time direct many of their demands to their own markets and may even buy less from the older regions, though the balance is not easy to anticipate. The nature of the demand may, however, shift somewhat from tools and equipment to other lines.

3. There may come a retardation in the growth of incomes in the newer regions. Replacements of plant and equipment, if not provided locally, may stimulate imports from the older regions.

4. As the full effects of industrialization are felt and incomes rise, the aggregate demand for foreign commodities may rise to indefinitely high levels.

The ultimate effects on world trade may be strongly on the side of expansion. Much depends on the ability of the older countries to recognize that the composition of trade will change. This, however, is fundamentally the same difficulty that is being faced by all producers not only for their foreign but for their domestic markets. Advances in technology and the shifting nature of demand is calling for more and more foresight and for swift adaptations.

Intensified Competition. Even if the long-range prospects are for an expansion rather than a diminution in the aggregate of world trade, there is no reason for complacency. Merely to refer to the changing composition of trade and to suitable adaptations does not bring the adjustments. Established industries will not readily give up their markets but will try to retain or expand them. Competition will be acute and perhaps bitter and ruthless. Two illustrations will make this clear.

⁵ See Brown, A. J., *Industrialization and Trade*, *op. cit.*, pp. 46-47.

The United Kingdom is one. In Table 28 in Chapter 13 (page 214) was given the balance of international payments of that country for 1929 and 1938. It showed an excess of imports of merchandise amounting to £381,000,000 in 1929 and to £377,000,000 in 1938. Commodity exports fell far short of paying for commodity imports, and in 1929 the gap was being more than filled by the various service items or "invisibles." But the net result was a debit balance in 1938, which was covered in that year by the exportation of gold.

During the Second World War, the "invisibles" have been sharply reduced. Overseas investments have greatly declined and future earnings from shipping are at least uncertain in amount. Responsible estimates are to the effect that merchandise exports must in the years ahead be approximately 50 or perhaps even 75 per cent over those of 1938, if imports of merchandise are to be paid for and other external obligations met. Otherwise, the level of living in the United Kingdom will decline. Moreover, this does not take into account the claims accumulated under lend-lease shipments nor the sums due to other parts of the world that are commonly referred to as "blocked sterling accounts," and which are said to amount to more than £3,000,000,000 (about \$12,000,000,000). Lend-lease obligations were eliminated in the fall of 1945 but the official British estimate is that \$4,500,000,000 of overseas investments have been sold or repatriated and external liabilities assumed amounting to \$13,525,000,000. Some of these new obligations may be adjusted, particularly those to India, Burma and Egypt, but to service the amounts remaining will place on the United Kingdom a heavy burden and result in a vigorous effort to increase exports.

The position of the United States (the other illustration) is different. Its credit position has been strengthened. Instead of "disinvesting," it has increased its claims on other countries and it has a greatly enlarged merchant marine. The national income rose during the war. Foreign trade has increased, especially exports if lend-lease shipments are included. The productive capacity of the country, even more than during the First World War, has become adjusted to large exports and this is true of agriculture as well as of industry. American business men will not find contraction or adjustment to domestic demands at all easy.

An attempt to look ahead has been made by the International Economics and Statistics Unit of the Bureau of Foreign and Domes-

tic Commerce of the United States.⁶ The assumptions of the study are clearly stated and should not be forgotten. The most important is that the domestic economy of the United States will function at capacity levels, which means a "potential capacity output of all goods and services amounting to 175 billion dollars⁷ in 1948, computed in 1942 prices." On the basis of this and other assumptions, the hypothetical figures for 1948 are imports (merchandise) in 1948 amounting to 6.3 billion dollars and "other payments to foreigners (for services and through the investment of American capital abroad)" of about 4 billion dollars. Exports (merchandise) are similarly estimated at about 7 billion dollars.

In the light of current discussion, but with the repeated reminder that the estimates are based upon the assumption of past trends and current conditions, the summary in Table 41 is of interest.

TABLE 41
A HYPOTHETICAL SEVEN BILLION DOLLAR EXPORT TRADE
FOR THE UNITED STATES
(Unit: one million dollars)

Commodity group	1929	1948	Per cent of change
	Actual exports	Hypothetical exports	
Animals and animal products, edible	244.2	128.1	- 48
Animals and animal products, inedible	117.5	120.1	+ 2
Vegetable food products and beverages	509.3	620.3	+ 22
Vegetable products, inedible, except fibers and wood	303.8	365.4	+ 20
Textiles	979.2	691.2	- 29
Wood and paper	210.2	217.7	+ 3
Nonmetallic minerals	739.7	1,032.2	+ 40
Metals and manufactures, except machinery and vehicles	538.4	1,085.8	+ 102
Machinery and vehicles	1,198.2	2,299.4	+ 92
Chemicals and related products	152.1	234.2	+ 54
Miscellaneous	164.3	205.6	+ 25
Grand total	5,157.0	7,000.0	+ 36

SOURCE: Maffry, August, and Lary, Hal B., *Foreign Trade After the War*, *op. cit.*, condensed from Table II.

There are several interesting features in this table. Some groups of commodities show decreases and some show increases. Among those showing a decrease, the most important in amount and in

⁶ Maffry, August, and Lary, Hal B., *Foreign Trade After the War*, Economic Series No. 28, Washington, Bureau of Foreign and Domestic Commerce, Department of Commerce, October, 1943.

⁷ This is "gross national product" and not "net national income."

its consequent influence on the total is "Textiles" and within that group the largest single item is "Cotton, unmanufactured." The other group showing a decline is "Animals and animal products, edible." All of the other groups show increases, the most important being "Nonmetallic minerals," "Metals and manufactures," and "machinery and vehicles."

THE MORE DISTANT FUTURE

It is to be expected that for years to come the dislocations in the field of foreign trade will be acute. During both the world wars of the twentieth century we have been impressed with the destruction of physical properties. But this destruction is not their most serious economic consequence. Much more important than destruction is the economic dislocation. Given a fair degree of political stability, rebuilding can be completed within a relatively few years. Much more difficult will be the loss of past markets, the new debtor-creditor relationship, and other changes in the relation of economic groups within countries and in the economic relations between countries. If economic self-sufficiency is emphasized, foreign trade will be restricted. If, on the other hand, adjustments can be made which will minimize self-sufficiency, there is as yet no reason to believe that foreign trade will not expand as in the past. Even if the policies adopted prove to raise the level of living within each country, which means a growth in national income per capita, the resulting advance in purchasing power suggests an increase in trade. In the past, an advance in national income has been accompanied by a gain in imports which are, of course, the exports of other countries.

SELECTED REFERENCES

Brown, A. J.: *Industrialization and Trade; The Changing World Pattern and the Position of Britain*. London and New York: Oxford University Press, 1943.

The League of Nations: *Europe's Trade*. Geneva: 1941.

—————: *The Network of World Trade*. Geneva, 1942.

—————: *Industrialization and Foreign Trade*, 1945.

Robertson, D. H.: "The Future of International Trade," London: *The Economic Journal*, 1938.

Röpke, William: *International Economic Disintegration*. London: Wm. Hodge & Co., and New York: The Macmillan Company, 1942.

Staley, Eugene: *World Economic Development*. Montreal: International Labour Office, 1944.

_____: *Statistics Relating to the War Effort of the United Kingdom*, Cmd. 6564. London: November, 1944.

United States Department of Commerce, Bureau of Foreign and Domestic Commerce: *Foreign Trade After the War*, Economic Series No. 28. Washington: October, 1943.

_____: *The United States in the World Economy*, Economic Series No. 23. Washington: May, 1943.

CHAPTER 19

THEORIES OF FOREIGN TRADE

Again attention should be called to what is meant by "theory." The word is used in two ways. First, a theory may be merely a statement of fact expressed in general terms. Thus, the Malthusian "theory" of population growth is an attempted generalization in the field surveyed. If it is an accurate generalization, it is a "good" theory. If inaccurate, it should be corrected or discarded. When the word "theory" is used in this way, no one can say that it is a "good theory but it doesn't work." There is no distinction between theory and fact or practice.

A second meaning is common. By "theory" is often meant a description of what might be or perhaps should be. Even though the ideas of Henry George about taxation have nowhere been fully applied we may speak of the "theory of single tax." Assuming that a single tax on land values were put into effect, certain results would follow. If a general term is desired, a theory in this sense may be called an "heuristic postulate."

A theory of foreign trade may be of either kind. It may be a generalized statement about the way in which and the reasons why foreign trade is carried on. To the extent that such a theory is an accurate generalization of the facts, to that extent the theory is sound or good. On the other hand, the theory may be a statement of the way in which foreign trade might be carried on and the results that would follow. To anticipate, the "doctrine of comparative costs" may be an admirable statement even though it does not "fit the facts." If trade were conducted as this theory proposes, there might be certain economic or other gains. If, in spite of these possible economic gains, we prefer to carry on trade in some other way, the statement will at least help us to measure the gains or the losses of doing so.

In a complex world it is not reasonable to expect that trade in thousands of commodities through multilateral transactions can be

explained without exceptions by a simple brief formula. There may, however, be certain underlying influences that account for many particular transactions and affect the general trend to such a degree that an attempted generalization will be helpful. Yet one American economist who presented the "doctrine of comparative costs" in a most elaborate manner, not only could say¹ of his own treatment that it was "heroically abstract," but could and did argue quite convincingly that it is an indispensable first step. Accordingly, an examination of the theory of foreign trade as usually presented is worth while. Students should be familiar with it in its usual form partly because it is the one usually presented and hence should be understood, but also because it may give a standard by which to measure the losses incurred if trade is actually conducted on some other basis.

SPECIALIZATION AND EXCHANGE

The advantages of division of labor and of individual specialization are clear. The result is a larger production of better quality than could be secured if each person undertook to produce all the articles he consumes. Similarly, one region may have certain advantages over others which make specialized production and exchange with other regions advantageous to both. One type of advantage is the abundance of tin as in Bolivia, of petroleum as in Venezuela, or of silver as in Mexico. These are illustrations of an advantage resulting from the abundance of certain natural resources. Another type is the abundance of labor. Assuming it to be of a high quality as, for example, in the making of hand lace in Belgium or in Switzerland, there seems to be a gain in specialization and exchange. Still another type is the presence of a large amount of capital equipment, as in Great Britain, Germany, and the United States. To the extent that and so long as these differences exist, there is a general gain in specialization and exchange. This is a commonplace in domestic trade, and unless some special conditions appear in connection with international trade, there is no reason why similar gains should not be found through international division of productive effort and trade. Climate, quality of soil, and the presence of coal, iron, copper, gold, lead, and useful minerals not found in other areas are among the natural resources that give some regions an advantage over

¹ Taussig, F. W., *International Trade*, New York, The Macmillan Company, 1927, p. 151.

others. An abundant labor supply, particularly if it is intelligent and skilled in certain kinds of production, is another advantage. Large capital equipment may give superiority. Nearness to the resources used or to markets often is a determining influence as is a long experience in a given field of production. Stable political institutions also are a factor.

ABSOLUTE ADVANTAGE

Advantages may be absolute or comparative. It is clear that in the production and marketing of gold South Africa and Australia have an advantage over other countries where no gold is to be found. No matter what their costs they can mine the gold, while the countries where there is no gold are unable to produce it no matter what the expenditures. If the latter are to have any gold, they must import it, making payment with commodities or services or with acceptable promises to pay.

Often, however, there is an absolute difference in costs even if the commodities in question may be produced in both countries or regions. Copper can be mined in the United States but at a higher cost than in Chile or in Northern Rhodesia, while the cost of raising cotton in the United States is lower than in the other two areas. With these absolute differences in costs, it would be an economic advantage for the United States to specialize in the production and sale of cotton, exchanging it for imported copper. The countries in which copper can be produced at lower costs than in the United States will gain by mining and exporting copper. As a result the people of the United States by devoting their efforts to raising cotton and exporting it, taking copper in exchange, will get copper at lower cost than if they mined copper for themselves. The countries which can produce the copper more cheaply will be getting the imported cotton at a lower cost than if they raised it within their boundaries. There will be more cotton and copper available for all the countries concerned and at a lower cost of production than if each tried to produce both articles.

As Adam Smith pointed out in *The Wealth of Nations*, very good grapes could at that time be raised in Scotland and very good wine be made from them under hothouse conditions, but at a cost about thirty times that of bringing in wines from foreign countries. The economic loss to the Scotch in undertaking to make their own wine under such a cost handicap is clear. The economic gain from import-

ing wine and from producing and exporting other commodities in whose production the costs are less is so great that few if any would seriously argue against it. Similarly, there would today be a great economic loss to the people of Canada if the people of that country should raise their bananas rather than import them from the tropics in exchange for their exports of grain, wood pulp, and other articles for which their resources are better suited.

In order to make the point clear, the illustrations used are extreme, but the same principle is involved if the cost differences are less. With due allowance for transportation and other expenses in connection with imports and exports, there is an advantage to any country in using its resources to produce and export those goods in which it has an absolute advantage and to import those goods in whose production it is at an absolute disadvantage. Cost differences may be slight but, large or small, there is a gain.

Increasing or Decreasing Costs. Thus far the concept of absolute cost advantage has been presented as though costs per unit of output are constant, that is, the same regardless of the volume produced. But a clear illustration of entirely constant costs could not be found and even close approximations are rare. Costs per unit produced vary with volume. Sometimes they fluctuate directly with volume and sometimes inversely.

If production of a given commodity, for example, wheat, is increased by bringing under cultivation land less suited to wheat-raising than that formerly in use, the production cost per bushel on this poorer land will be greater than that on the better land. Since this higher cost of the extra or marginal output will be reflected in the price, a country which has previously had a cost advantage in the production of wheat may in time find itself at a cost disadvantage. When this occurs, the economic gain in producing wheat for export may be lessened or even disappear. The same result might follow if an enlarged output of coal were secured only by working seams of poorer quality or farther below the surface. The "law of diminishing returns" is a fact to be considered.

On the other hand, an enlarged volume of output may be secured by using more nearly to capacity productive factors not formerly employed to the full. If a plant has been operated at only 50 per cent of its capacity and increases to 75 or 100 per cent, unit costs are reduced and lower selling prices are possible. Indirect or overhead costs are spread over a larger volume of output than before and

while direct costs may be affected little or not at all, the cost per unit is less. A disadvantage in absolute costs may disappear, and a cost advantage come into existence.

COMPARATIVE ADVANTAGE

Absolute differences in cost which warrant the term "absolute advantage" are common enough, but there are also differences in relative or comparative advantage which led to the formulation of the "law of comparative cost." The volume and direction of trade may be determined by these relative differences.

An illustration, not taken from international trade, will make the point clear. A certain banker who is head of a great financial institution which he directs with skill was once a court stenographer. He is, in fact, a more able stenographer than any of the scores of stenographers in his bank. He is superior to them as a bank president and also in the work they do. He has an absolute advantage over them in both lines. Yet instead of doing both kinds of work, he directs the bank and hires others to take dictation and operate typewriters.

He chooses not the line in which he has merely an absolute advantage, but the one in which he has the greater advantage. His stenographers do not do the work in which they have an absolute advantage, for they are at an absolute disadvantage in both. They do that in which their disadvantage is less — stenography. It is a choice of greater advantage or less disadvantage. If absolute rather than relative advantage determined occupations, the stenographers would not be hired by employers who themselves had superior stenographic ability. The same principle may and perhaps usually does operate in trade between regions or countries. But regardless of whether in practice it does or does not, there would be an economic gain to both countries in letting the principle determine the lines of production in each. This should be qualified by noting that there may be some other consideration that might be an offset.

It is usually the case that a principle seems clear when stated briefly but becomes confusing when an attempt is made to check it. Those who desire to familiarize themselves with the intricacies of the theoretical reasoning involved will find a vast literature on the subject.² Only a brief treatment is presented here.

² Several are suggested: Taussig, F. W., *International Trade*, New York, The Macmillan Company, 1927; Harrod, R. F., *International Economics*, New York, Harcourt, Brace &

EARLY STATEMENTS OF THE THEORY OF
INTERNATIONAL TRADE

The classical writers who made the greatest contributions to the earlier theory of international trade were David Ricardo and John Stuart Mill. Their statements reflected the conditions of their own times and the development of the economic theory of their period, which was the early nineteenth century. Economic analysis was largely deductive. Value was explained largely in terms of cost and particularly of labor cost. The prevailing emphasis was on competition and laissez-faire. Their presentation reflected these conditions of the times, a fact which by no means leads us to reject their analysis but does call for a restatement.

An illustration may be taken from a later source (1927). Says F. W. Taussig:³

Let us suppose that

In the U. S. 10 days labor produce 20 wheat
 In the U. S. 10 days labor produce 20 linen
 In Germany 10 days labor produce 10 wheat
 In Germany 10 days labor produce 15 linen

Under these assumptions the United States has an advantage (in labor time involved) in the production of both wheat and linen. This advantage, however, is not the same for both commodities but is twice as great in the case of wheat and only one-third in the case of linen. The advantage over Germany is greater in wheat. Germany is at a disadvantage in both but her disadvantage is less with linen.

In these circumstances there would be a clear gain to the United States in concentrating on wheat production and avoiding linen production. The labor expended in producing wheat for export to Germany in exchange for linen would be less than would be used in producing both wheat and linen at home. Germany would likewise gain by refraining from wheat production and concentrating on linen production. She has a labor cost disadvantage in both but less in the case of linen than with wheat. To the extent, therefore, that trade is carried on in accordance with the law of comparative

Company, 1933; Ellsworth, P. T., *International Economics*, New York, The Macmillan Company, 1938, Part I; and Haberler, Gottfried, *The Theory of International Trade*, London, Wm. Hodge & Co., and New York, The Macmillan Company, 1936, especially chaps. IX-XII.

³ *Op. cit.*, p. 23.

costs, the United States will export wheat and import linen while Germany will export linen and import wheat.

In this case as with that of absolute advantage, it must of course be noted that costs are not constant. A considerable increase of wheat production in the United States may mean an enlarged output only with higher marginal costs and the relative advantage in wheat production may be reduced or even vanish, depending upon the nature of the cost curves. Similar or opposite changes may occur in the production of linen where marginal costs may rise or fall with volume of output.

Also, the discussion to this point has made no reference to demand but has concentrated attention on the supply side, particularly on costs and more particularly on labor costs. While discussions of demand as affecting value were more fully elaborated years later, the classical writers were by no means unconscious of its significance in determining the ratio of exchange of commodities in international trade. Demand may be relatively elastic or inelastic, and the degree of elasticity varies from one commodity to another as well as from time to time and place to place.

Equation of International Demand. International trade takes place in many commodities and not merely in the two of the previous illustration. A unit of each commodity (that is, a bushel of wheat) is a supply of wheat but a demand for something else. The aggregate exports of a country are a demand for imports and vice versa. There may be formulated a "law of international values," which is but an extension of the more general law of value and may be called the "equation of supply and demand." John Stuart Mill called it the equation of international demand, his formulation being: "The produce of a country exchanges for the produce of other countries, at such values as are required in order that the whole of her exports may exactly pay for the whole of her imports."⁴

Comments on the Classical Statement. This is a regrettably brief summary of the earlier explanation of foreign trade. It was refined by other writers. To labor costs there were added the costs of capital. The effect on prices of the movement of gold (and silver) were included, since values are expressed in monetary terms. Still other qualifications were introduced.

Yet critics were numerous. They attacked not only the details of the classical presentation but also some of its bases. Usually the

⁴ Mill, John Stuart, *The Principles of Political Economy*, 1848, Book III, chap. XVIII, p. 4.

argument has been presented in terms of real costs, with emphasis, as has been noted, on labor costs, often in labor time. It was more and more realized that labor or even labor time is not a suitable measure of the value of labor since it must be recognized that an hour of labor spent in one way may be recompensed more highly if spent in another way or by some other person. Then, too, the proportions of the factors of production are not the same from one line of production to another. A common unit of measurement is needed if values are to be compared and that unit is money.

Also, as time passed, there came great changes in the theory of value. The older labor theory was displaced by the mutual-interdependence theory. Curiously this theory was quite generally accepted in the general theoretical discussion of value, while explanations of international trade were still presented in terms of the older labor cost theory, although with some modifications. Moreover, the classical explanation was condemned as static whereas economic life is increasingly dynamic; or as placing undue emphasis on the immobility of the factors of production between countries as contrasted with an assumed high mobility within any one country; and as exaggerating the prompt adjustment of costs, prices, and incomes within each country to changes elsewhere.

THE GENERAL EQUILIBRIUM THEORY OF INTERNATIONAL TRADE

Later writers have accordingly attempted to state the theory of international trade by bringing it more into line with modern economic thought.⁵ To their analysis is applied the designation *general equilibrium theory*. Factors of production are not available in the same amounts and qualities in all countries or regions and are combined in different ways. One, the Argentine Republic, for example, may have an abundance of land but a relatively small amount of labor or capital or both. Another, Belgium, may have a large population and capital supply but limited natural resources. The amount of a productive factor as related to the effective demand for it will determine the price paid for its use. This price in the form of rent or interest or wages in turn affects the cost of production. "In the long run," the prices of produced commodities will be determined by costs but prices paid for the use of the factors of production vary

⁵ See especially Ohlin, Bertil G., *Interregional and International Trade*, Cambridge, Harvard University Press, 1933, and Haberler, Gottfried, *op. cit.*

from one region to another and from time to time and there are bound to be differences in total costs — differences that are absolute in some cases and relative in others. “Loosely speaking, then, differences in factor equipment may be said to be the fundamental cause of interregional trade, provided we remember that such differences are relative to demand.”⁶

Immobility of Factors of Production. Within any country there is a considerable mobility of the factors of production — land, labor, and capital. Natural resources can not, strictly speaking, be moved. Labor is not completely mobile, since the cost of movement, especially if the worker has a family, may be considerable, but in general labor can and does shift location within a country more readily than from one country to another. Not only are there political barriers to migration, but differences in language and customs, in climate, and in other particulars may be deterrents. On the whole, there is more labor mobility within a country than between countries.

Capital equipment varies in mobility. Tools and smaller machines are readily movable but buildings and heavy machinery less so. During the Second World War, it was demonstrated that much capital equipment formerly thought to be immovable could be transported over long distances and even from one country to another. Nevertheless, distances within a country are usually shorter and the expenses of transfer are less and mobility is somewhat greater.

What is sometimes called “capital movement” is not at least strictly and immediately a movement of physical equipment or instrumental capital. This idea will be considered more fully in later chapters and we need to observe here only that such transactions are shifts in ownership of “capital funds.” These funds may or may not be used to buy and transport tangible commodities. If so used, the goods purchased may be either consumer’s goods or producer’s goods or may even be “invisible” items. This is on the assumption that there is no specification regarding the use of funds when the loan is arranged.

Without exaggeration we may say that internal mobility of the productive factors is greater within a region than between regions. Thus the larger amount of one factor — say labor — in country A than in country B will not be readily corrected by the movement of labor from A to B. Natural resources can not be shifted and the same is true, with qualifications, of much capital equipment. If,

⁶ Ellsworth, P. T., *op. cit.*, p. 95.

then, A has an abundance of, say, labor, the cost of that factor will tend to be low and emphasis will be placed on the production of those commodities in which labor can be employed. In fact, the abundance of labor and the resulting low level of wages may deter the introduction of machinery. Country B may have an abundance of natural resources. This abundance means that "rent" for their use will be low. If labor and capital equipment are relatively scarce, this country or region will presumably turn its productive efforts into those lines where the cheapness of the natural resources gives it an advantage.

Demand as well as supply factors must be included. An earlier chapter has stressed the fact that "natural resources" are relative and functional. An abundance of "natural nitrate," as, for example, in Chile, does not of itself mean that Chile has valuable resources. Their value is dependent on the demand for them and that demand may be considerable at one time and less at another. Hence the trade between Chile and other countries and regions will be affected by other considerations than the abundance of nitrate deposits and may fluctuate widely.

Money and International Trade. Again reference must be made to later chapters where money will be more fully considered. Only a few comments will be introduced at this point. In a very broad sense, all trade is barter — an exchange of goods for goods. But, for the most part, money is used as a measure of values and as a medium of exchange. Each country has its own monetary standard and its own unit. We shall assume here that all have the gold standard, each with its own unit: the dollar, pound, mark, lira, franc, and so forth. If a given country uses the franc as money, local transactions are carried on in terms of the franc. If, for any reason, prices of a commodity (or of prices in general) rise in francs, this country, for example, Belgium, becomes a good market for the products of other countries and imports into Belgium will increase. If prices fall, exports will rise. These shifts will influence the quotations for Belgian francs in terms of dollars and other currencies. If the franc declines in terms of dollars, this in itself means that costs in Belgium are lower than before in terms of dollars and owners of dollars will be encouraged to purchase Belgian goods. These purchases are a demand for francs and the franc rate tends to be restored and along with it the former relationship between costs in Belgium and in other countries. This applies to the costs of particular goods and

not merely to the general level. Also, many of the same tendencies in the foreign exchanges will be evident even if one or all of the countries concerned are on distinctly different monetary standards.

General Comments. The general equilibrium analysis is a clear advance over the classical presentation. It breaks away from the older labor cost approaches and harmonizes foreign trade theory with general value theory. This is a gain. Yet it should be noted that it may or may not be a substantially accurate theory in the sense that it is a suitable generalization on the facts in the field covered. Certainly a large amount of international trade does not conform closely in composition and in direction to the formulas just enumerated. It may be that these variations are minor and that the underlying trend is fairly well summarized in the theory but it is possible at least to indicate some of its uncertainties.

This will be done more fully in the next chapter. There may be added here only the comment that numerous assumptions underly the theory. This is not in itself a serious criticism. All general theories in all fields must be presented first in an oversimplified form, with the provision that later in the analysis the proper qualifications and exceptions are to be recorded. These qualifications and exceptions may, however, be so numerous and so serious that some other approach would be better.

CHAPTER 20

THEORIES OF FOREIGN TRADE (*Continued*)

The older classical theory of foreign trade was inadequate. Attempts to modernize it by bringing it into harmony with current theories of value have been an advance. But more is needed and it is doubtful whether the time is yet ripe for the next steps. Occasionally, too much emphasis is placed on the sweeping social changes that are occurring in the twentieth century, yet it would be a serious error to minimize them.

Every period is one of transition but some are more so than others. An economist is always hampered because what he is endeavoring to explain may have been greatly altered before he has completed his statement. No matter how admirable the analyses of Adam Smith, John Stuart Mill, or David Ricardo for the periods of which they wrote, their explanations may be inadequate for the world of today. Occasionally, there are times, such as about the end of the eighteenth century and at present, when technical developments are peculiarly accelerated. When this is so, theoretical analyses and social institutions are dated more quickly than usual. Intellectual and institutional lags are greater than in more ordinary times. No better illustration can be found than the present world-wide alarm over atomic energy. If political tensions can not in some way be relieved, the future of civilization is dark. But even if wars can be avoided or strictly localized, the economic implications of atomic energy for a peaceful world are in themselves appalling. Adaptations of economic and political organization will not be easy. Among them may be sweeping modifications in international or interregional trade. Also, as time passes, our explanations of its composition and direction may be far different from those appropriate today. Even our concepts of the ways by which the maximum economic gain could be secured may be altered.

Imperfect or Monopolistic Competition. In recent years economic theorists have been giving much attention to "imperfect competi-

tion" or "monopolistic competition." Earlier writers had been fully aware that there is seldom, if ever, either pure competition or pure monopoly but they had usually been content to present their views first under the former assumption and then under the latter. There were theories of competitive price and of monopoly price with a minimum of space given to the analysis of prices which are neither the one nor the other but in varying degrees between the two extremes. Current texts are giving increasing attention to these ideas.

It would be unfair even to imply that modern writers on the theory of international trade have failed to note that much of the trade they are describing is not in the field of perfect competition.¹ But thus far the attempts made have not been very thoroughgoing and there is much yet to be done. Monopolies with greater or less completeness of control are numerous. Especially are there what are known as international cartels, which have operated with a greater or less degree of government approval or even of assistance. Finally, the agreements in recent years are increasingly agreements between governments.² Yet most theoretical writing in this field starts with the assumption of private enterprise and free competition (which may be a helpful approach), proposing later to introduce relevant qualifications, but often failing to present these corrections, at least to an adequate extent.

In the reconstruction of theory there are two considerations to be kept in mind. One is that in international trade as in domestic trade most competition is imperfect and monopoly elements are increasing rather than diminishing. The other is that in both domestic and foreign trade governments are adding to their controls and, as just pointed out, to their own direct participation in international commodity agreements. Accordingly, a suitable theory of foreign trade must allow properly for all those matters taken into account by the theory of monopolistic competition as an explanation of domestic trade. In addition, there are the considerations that are somewhat loosely called "political" and that appear even more in the field of foreign affairs than within a country.

In the preceding paragraph, the word "theory" refers to an

¹ See, for example, Ellsworth, P. T., *op. cit. passim*, and note also Haberler, Gottfried, *op. cit.*, in the "Preface to the English Edition," p. V, where he observes: "The theory of imperfect competition . . . must be applied to the problems of international trade."

² See *Intergovernmental Commodity Control Agreements*, Montreal, International Labour Office, 1943.

attempt merely to state the facts about foreign trade in general terms. Much the same can be said if "theory" is used with the other meaning — the statement of a possible or ideal manner of conducting trade. There is little though something to be gained in sketching an "heuristic postulate" if it is one that conforms in considerable measure to the facts or if it can be presented with at least a hope of partial realization.

WHAT ARE COSTS?

It is not surprising that the concept of costs looms large in foreign trade theory. If we are attempting to generalize about business practice, it seems appropriate to start with the assumption that goods will not for long be offered for sale at less than the cost of producing them. Since costs range among producing units from low cost to high cost, some general concept must be introduced, such as average cost, or cost of the representative firm, or marginal cost, or bulk-line cost. There are difficulties with each of them but attention may be centered upon the growing impossibility of applying the concept.

A distinction may be drawn between (1) real costs or disutilities incurred in most production, and (2) financial outlays or expenses that are incurred in producing and exchanging commodities. At times, perhaps usually, there may be a relationship between the two though often it may be conspicuous by its absence. We are using cost to mean "money cost" or financial outlay rather than in the other sense.

Indirect Costs. Even so it is highly complex. What is the cost per ton of producing steel rails? Shall we find it by dividing the total number of tons of steel rails produced by a given plant during some chosen period of time, say a month, into the total costs of that plant for the same period? If so, the procedure seems fairly simple until we remember that the corporation concerned may be producing at the same time and at least in part with the same equipment, a considerable number of other products in addition to steel rails. It would not be appropriate to charge all the costs, since many of them are joint costs, to the steel rails alone but their allocation among the various products on a strictly logical basis is not possible.

Another approach may be suggested. If we assume a plant manufacturing only one product, for example, steel rails, perhaps the cost of a given ton is only the extra cost incurred in its production,

namely, the direct cost. For some purposes or for some occasions, this approach is attractive. Assume that the plant is operating on domestic orders at only 50 per cent of capacity at a "cost" of \$40 per ton. Another order may be secured, perhaps from abroad, if a price of \$30 per ton can be quoted. The extra costs — the direct costs — may be only \$20 per ton. It is at least tempting to think of this \$20 as the cost of producing each ton sold abroad. While indirect costs must in some way be met, they may be fully covered by the sales in the domestic market at the \$40 price.

Indirect costs are by no means confined to manufacturing but are everywhere present. In agriculture — in rent, taxes, draining and clearing land, construction of buildings, investment in machinery — they are increasing. Even a professional man must make various indirect outlays on education, library, office equipment, and otherwise. Any particular service which he renders may involve a special direct additional outlay, but he hopes to receive from at least a part of his services returns that in the aggregate will reimburse him for his indirect costs.

By-products. Many lines of business involve the production of many different items. There is the advertisement of the "57" products of one of them. A concern like Armour & Company prepares for sale a long list of articles which may be grouped not only as beef, veal, pork, lamb, and mutton but each must be subdivided into different grades or qualities. Then there are oleomargarine, glue, fertilizer, buttons, and many other products. By-products are numerous. Not only do manufacturers market a great variety of items but farmers raise many different grains, fruits, and vegetables. Silver is found mixed with other minerals. Sometimes it is the leading mineral taken from a mine with a number of others and sometimes one or more of the others is the most valuable, with silver a sort of incidental product.

Determination of costs when a considerable percentage of the total cost is indirect certainly is perplexing when there is only one product to consider. When there are by-products the indirect or overhead costs must in some way be allocated among them. Cost accountants have devised many helpful ways of allocating overhead but there is no basic, logical method of apportioning them. The various methods employed are unquestionably helpful but no one can determine how much of the annual rental paid for the stockyards used by a meat packing company or how much of the

salary of the president is a proper charge on oleomargarine or on a ton of fertilizer.

Socialization of National Economies. There has, of course, never been complete laissez-faire. Certainly in modern times in most countries it has been increasingly qualified. In years past, the emphasis was on private ownership and profits to such an extent that our reasoning could start from postulates related to that type of economy. The approach that assumed a tendency for each productive unit of its own volition to gain the maximum reward for its contribution had much to commend it. The net result, it could be argued, was an allocation of productive resources without social controls that gave the highest return to each and to society as a whole.

This method of allocating productive resources has, however, been greatly modified. Instead it has been contended that there are general advantages in controlling the direction of production and in modifying the distribution of the national income. Certainly as early as in 1816, it was decided to encourage the production of textiles in the United States by the aid of a protective tariff rather than to allow the textile manufacturers of the day to face unaided the competition of imported textiles. Tariffs have been raised through the years to their current levels, social guidance thus being given to production. Then there was the Homestead Act for the apportioning of public lands, the land grants to the railways, direct and indirect social aid to the merchant marine, and more recently, subsequent to 1929, a rapid increase in assistance to special groups. All of these devices adopted because of actual or fancied social advantage are a great departure from the idea of allowing each productive unit unaided by society to survive or perish in the competitive struggle.

This tendency toward more social direction within each national economy has had several consequences. It has occurred in some cases because of the pressure of special groups seeking public help. In other cases, it has been attributable to a strong belief that uncontrolled private enterprise is not conducive to public welfare. There have been tariffs and subsidies but there have been controls over business activity — over banks, railways, light and power companies, the telephone and telegraph companies, and financial operations. There has been an increase in public ownership and operation.

One of the consequences has been that many costs formerly direct

(and hence costs that were reduced in periods of declining business) are being recognized as costs that really persist for society as a whole. During a depression an employer may discharge workers and reduce outlays for wages, but unless the worker and his family actually die, they go on eating, wearing clothes, and consuming fuel. The amount of their consumption may be sharply reduced but there is a cost that continues, out of their own savings, from public funds, or from private charity. By legislation or through voluntary action, some of these costs have fallen on private business in the form of dismissal pay, guaranteed employment, unemployment insurance payments, and other devices, but much of it has been taken over by society and the expenses met out of the public purse. This trend and others related to it may be summarized in the generalization that in many countries the national income is being disbursed more fully in accordance with real or alleged needs.

National Overhead and By-products. This has a profound effect on costs and important consequences in international trade. Assume that country A, through such methods as we have sketched or otherwise, has unified its economy. If there are difficulties in determining the costs of private production because a considerable fraction of total costs are indirect, those difficulties are magnified a thousand fold if the whole national economy is organized as suggested and all or nearly all costs are recognized as persisting instead of variable.

Under these conditions, too, all of the articles produced — hundreds of thousands of them — are by-products of the national economy. Most costs — let us for emphasis say all costs — are overhead or indirect and are to be apportioned in some manner by society among the many products. And this may be done by social actions affecting wages, availability of capital, interest rates, taxes, and other cost items. Instead of costs and prices being settled by the “higgling of the market,” they are determined in other ways that, by some standard, may or may not be superior. All that is being urged is that the difficulties with costs that have been growing under private enterprise have been multiplied.

Controlled Exchanges. Attention will be given later to the foreign exchanges. It may be noted here, though briefly, that if the cost of producing anthracite coal in the Soviet Union and in the United States can be calculated to our satisfaction, this cost is expressed in rubles in the one country and in dollars in the other. So long as

foreign exchange transactions are "free," the price of coal in rubles can be quickly converted into dollars by using the current foreign exchange rate. But with exchanges controlled or with the prices of currencies "pegged," such a conversion is meaningless if the official rates are used. If, instead, unofficial or "black market" rates are employed, they must be recognized as highly erratic and speculative.

A Dilemma. Release of atomic energy has brought almost frantic pleas for the surrender of national sovereignty to a world government. But as yet we are living in a world where there are many sovereign states — forty-four of them in the United Nations Organization and others outside. As the years have passed each part of the world has become more dependent on each other part, but in the absence of a world government we have something like fifty different governments, each of which has its own monetary and banking system, its own taxes, pure food laws, and other features which tend to organize each national area as a separate economic unit more or less in opposition to each of the others similarly organized. As socialization has proceeded, the former methods of doing business have been profoundly modified and some of our older theoretical tools are less satisfactory.

SOME CURRENT PRACTICES

To this point the discussion has been designed to indicate the difficulties there are in stating any generalization that may be called a theory of foreign trade. The concept of comparative costs is valuable and should by no means be discarded. Costs do influence prices and to a considerable degree the volume and direction of trade are affected by costs. It would be an error, however, not to recognize, as has been argued here: (1) that the calculation of costs even by private business, is increasingly intricate; and (2) that the growth of socialization within each country has immensely complicated the problem. Also, aside from what may be called the strictly economic influences, there are those noneconomic matters, often called political.

Perhaps the issues raised will be made clearer by some brief reference to recent or current practices. Some are related to what we may hope are temporary difficulties, notably to the depression starting in 1929, to the Second World War, and to what we may hope is a brief transition period now that the war is over. Others, however, are more permanent. All are related to the general argument of the

chapter: that costs are less dominant as trade determinants and that we may for some time find international trade aided to a high degree by each country concerned. Both exports and imports but especially exports may be pressed by using public funds to subsidize them.

Trade Rivalry. The background is one that will encourage the most intense competition for foreign markets. Thus, the United States has for many years had an excess of exports and this excess was greatly enlarged during the late war. There will be serious internal repercussions if exports suddenly decrease, and efforts will be made to secure government aid. For quite different reasons the British will endeavor to expand their exports by, it is said, 75 per cent above the prewar level. Other illustrations could be added. The stage is set for acute trade rivalries.

Trade Subsidies. If in the past a particular industry was at a disadvantage, government subsidies might be granted. This has been generally true of merchant shipping but the device has been widely used in both direct and indirect forms. Thus the United States has subsidized exports of raw cotton which could not otherwise have occurred. Also at the present time the United States is subsidizing imports of coffee.

Tying Clauses. As will be elaborated later, loans may be made only on condition that the borrowed funds be spent in the lending country. This means the export of particular goods that might not have left the country merely because of a cost advantage. In fact, they may be exported in spite of a cost disadvantage.

Cartels. International cartels — also to be considered later — may encourage or discourage exports or imports to move in volume and direction other than those that would be determined by cost advantage. In these cartels governments are participating more and more.

Monetary Controls. Trade is definitely affected by appreciation or depreciation of a national currency. This device has been freely used in the past although it is to be hoped that its use will be less frequent in the future. Stimulus or restrictions owing to monetary controls may be brought within a cost explanation but the device deserves special mention.

Another form of monetary control is to be found in the currency areas. The clearest illustration at the moment is the sterling area. In October, 1945, the sterling area consisted of the British Common-

wealth and Empire (except Canada and Newfoundland), British mandated territories, British protectorates and protected states, Egypt, the Sudan, Iraq, Iceland, and the Faroe Islands. To this list there should perhaps be added several other countries which have entered into informal monetary arrangements with Great Britain although they are not legally a part of the sterling area. Within that area as legally defined foreign exchange is pooled and external transactions brought under control.

Regionalism. To the extent that for political purposes countries are organized in regional groups, there is a possibility that they may act together in economic matters and that trade will be determined in part by other considerations than cost advantage.

Full Employment. A current slogan is full employment. By it is meant that a given country — say the United Kingdom or the United States — will endeavor to bring about and maintain a full use of the factors of production, especially labor. Ignoring the difficulties of defining full employment and of applying measures that will secure it, we may observe that the application of the idea will doubtless include efforts to stimulate or diminish imports or exports through government controls. Trade will at least move differently than if mere cost considerations were the determinant. Some of the “interferences” have resulted from war conditions and will be and are being relaxed but others are to be explained by long-run and basic causes that persist and their early removal is not to be expected.

SELECTED REFERENCES

Ellsworth, P. T.: *International Economics*. New York: The Macmillan Company, 1938.

Haberler, Gottfried: *The Theory of International Trade with its Applications to Commercial Policy*. London: Wm. Hodge & Co., and New York: The Macmillan Company, 1936.

Ohlin, Bertil G.: *Interregional and International Trade*. Cambridge: Harvard University Press, 1933.

Tasca, Henry J.: *World Trading Systems; A Study of American and British Commercial Policies*. Paris: The League of Nations, 1939; also New York: Columbia University Press, 1939.

Taussig, F. W.: *International Trade*. New York: The Macmillan Company, 1927.

Viner, Jacob: *Trade Relations between Free-Market and Controlled Economies*. Geneva: The League of Nations, 1943.

CHAPTER 21

CONTROLLING FOREIGN TRADE

Not many years ago most economists in Great Britain and the United States were advocates of "free trade." They were impressed with the gains there are in division of labor and in regional specialization. When exchanges occur, whether by barter or with money as a medium, there is a creation of utility. Each party has more of some commodity than he cares to retain, since each additional unit of a given article has less want-satisfying power than the preceding unit — the "law of diminishing utility." If another individual is in the same situation with his commodity, an exchange occurs with the result that each has a larger aggregate of utility than before. Both have gained or the exchange would not occur. This reasoning has to do with demand.

On the supply side, costs were held to be the chief determining factor. Costs vary from one region to another. The older theories, which in recent years have been sharply criticized, and the newer ones, which have at least in part displaced them, are expressed in terms of a difference in costs: absolute or comparative. Where the costs are lower — in either sense — there will tend to be a production large enough to result in a market price low enough to attract buyers from some other region or country. Because of a similar cost advantage, some of the products of the latter will be offered at prices so low that they will be purchased by buyers in the first. There will be an interregional or international exchange. Since there is a clear gain to both areas, particularly when trade is multilateral, as distinguished from bilateral, trade between them should be encouraged. Barriers should not be raised and where barriers exist, they should be removed. Trade should be free.

In spite of the convincing nature of such arguments, there has been a surprising failure to act in accordance with them. On the Continent of Europe other ideas have been more prevalent, particularly during the last seventy-five or one hundred years. In Great

Britain, business men and statesmen were more impressed with them up until a few years ago when the tide turned against free trade and in favor first of "tariff reform," then of "imperial preference," and more recently of a considerable degree of "protection." In the United States since the end of the Napoleonic Wars, protection has been increasing. Occasionally there has been a reversal but on the whole protection has been growing for 125 years.

Such a sharp contradiction between political practice and the admonitions of most economists calls for explanation. This is to be found in a mixture of influences. In part it has been the result of pressure politics, in part a sincere belief that there is a social gain from protection, in part a confused mixture. In the arguments pro and con there is to be found a curious combination of good and bad reasoning and a little later some of these arguments will be examined. Currently, most economists are at least less dogmatic in support of free trade. Either because of conviction or because of a belief that a fight for completely free trade is futile, most of them are content to argue merely for "freer trade."

Agencies of Control. Controls over the amount, the composition, and the direction of foreign trade are exercised in part by governments and in part by private groups. The latter type can best be considered later in the discussion of international cartels. In this chapter we shall consider controls by governments. No sharp line of distinction can be drawn since the two are often closely inter-related, but it is easier and clearer to discuss them separately.

Economic Protectionism a Broad Concept. Often it seems to be assumed that "protective tariffs" are the only or the chief device by which governments control foreign trade. Also, the word "protection" is frequently used as though it refers solely to negative measures, particularly import duties, designed to restrict the movement of commodities into a country. But as an Austrian economist¹ observes:

The economic policy known as Protectionism . . . [is] the totality of those measures by which the national economy seeks to promote its interests in the world economy field. The essence of the concept includes an interrelation between national economy and world economy, between home production and the home market on the one hand, and foreign production and the foreign market on the other. It is only a part of productive policy as a whole, namely that part which turns to account the world economy relations of production itself.

¹ Grunzel, Josef, *Economic Protectionism*, New York, Oxford University Press, 1916, p. 125.

Protectionism, as a policy, is accordingly broad. In efforts to "protect" the national economy against the world economy, both positive and negative measures may be applied. Moreover, they may be directed either for or against the importation or exportation of commodities or capital or labor. Thus, immigration or emigration of people may be encouraged or discouraged; in earlier chapters we have discussed controls over migration. Or there may be encouragement or discouragement of the importation or exportation of capital, a topic that will be considered in Part Six of this volume. Here only the importation and exportation of commodities will be examined.

Thus limited, the subject is still complex. A general guide to analysis is found in another statement by Josef Grunzel.² "Economic Protectionism is directed to no other end than the securing of the domestic market to the business of a country by political means." The purpose of protective measures is to debar completely or in part commodities produced in other countries. This, however, is only a partial statement. If the concept is broadened to include not merely such negative measures as import duties and import quotas, but positive measures such as bounties on exports and inducements to shipping, economic protectionism is the aggregate of the political measures designed not only to secure the home market to domestic producers but also to extend their foreign markets.

The Growth of Protectionism. During the early part of the nineteenth century there was, especially in western Europe, a strong tendency to reduce trade barriers and to move in the direction of free trade. This was a part of the general "liberal" attitude of the time and was related to the other economic and political views of the period. Laissez-faire was in the ascendant, there was a belief in liberty, fraternity, and equality. Natural law was to be relied upon rather than man-made laws. In the absence of restraints, each individual and each factor of production would be employed where the maximum gain could be secured with profit to each individual and with a resulting maximum social advantage.

Great Britain was to the front of this movement and remained in that position for over a century. A high point was the abolition of the Corn Laws in 1846. For a time it seemed that the rest of western Europe would follow the British example, but after the middle of

² Grunzel, Josef, *Economic Protectionism*, New York, Oxford University Press, 1916, p. 132.

the century the trend was clearly reversed and, following the First World War, protectionism was dominant. In the meantime, the United States had never subscribed to free trade but even as early as 1789 adopted a slight amount of protection. In 1816 and thereafter, the movement grew and with only occasional reversals protectionism was employed to an increasing degree and in more and more ways. Today the extent of protectionism and the forms in which it appears are greater and more numerous than ever before.

SOME DEVICES OF PROTECTIONISM

The various devices are not only numerous but many of them are for a variety of purposes. Some are directly and primarily to restrict (or encourage) commodity movements but often even these measures have an effect upon capital movements or even upon human migration. Others, intended especially to affect capital movements or migration, may also influence trade in commodities. Not in every case can a sharp distinction be drawn.

Import Duties. Duties are imposed on imported commodities for two reasons. One is fiscal. Governments must find revenue for meeting their expenditures and taxes are the chief means employed. One tax that is easy to collect and is widely used is the one paid by importers, the amount being determined by the number of physical units imported (specific) or by their value (ad valorem). The purpose may be merely to raise revenue and not to lessen the importations with a view to restricting the domestic market for domestic producers. The purpose may be purely fiscal and without either the purpose or the result of affording protection. Until recent years the duties levied on imports into Great Britain were of this sort. When we say that Great Britain was for a long time a "free trade" country, we do not mean that import duties were not used as a source of government revenue but that they were levied on imported commodities that did not compete with domestic production.

These tariffs for revenue only have a considerable amount of popularity for several reasons. They are fairly easy to levy and to collect, although smuggling must be watched and there is always the necessity of guarding against undervaluation by the importers. Another reason is that they are indirect taxes, that is, their burden or incidence does not rest finally or fully on the importer who makes the payment. To some extent this burden is passed on in higher prices charged by the importer to the wholesaler, by the wholesaler

to the retailer, and by the retailer to the consumer. The consumer is usually not conscious that a part of the price he pays is a tax and complains less than he would if he made a direct tax payment of an equivalent amount, as an individual income tax, for example.

This view is only partially correct. The incidence of taxation is highly complex. Whether the tax is passed on, in whole or in part, depends on the facts in a given case and a clear answer is often not possible. Nevertheless, there is a general disposition to class such taxes as indirect. Also, it is widely believed that the incidence of such levies is on the foreigner. It is thought that because of the tax and the resulting higher price to the consumer, demand for the commodity will be lowered and less will be imported. This, it is said, throws at least a part of the burden on the foreign producer who can sell less in the importing country unless he sells at a lower price.

In 1789-1791, the total receipts of the Treasury of the United States were \$4,418,913, of which \$4,399,473 came from customs duties (including tonnage tax). In 1859, just before the Civil War, total receipts were \$53,486,465, of which \$49,565,824 was from customs duties. By 1939, total receipts were \$5,164,823,626 but customs duties furnished only \$318,837,311. At the end of the eighteenth century the duties were levied primarily to raise revenue. As the years passed, they were more and more protective in their purpose. It is sometimes said that to the extent that an import duty furnishes revenue it is not protective and that conversely, to the extent it is protective, it will not yield revenue since goods are kept out. This will be mentioned again a little later in connection with the discussion of the level of protective tariffs.

Protective Tariffs. While some import duties are for revenue only, many are imposed for the purpose of reducing the amount imported and of thus reserving the market for the domestic producer. Since "prices vary directly with demand and inversely with supply," any method that restricts supply tends to raise prices. The extent to which prices will rise depends upon the "elasticity of demand," but there is some price elasticity in all demand. Accordingly, if smaller quantities of textiles or chemicals or raw wool produced in other countries are imported, say from Great Britain or from Germany into the United States, the aggregate of the foreign and domestic supply offered in the markets of the United States will be less and the equilibrium price will be higher. This higher price is advantageous to the domestic producer.

Considered in terms of differences in cost — absolute or comparative, as discussed in the preceding chapter — the effect of a protective tariff is to lessen the cost advantage that may be enjoyed by A, an exporting country, over B, an importing country. To the other costs of production, including freight and other shipping charges, there is added an import duty. Total costs are higher, the advantage is narrowed, and the volume of imports is reduced. There is no direct effect on the exports of B but indirectly the result may be considerable. Since imports from A are lessened, there is a reduction in receipts from sales with which commodities from B might be purchased. There is consequently a long-run tendency for trade in both directions to decline.

Are Tariffs High? It does not follow that this reduction in trade is great. The extra cost attributable to the tariff may be so small a fraction of the total that the addition may seem trifling, or the demand in the importing country for the article may be very inelastic. On the other hand, the reverse may be true and the effect on the volume of trade will be considerable. There is a disposition on the part of some free-trade enthusiasts to overstate the case against protection. Presumably, however, the word "high" carries with it the idea that the height is sufficiently great to reduce trade to such an extent as to cause a serious economic loss to the exporting country or to the importing country or more likely to both.

When an attempt is made to indicate how much foreign trade is restricted by tariffs, difficulties at once begin to multiply. One approach is to notice the extent to which the alteration of protective duties is followed by a decrease or an increase in imports. If the tariff has a restricting influence, an increase in rates or new duties will presumably reduce imports. An examination of imports into the United States might show an increase in imports after the passage of tariff legislation lowering duties and a decrease subsequent to an increase in duties.

When an examination of trade statistics is made, evidence of such tariff influences is hard to find.³ Throughout the history of the United States imports have grown. There have been, it is true, fluctuations in amounts but in some cases higher duties were followed by an increase in imports and lower duties by a decrease. Thus, the higher duties of the McKinley Act of 1890 were followed

³ See an article by Roorbach, George B., "The Effect of the Tariff on Import Trade," *The Annals of the American Academy of Political and Social Science*, January, 1929, pp. 18-29.

by an increase in imports per capita until the effect of the business depression of 1893 were felt. The same tendency is evident after the passage of the Fordney-McCumber Act in 1922. The Underwood Act with lowered rates was followed by a slight increase of imports in 1914 but this seems to have been a continuation of an upward trend beginning in 1909 when the high-tariff Payne-Aldrich Act was passed. There was, however, a slight tendency toward an increase in the percentage of total imports which entered duty-free — a tendency strong enough to suggest that the higher duties accomplished to some extent their purpose, which was to reduce the amount of imports subject to the higher duties.

Yet the available data show that imports have fluctuated inversely with changes in the level of duties only to a moderate extent at best. Foreign trade fluctuations are dominated more by other influences than by tariffs. The ups and downs of the business cycle, national incomes, and industrial production are much more powerful in their effects.

Another and perhaps more difficult method is to attempt a calculation of tariff levels. But how is one to measure tariffs? Some are specific and some are ad valorem while some are a combination. It is possible, of course, to examine a particular law and list the rates of duty imposed for each commodity, but a modern tariff law is a lengthy document and even the sections dealing with rates imposed as distinct from the administrative and other provisions cover many pages of detailed specifications including hundreds of commodities. If a general statement about tariff levels is to be made, this involved material must be brought together.

A first decision is as what items to include. Shall the value of all imports be taken as the base and then the amount collected calculated as a percentage of it? If so, both free goods and dutiable goods are included and the result does not give what is being sought.

Perhaps, then, only the value of the imports of dutiable goods should be compared with the value of the goods that are duty-free. If 90 per cent of the imports are duty-free, one may conclude that the rates must surely be low. But this leads to absurd results. Assume that country A has imports valued at \$1,000,000,000 and no duties are imposed. It is decided to impose duties on \$500,000,000 worth of these commodities, duties so high as to be prohibitive, and imports are reduced to just one half of this former amount. But all of the imports are still duty-free. It would seem ridiculous

to argue that if duties are imposed on only a small percentage of the commodities imported, the restrictive effects of a protective tariff are slight, yet this contention was made by a prominent American official in a public address not many years ago.

Careful students do not commit such mistakes but even with the greatest of care the conclusions they reach are not in any sense very precise. One method to be used for a particular country is to average in some way the rates of duty imposed on imports subject to import duties. Another approach is to compute the protective tariffs of different countries and then compare them. Two such attempts will be noted.

One was made by experts who prepared a report entitled *Tariff Level Indices* for the International Economic Conference held in 1927 at Geneva. They used two methods — A and B — but only the results of the latter are given here and without description of the procedure other than to say that the conclusions reached were presented with great reserve. For the year 1925 the approximate height of the respective tariffs was as given in Table 42.

TABLE 42

TARIFF LEVELS IN TWENTY COUNTRIES IN 1925

Over 40 per cent	Spain.
Over 25 per cent	United States of America.
Between 20 and 25 per cent	Argentina, Hungary, Poland, Yugoslavia.
Between 15 and 20 per cent	Australia, Canada, Czechoslovakia, Italy.
Between 10 and 15 per cent	Austria, France, Germany, India, Sweden, Switzerland,
Between 5 and 10 per cent	Belgium, Denmark.
Under 5 per cent	The Netherlands, the United Kingdom.

Using the same methods another calculation was made covering manufactured articles only. The results are given in Table 43.

TABLE 43

TARIFF LEVELS IN TWENTY COUNTRIES IN 1925

Manufactured Goods Only

Over 40 per cent	Spain.
35 to 40 per cent	United States of America.
30 to 35 per cent	Poland.
25 to 30 per cent	Argentina, Australia, Czechoslovakia, Hungary.
20 to 25 per cent	Canada, France, Germany, Italy, Yugoslavia.
15 to 20 per cent	Austria, Belgium, India, Sweden.
10 to 15 per cent	Denmark, Switzerland.
Under 10 per cent	The Netherlands, the United Kingdom.

A more recent study has been prepared by the American Tariff League, Inc., of New York City.⁴ The League of Nations experts whose findings have just been given included twenty countries while this one (Table II in the Appendix) includes nineteen countries and 170 commodities. The findings were expressed in relative terms with the United States as 100 and the year chosen 1937. Only six countries were found to have lower tariffs than those of the United States while twelve had higher ones. Even those who may criticize the methods used in calculating these percentages may concede that during the 1930's there was an increase all over the world in trade barriers (including protective tariffs) and that the relative position of the United States had changed.

Quotas on Imports. Tariffs on imported commodities are only one form of restriction. Unless so high as to be prohibitive, they do not prevent trade but merely reduce its volume. Commodities are free to enter provided the duty is paid. Another method of control is for the importing country to set an upper limit on the value or on the number of physical units or on the weight of specified commodities imported during some period of time. It is not a new device but it was employed very extensively between the two world wars. International cartels (considered in Chapter 29) have set quotas but we are concerned in this chapter only with governmental action. Quotas and ordinary import duties may be used separately or in many combinations. Only the general idea is described here.⁵ In 1937, there were twenty-five countries which had some form of import quota.⁶

If it be assumed that imports are to be restricted, quotas, if low, are more effective than import duties. The amount or value of imports is more rigidly set and an "unfavorable" or "passive" balance of trade can be sharply controlled. If prices are falling in the importing country, a rigid limitation on imported commodities will aid in checking deflation. Of course, too, domestic producers know under a quota system just how much foreign competition may be anticipated.⁷

If restrictions on imports are to be deplored, quotas will be viewed with concern as a radical and often rigid form of interference. More-

⁴ *How High Are United States Tariffs?*, New York, 1942.

⁵ For a detailed discussion of quotas and other trade barriers, see Gordon, Margaret S., *Barriers to World Trade*, New York, The Macmillan Company, 1941.

⁶ Dietrich, Ethel B., *World Trade*, New York, Henry Holt & Company, 1939, pp. 103-104.

⁷ *Ibid.*, pp. 104-106.

over, they require more administrative supervision, and "import boards" introduce a large degree of state control.⁸

Imports under quota may be subject to whatever duties are imposed on imports (tariffs) but there are several highly important differences:⁹

1. A quota sets rigid upper limits on the quantity that may be imported while tariffs do not. If an import duty is imposed the ordinary supply and demand factors operate. The supply coming from abroad will be less than it would be in the absence of a duty but lowered production costs abroad, higher production costs in the importing country, the elasticity of supply and of demand, and other influences, are free to operate. Equilibrium price may be at a higher level but there is no rigid limitation.

2. Producers in the importing country "will feel more secure" under a quota and may invest and expand more freely.

3. Producers in the importing country may combine to restrict output and maintain high domestic prices.

4. Under quotas the balance of international payments becomes more rigid. Even if import duties are high and imports are restricted, commodities still will enter under the stimulus of a rise in prices and tend to restore an upset equilibrium. Under quotas this cannot occur beyond the quota limits.

5. Under import duties prices in the different countries tend to be equalized since higher prices in the protected country will encourage imports to a point where they approximate prices in the exporting country. Under a quota there may develop wide differences in prices after the imports allowed by the quota have been received.

6. These price differences may mean large profits for traders in the limited amount of commodities permitted by the quota.

7. "The most-favored-nation clause is practically inapplicable to quotas and quantitative restrictions in general." This clause will be described later but it may be observed here that it is an attempt to avoid discrimination against any country as compared with another but with reliance on the price mechanism. While it has imperfections and may in actual operation be somewhat discriminatory in some of its effects, it is far less so than quotas. Under it importers of each foreign country have an equal chance in competition with those of other countries provided they can offer their goods at the prevailing market prices. The price mechanism determines the allocation of orders for imports. Under quotas no principle of allocation has been found or seems possible that will be nondiscriminatory.

⁸ See Beveridge, Sir William, and others, *Tariffs: The Case Examined*, New York, Longmans, Green & Company, 1931, chap. XVI, for a critical survey with adverse conclusions.

⁹ Haberler, Gottfried, *Quantitative Trade Controls*, Geneva, The League of Nations, 1943, pp. 20-27. The differences listed in paragraphs 1-10 have been condensed and to some extent adapted from this source.

8. Quotas lend themselves more readily to discrimination in the allocation of the amounts allowed to domestic importers and to the exporting countries than do ordinary import duties whose schedules are public.

9. Although quotas stabilize imports they do so by imposing a volume and pattern which cannot readily be altered to meet changing conditions.

10. Quotas leave great latitude to the executive branch of the government since legislative procedures are too slow for quick modification.

Exchange Controls. Again we find that the discussion of any one aspect of economics without reference to others with which it is inextricably involved is not easy. As yet we have not considered the intricate topic of money and the foreign exchanges, but trade controls are often exercised by controls over supplies of foreign exchange. Imports into any country must be paid for by delivering to the exporter in another country money he can use at home. Often, however, when an importer goes to his bank, for example, in Nicaragua, to buy a draft on, say New York, to use in payment for his purchase, he finds that the bank has only a limited supply of funds in New York on which to sell drafts. It is possible to sell these drafts indiscriminately, so long as funds in New York are available, on the principle of "first come, first served," but this might in some cases mean that importers of luxury or comfort goods would be able to get foreign exchange while importers of "necessities" would be left in the lurch. Moreover, the competition for "dollars" would tend to raise the price of dollars in terms of the Nicaragua unit (the cordoba) and cordobas would depreciate with all the consequences that follow.

Exchange controls are often established and administered by exchange control boards, which undertake to apportion the supply of foreign exchange in accordance with their instructions and their judgment. It may or may not be the case that the aggregate of imports is restricted but the effect of the controls is to influence the ways in which the available supplies are used.

Clearing Agreements. To this point the controls mentioned have been described as though they are entirely unilateral. This is not the case, and something will be said later about the ways in which even duties on imports are arranged on a bilateral or multilateral basis. First will be considered what are known as clearing agreements and compensation agreements. They are new devices whose extensive use is to be explained by the highly disturbed trade conditions that developed following the business crisis of 1929. For a variety

of reasons, such balances or near balances of payments as had previously existed were greatly upset. Trade continued to flow in considerable volume from A to B, perhaps, but the reverse movement from B to A was retarded. Sellers in A accumulated large balances in B which were "frozen" and this tended to restrict further movements.

Such conditions as these were to be explained by the highly involved economic situation of the period and were aggravated by some of the actions taken to secure relief. Higher import duties, quotas, and exchange controls had been introduced, but no matter how well intended they complicated and worsened the very troubles they were designed to alleviate.

All trade, it is said, is fundamentally barter. With this basic idea it seemed appropriate for country A to conduct negotiations with country B in order to reach some agreement regarding the volume of trade and especially methods of payment. A simple arrangement was for (say) Swiss importers of Austrian goods to pay for them by delivering Swiss francs to the National Bank of Switzerland. Swiss exporters to Austria would be paid by this same Swiss bank and in Swiss francs for the goods sold in Austria. Austrian importers of Swiss products and exporters to Switzerland would similarly deal with the National Bank of Austria. The two banks would then settle the accounts between them. If the balance became unduly high in one direction or the other, agreements could be reached between the two countries for an adjustment that would result in a better balance.

In some cases, as in the relations between Austria and Switzerland, there is ordinarily more trade in one direction than in the other — in this case toward Switzerland. Since a considerable amount of Austrian indebtedness was held by the Swiss, some of the balances that accumulated in Switzerland could be and were used for meeting debt service. The agreement between the two countries was accordingly a combination of clearing and payments agreements.

Compensation Agreements. Still another bilateral method used was the compensation agreement. While this term is employed in different ways, it is used here to describe the requirement that a particular exporter in country A may sell his product in country B only in case an arrangement can be made by either the exporter or the importer for a corresponding export of specified products of the same value from B to A. There are various and complicated

ways of applying this idea, but it is to be noted that the intent is to maintain an equality or as near an equality as possible in the transactions between the countries concerned.

Administrative Controls. In addition to the exercise of trade controls by the imposition of import duties, quotas, and so forth, there are many other measures employed. A suitable term to cover all of them is not easy to find. One possibility is "administrative controls." One writer¹⁰ has referred to these devices as "the invisible tariff." In many ways not formally set forth in published rates of duty, trade may be hampered. Every law must be administered, and, in the exercise of their authority, administrative officials can and often do restrict trade, notably import trade.

An illustration is to be found in the very proper attempt to prevent the importation of flora and fauna that are diseased. Efforts should be made to localize the depredations caused by injurious insects by preventing their spread to other countries. Contagious animal diseases, such as the foot-and-mouth disease, are to be dreaded and there can be no quarrel with the efforts of any country to debar products which carry them. "Dumping" (discussed in Chapter 23) can have such harmful consequences that laws against it are common, but its actual control must be dependent, under the general provisions of the law, upon decisions by administrative officials. In addition, there are an innumerable number of matters having to do with classification of imported products and the rates of duty that are applicable. The list is a long one and the reader is referred to the book by Dr. Bidwell which was mentioned in the preceding paragraph.

Proper and necessary as such controls may be, they permit a large amount of administrative discretion and make possible unreasonable or even unfair discrimination that often result in serious ill will and retaliatory action. If the exercise of political pressure seems desirable, a more stringent application of such regulations is always possible. More thorough and detailed inspection with consequent losses through spoilage or merely because of an extended period through which warehousing must be paid or a vessel is held in port before being unloaded are illustrations. The pernicious results that may follow warrant the conclusion that, just so far as possible, controls definitely should be incorporated in legislation rather than left to administrative action.

¹⁰ Bidwell, Percy W., *The Invisible Tariff*, New York, Council on Foreign Relations, 1939.

POSITIVE MEASURES OF ENCOURAGING EXPORT TRADE

“Protection” is a word with a favorable connotation. It suggests an attack against which defense should be provided. Most often this is thought of as an attack against the national economy by the external world economy, an attack in the form of commodities produced elsewhere whose importation would be injurious to the domestic economy or to some part of it. Protection against the attack is furnished by the negative measures just described. But the domestic economy may be protected not only by assistance in the home market but by aid in expanding its external markets. There, too, competition must be encountered and there are numerous devices employed which are of great assistance in making foreign sales. A few of the more important aids to export trade may be briefly described.

Special Freight Rates. First is the arrangement by which commodities destined for an export market are charged lower transportation rates than those for commodities to be sold at home. Often the cost of transportation is an important item. In many countries the railways are publicly owned and operated and in many others, for example, in the United States, they are subject to a considerable degree of government control. This facilitates the construction of schedules which give the exporter lower costs, at least for the domestic part of the journey. This device has been widely used and in many countries.

Assistance to Shipping. Shipping is a service and, as indicated in earlier chapters dealing with the international balance of payments, the amounts paid out or received are large. The aid given may be merely for the purpose of encouraging the construction and operation of vessels sailing under the flag of the protecting country or it may be given because it is believed that products carried in these ships will have an advantage in the world markets. Assistance may be granted in the form of favorable mail contracts or government loans at low rates of interest for construction, or there may be direct subsidies to the owners of the ships which will enable them to meet the rates charged by their competitors.

Export Subsidies. “Exports may be said to be officially subsidized when governmental action makes possible the sale of a good at a price that is lower than the price charged for the identical good on the home market at the same time and under the same circum-

stances, with due allowance for difference in transportation costs."¹¹ Direct cash subsidies to aid a producer meet with more public opposition than various forms of indirect aid, and hence have not been so extensively used. Business difficulties became so acute, however, subsequent to 1929, that direct aid was more readily approved. This was true in domestic affairs, as in the United States where assistance by the R.F.C., the A.A.A., and by other agencies was considerable. It was extended by many countries and in various ways to help foreign sales. South Africa granted subsidies to exports from 1931 to 1937 ranging from 10 per cent to as high as 35 per cent for beef and mutton. The United States has in recent years granted subsidies on the export sales of several products.

An interesting form of assistance to the export trade of the United States is the Webb-Pomerene Act of 1918. Within the United States the Sherman Antitrust Act of 1890 and related legislation make illegal "every contract, combination in the form of trust or otherwise, or conspiracy in restraint of trade or commerce among the several states, or with foreign nations." After the First World War, it was felt that United States foreign trade was at a disadvantage in competition with the large combines abroad, and the Webb-Pomerene Act was passed which exempted from the antitrust legislation any combination or association formed solely for the purpose of engaging in export trade.

Foreign Exchange Manipulation. Again reference must be made to foreign exchange but only briefly at this point. When a country, as Great Britain in 1931 or the United States in 1933, depreciates its currency in terms of the currencies of other countries, exports are encouraged. In fact, such depreciation is often defended on the ground that increased exports will result. Conversely, an appreciation of the currency will discourage exports but will encourage imports. Depreciation as in the case of the United States dollar by about 40 per cent may be as effective a curb on imports as a correspondingly great rise in tariff rates. Actually, it may be more so since tariff advances apply to particular commodities, while currency depreciation affects all or most transactions.

Conclusions. Protectionism even when considered only in its relation to commodity movements is highly involved. Broadly defined, it includes any and every device for aiding the domestic economy both at home and abroad. This aid may be direct or indirect, simple

¹¹ Gordon, Margaret S., *op. cit.*, p. 320.

or complex. It may be given without provocation from the outside or it may be defensive as when other countries resented the passage of the Hawley-Smoot bill by the United States in 1930.¹² It is an abandonment, at least in part, of the liberal attitude toward trade, a denial that laissez-faire should be the sole determinant of the amount, composition, and direction of trade, at any rate of foreign trade. To the extent that protection is granted in any of its forms, there is introduced the idea of viewing the national income as an aggregate for distribution in accordance with a real or fancied social gain.

SELECTED REFERENCES

Beveridge, Sir William H., and others: *Tariffs: The Case Examined by a Committee of Economists*. New York: Longmans, Green & Company, 1931.

Bidwell, Percy W.: *The Invisible Tariff: A Study of the Control of Imports into the United States*. New York: Council on Foreign Relations, 1939.

Dietrich, Ethel B.: *World Trade*. New York: Henry Holt & Company, 1939.

Gordon, Margaret S.: *Barriers to World Trade; A Study of Recent Commercial Policy*. New York: The Macmillan Company, 1941.

Grunzel, Josef: *Economic Protectionism*, New York: Oxford University Press, 1916.

Haberler, Gottfried: *Quantitative Trade Controls; Their Causes and Nature*. Geneva: The League of Nations, 1943.

Harris, S. E.: *Exchange Depreciation; Its Theory and Its History, 1931-1935*. Cambridge: Harvard University Press, 1936.

The League of Nations: *Commercial Policy in the Interim Period: International Proposals and National Policies*. Geneva: 1942.

Page, Thomas Walker: *Making the Tariff in the United States*. Washington: The Brookings Institution, 1924.

Taussig, F. W.: *The Tariff History of the United States*. New York: G. P. Putnam's Sons, 1931.

¹² See Jones, Jr., J. M., *Tariff Retaliation: Repercussions of the Hawley-Smoot Bill*, Philadelphia, 1934.

CHAPTER 22

ECONOMIC PROTECTIONISM: PRO AND CON

After an examination of the bewildering variety of "measures by which the national economy seeks to promote its interests in the world economy field," the student may find himself greatly perplexed. Particularly if he has been thoroughly indoctrinated in classical or neoclassical literature, he may conclude that the elaborate collection of protectionist devices is irrational and harmful; that it is to be explained solely by the success of pressure groups in securing national actions that aid those groups at the expense of society as a whole; and that every effort should be made to lower or to eliminate entirely all barriers to the movement of people, of commodities, and of capital across national frontiers.

This is the "liberal" attitude. Let each factor of production and each individual laborer or owner of land or of capital seek that use which will give the largest return. This return will be found through use where the highest payment of wages, rent, and interest is offered or where an excess above costs, that is, "profits," can be secured. The demands of society will be the major influence determining each of these returns and so the preferences and presumably in most cases the welfare of society will best be served by an absence of restraints. A few exceptions should be made. Traffic in certain harmful drugs or in women and children should not be permitted and in numerous other activities may be condemned and forbidden. These are, however, only exceptions. The rule is freedom from restraint.

Yet controls abound and are increasing in number. This was especially true in the years following 1929 and is even more the case during wars. But an examination of developments for the last hundred years shows that protectionism has been steadily gaining. The movement may be irrational or harmful but it is certainly persistent. Mere denunciation of the trend and abstract arguments against it, seem to have been ineffective.

The Growth of Collectivism. One interesting aspect of the situation in which we find ourselves is that so many "liberals" are in domestic matters advocates of increasing government controls. This is so much the case that much confusion has arisen over the term itself. Often it is synonymous with "progressive," and those who favor various social controls are referred to indiscriminately as either liberal or progressive.

This extension in the meaning of the terms has grown out of a conviction that economic life is now so complex that in many matters the individual cannot protect himself except through association with other individuals. There are individual enterprisers but partnerships abound and most business is today conducted by corporations. Laborers organize in unions, and consumers form co-operatives. Business society is not atomistic. The advantages of association are recognized in all directions.

Each group strives to further the interests of its members and does so in ways that often work against the interests of other groups and of unorganized individuals. Trusts and pools may aid their members but in ways that harm their customers. These abuses are the more serious as the density of population increases and the intricacies of modern ways of living add to our interdependence. As a protection we have turned to government and through its agencies find ways of guarding against the worst of the evils.

To protest against the predatory practices of "trusts" and to advocate more social controls over them is one sign of "liberalism." What was formerly a term associated with freedom from government restraint is now often used to describe the advocacy of collective action. It is mentioned here to call attention to the curious fact that often the advocate of international free trade is in favor of governmental controls in domestic affairs, while there are many supporters of high protective tariffs who bitterly oppose what they call "government interference" in other matters. It does not follow that consistency is to be demanded. It may be that "With consistency a great soul has simply nothing to do," but if inconsistencies are noted perhaps a more objective appraisal will be possible.

Assumption of Free Trade. Where lies the burden of proof? Is it correct to say that the assumption is freedom of trade and that the advocates of protection must demonstrate that restrictions are wise? Or is it appropriate to start with the assumption that controls are proper except in those cases where freedom is clearly better?

Economic society in western Europe and in the United States is said to be based on the freedom of individuals to do as they please except when the exercise of that right harms others. Accordingly, the burden seems to rest on the protectionists who must prove their case.

ARGUMENTS FOR PROTECTIONISM

Some of the arguments advanced have been weak. Since "protection" is a political issue this is to be expected. Appeals are made in order to secure votes. Logic is often sacrificed to emotion, since the latter is a more powerful stimulus to action than the former. Yet it does not follow that the case for protection is bad merely because its advocates have employed weak arguments in its support. One may disagree with Frederick List, Henry C. Carey, and Simon N. Patten, who believed in the use of a protective tariff, but one cannot properly brush them aside as unintelligent or naïve advocates of a thoroughly bad practice.

The Infant-Industry Argument. During the period of the Napoleonic Wars and particularly during the War of 1812 between Great Britain and the United States, manufacturing in the United States was stimulated. In 1815, however, the factories were small and weak and the revival of imports from abroad threatened them with a foreign competition that would have been destructive. They were infants and it was argued that a little aid would help them until they could attain maturity when they would be able to stand alone.

This was the infant-industry argument. A century later (as well as at many other times) the same argument was used in favor of protecting American manufacturers of dyestuffs against German competition. Before the First World War, this industry was strongest in Germany but at its end certain American manufacturers had started operations. They argued that a protective tariff for (say) ten years would give them time to accumulate experience and become thoroughly established.

It is to be noticed, first, that this is an argument that is ordinarily used in favor of protecting a particular industry and not in favor of protection in general. Second, it is an argument for only temporary assistance — during a period of infancy. When maturity is attained, the aid can be dispensed with. In reply, it is pointed out that for some reason infancy is always prolonged and the protected industry is never old enough and strong enough to give up protection. Pro-

tection to the manufacturers of textiles was not withdrawn after a few years but was continued in the legislation of 1818, 1824, and 1828. In fact, textiles are still protected. The same is true of the tariff on imported dyestuffs, of which the manufacturers are apparently still infants.

In the face of this failure to withdraw protection after an industry has had adequate time to attain maturity, critics find it easy to deride the argument and to allege that protection is retained even though not needed. This contention, however, overlooks one point that should be stressed. Costs are not the same for all producers. In an earlier chapter, we have noticed this in connection with agriculture. Some wheat land is well located and is very fertile with resulting low costs of production per bushel, while other wheat is produced at high unit costs. No matter how restricted the market or how high the price, some growers of wheat will be at the margin and usually some are producing at a loss. The same situation prevails in manufacturing. Even though some producers are making large profits, there are always apt to be marginal and even sub-marginal manufacturers. Higher prices merely attract others into the field and at any given time there are some who can truthfully say that they are losing money and that they "need more protection." Even if the industry is in control of a monopoly, there may be within the monopoly some plants that are marginal or sub-marginal.

The "Full-Dinner-Pail" Argument. This argument by its very nature makes a wide appeal. It is said that laborers in many foreign countries receive low wages and that the domestic worker, in the United States, for example, should be "protected" against their products. Every attempt should be made to raise and maintain the American standard of living and this can be done by protecting domestic producers who as a result will be able to pay high wages.

It should be easy to check these claims. If they are correct, perhaps wages will clearly be higher in protected industries than in others. In textiles and in steel manufacturing, workers are presumably paid higher wages than are workers in other lines where protection has not been provided. Doubts arise when we find that workers in these industries seem to be paid what employers find necessary in order to secure the desired number. The "law of supply and demand" is frequently derided as an ultimate explanation of any price, but apparently wages have some connection with the

number of qualified workers available at a given time for the jobs open to them. If the demand is for unskilled workers, of whom there are many, wages will be low. A survey of wages by industries in "normal" times does not show that the existence or extent of tariff protection results in a differential wage higher in protected than in unprotected industries.

This does not fully answer the argument, which has perhaps been incorrectly presented. Protection may not result in higher wages in protected industries than in those not protected, but the general wage level may be higher in a country like the United States than in another country which has "free trade." Wages in the United States, it is said, are higher than in Great Britain, and the United States has enjoyed the benefits of protection throughout its history. A glance at Tables 42 and 43 in the preceding chapter shows that Spain has had even higher protection than the United States and it is not claimed that as a result wages in Spain are high — but this may be an exception.

Perhaps what is meant is not money wages but real wages, and not the wages of any special group of workers but the aggregate national income, particularly that part of it which is paid out in wages and salaries. The analysis may start with an admittedly unreal and exaggerated illustration. The people of Canada ordinarily produce, among other things, wheat, lumber, and potatoes. They find, however, that they like bananas but dislike having to pay the people of tropical countries for them. Having decided to free themselves from this dependence, an import duty is imposed so high as to be prohibitive. Bananas are no longer imported but a stimulus is given to a local banana industry. Large numbers of workers are given employment and much capital is invested in the construction of elaborate greenhouses within which tropical conditions are simulated and bananas are grown. The cost and hence the price per banana is high, say a dollar per banana, as compared with the former price of one cent per banana, but bananas are raised and are available on the market. At so high a price the possession of a banana is something of a distinction reserved to the wealthier Canadians, who indulge in what Thorstein Veblen would have called the "conspicuous consumption" of a fruit formerly available to the proletariat.

There are fewer bananas available to the people of Canada. But labor and capital formerly used in other ways have been diverted

to banana-raising and as a result there are fewer bushels of wheat and potatoes and less lumber and other products than before. The aggregate product of Canada is less. The national income has been lowered. Smaller quantities of real income are available. No matter what the level of money wages, the total amount available for distribution has been reduced.

The Self-Sufficiency Argument. There may, however, be a gain to the people of a country in becoming "self-sufficient." This expression, like "protection," has a pleasant sound. The idea of self-reliance, of not being dependent upon others, is appealing. Yet we must not be led astray by slogans. The argument should be examined and should be stated with all fairness to its proponents.

A careful reading of the more extreme arguments for self-sufficiency¹ shows that complete self-sufficiency is not contemplated, but more of it than in the past. There are some things we desire that can not be produced within our own borders, that is, those of the United States, and some of our production that can advantageously be sold abroad. Also, there are "invisible" imports to be considered. If we wish to see the art treasures and the scenery of Europe and other lands, we must pay for the privilege and export something in return. Then, too, there are products like tin which we desire and which simply are not available within our own borders. To repeat, complete self-sufficiency is not advocated, but less dependence.

Thus qualified, the proposal is less fantastic. This is particularly so when it is presented as "self-sufficiency in time of war." In its most persuasive form, this idea confronted the British during the First World War. Two difficulties were faced. One was that their country had been relying upon Germany for supplies of some articles that were fundamental in the prosecution of the war, one of the most important being the optical glass used in gun sights. Also, they had been importing many articles that are basic even in peacetime production and found that under war conditions these supplies were less available than before. Some had come from countries which were at that time enemies of Great Britain. While others had come from countries that were allies or neutral during the war, communications were disrupted and supplies were cut off or were received in small quantities.

¹ See, among other presentations, Donham, Wallace Brett, *Business Adrift*, New York, McGraw-Hill Book Company, 1931, and Peck, George N., with Crowther, Samuel, *Why Quit Our Own*, New York, D. Van Nostrand Company, 1936.

This is but one illustration of the reasons why "self-sufficiency" in time of war is an appealing argument. Accepting the certainty or even a considerable possibility of future wars, it may be argued forcefully that a country should be prepared. Yet this is not the same as saying that the argument is conclusive. Two observations or difficulties are apparent. The first is that a state of preparedness for war may in itself even increase the possibility of a war for which the preparation is made. At any rate, during the Second World War it was often contended that Germany had for years been making herself less dependent upon other parts of the world and that such success as she had attained in doing so, merely encouraged her to start another conflict when she thought herself sufficiently strong to take the risk.

Some question this view, particularly so far as their own countries are concerned. But there is a second difficulty. War in the twentieth century is often called total war. There are not merely a few key products used but substantially all of the economy of a country is directly or indirectly utilized in prosecuting a war. The older distinction in international law between contraband and noncontraband is increasingly difficult to maintain since the number of items that must be classed as contraband has become almost all-inclusive. If protection is to be given to the production of all articles that are needed in war the list is nearly endless.

Another Argument: Equalizing the Costs of Production. Another contention is that import duties should be imposed when the cost of production in the importing country is higher than the cost of production in the country from which the goods come. It is often argued that when this is true the tariff should be made sufficiently high to cover the difference, thus putting the home producer and his foreign competitor on an equal basis.

Something has already been said of this view in the preceding discussion of the full-dinner-pail argument but there is much to be added. A distinction, for instance, should be drawn between "wages" and "labor costs." The two are not the same. If the wages paid in country A are \$5.00 per day and in country B only 50 cents per day, the cost of labor may actually be lower in the former than in the latter. The expense to the employer may seem high but he may be getting and often is getting far more from an employee to whom he pays \$5.00 than he would from ten workers to whom he would pay only 50 cents each. The quality of performance by the higher

paid worker may be so great that with higher wage rates there are lower labor costs. If for the moment we accept without question the argument that tariffs should be used to offset the difference in the amounts paid to workers, certainly the test should be "labor cost" and not "wage rates."

The argument we are now examining does this. Total costs are proposed as the test and duties are urged to cover the difference. What, if anything, may be said in reply? One answer is the fact that the proposal, if unqualified in any way, would lead to the cessation of all international trade. Unless costs of producing a commodity, say wool, in country B is higher than the cost of producing it in country A, there is no reason why B should purchase wool from A. Presumably prices charged must in all ordinary circumstances be high enough to cover costs defined in some way or other and including import duties. How difficult such a definition is will be considered later. Assuming that costs can be and are found to be equal, the inducement to exchange disappears and trade vanishes. There are, of course, a few products such as certain minerals which may not exist in country A but if they are to be imported, then A must export something in exchange. Unless A has some similar product, say another mineral not found in B, there is no way by which A can make payment.

Advocates of protection to cover differences in cost do not have such an extreme application in mind. They do not intend to advocate the complete elimination of international economic transactions.

Can Costs Be Ascertained? If economic society were completely laissez-faire, many difficulties would not arise which appear when social controls are attempted. An illustration is cost of production. In the absence of any effort by society to influence prices, each individual producer finds he must pay out certain amounts as wages, interest, and so forth. After a little experience he learns that he ought to allow for depreciation of equipment. He becomes familiar with the fact that some of his outlays are direct and that others are indirect or overhead. Yet his worries are on a somewhat limited scale and are his own. The costs of other producers concern him only in case they are so much lower than his own that he finds it impossible to compete with them. If he does not keep careful accounts or if he does not have a clear cost theory, he may win or he may lose but the rest of us are apt to be complacent.

As soon as social controls are attempted, some clear theory

becomes imperative and procedures must be devised for applying the principle that has been decided upon. It is often said that if the general theory is a satisfactory one it will be possible to overcome the difficulties in its application. Perhaps this is correct but the difficulties are sometimes serious. To make this clear, let us assume for a moment that we have agreed upon a meaning for the word cost and that we wish to ascertain costs of production of gloves in our own country, that is, the United States, and the costs of producing the same or a substantially equivalent article in France, with the intent of raising the import duty to cover the difference if the cost abroad is higher. Unfortunately, not all producers in the United States keep careful cost accounts and the same is doubtless true in France. Waiving this point, there is then the question of the means to be employed in securing access to the records of the French manufacturer.

Yet, the basic theory must be settled first. What is meant by cost of production? Presumably not the aggregate of disutilities involved, except as they are reflected in the monetary outlays or expenses of producers. But there are numerous producers of gloves of a given type and their costs differ. Some have lower costs than others. Which are to be chosen? If the costs of the lowest cost producers are accepted for the purpose, it may be found that "costs" in the United States are lower than in France and perhaps the tariff should be reduced. If it is found, however, that the existing rates are sufficient to equalize the costs of foreign producers with those of the low-cost American producers, the higher cost American producers may be unable to face the competition of the imported product.

If the costs of the highest cost producers are decided upon, encouragement is given to many manufacturers whose costs are high because of their inefficiency. Then, too, raising the import duty to the level required by this test may encourage other producers with still higher costs to enter the industry and demands will quickly appear for still another increase. If an average of costs is taken, all whose costs are higher than the average will be driven out of business. An answer may be found in choosing the costs of the "representative firm" or perhaps "bulk-line" costs but any decision reached is more or less arbitrary.

Costs Fluctuate. There is not only a difference in costs from one plant to another but the costs of each plant vary from time to time. One cause of such variation is the existence of indirect or "over-

head" costs whose aggregate (by definition) does not alter as volume of output increases or decreases. If the cost of producing a pair of gloves of a certain kind is found by dividing total outlay (both direct and indirect) for a chosen period, for example, a month, by the number of pairs produced during that month, the quotient will be larger if the plant is operating at part capacity than if it is operating at full capacity. Some assumption must be made.

There are other decisions to be made. Students of accounting know, for example, that gains or losses for a given year are influenced by the methods used in valuing inventories, in determining the rate of depreciation of equipment, and other procedures. Into these we shall not enter, but one other point should be mentioned. An illustration already given may be repeated. A number of years ago the writer found a member of the United States Tariff Commission trying to determine the cost of producing lemons in California. He was, of course, compelled to include among "costs" a proper rate of return on the investment in the land. What he was finding hard to decide was whether to allow this rate of return on a valuation of \$1,000 per acre, which had been its price a few years earlier, or on \$100 per acre, the price at which such land could be sold at the time of his troubles — the autumn of 1932.

Perhaps Costs Can Not Be Ascertained. The suggestion that costs may not be ascertainable is perhaps shocking to many. Accountants have developed elaborate systems of "cost accounting," and corporate reports present costs in profusion. That these calculations are helpful can not be denied. Neither can it be denied that the results depend on a multitude of decisions that in the nature of the case are more or less arbitrary. Shall inventories be valued on the theory of "last in first out" or in some other way? Should the "straight-line" method or some other be used in calculating depreciation? Should a fair rate of return be calculated on original cost or on cost of reproduction or on prudent investment or on some other basis?

These matters are not raised with the intent of settling them in this discussion but solely to emphasize the point that they are so numerous and so perplexing that the idea of settling import duties by noting differences in cost of production at home and abroad is not workable. Students of American experience in controlling rates charged by public utilities are aware that as yet satisfactory answers to many of these questions have not been found. Yet in the public

utility field, a large amount of uniformity in accounting methods has been imposed. In the wider business field we are discussing, far less uniformity prevails.

In an earlier chapter reference was made to the difficulty of allocating overhead costs even in the relatively small operations of a single business with a number of by-products. Attention also was called to the fact that with the growth of social controls or of collectivism, outlays that were formerly viewed (and properly so) as direct and variable for a private concern are persistent for society as a whole and are being more and more recognized as such. Also, it was pointed out that as each national economy tends to become unified all of the products of that economy, literally thousands in number, are by-products of that economy. The difficulty thus created was sufficiently elaborated in this earlier treatment.

Comparison of Costs. One other point must be mentioned. Let it be assumed that costs in country A and in country B have been satisfactorily determined. In each country costs and prices are expressed in terms of its own currency, say rubles in the one and dollars in the other. The cost of producing a ton of anthracite coal in the Soviet Union may be 20 rubles and in the United States it may be \$10. Which is the higher? If there were a "free" foreign exchange market in which different currencies were bought and sold, the question could easily be answered. But instead of a "free" market, we find foreign exchange controls, pegged rates, blocked funds. There is no way of making a comparison of costs in the absence of some method by which the value of one can be expressed in terms of the other. In but few cases, if any, can that be done today.

Present controls over the foreign exchanges may be abandoned. But will they? Formerly there were quite steady relationships between different currencies. Once upon a time the dollar contained 23.22 grains of fine gold and the pound sterling contained 113 grains, the latter being 4.8665 times as heavy as the former. There were "gold points," and the price of the pound in terms of dollars fluctuated within a quite narrow range. At the time this is being written the "mint par" for the pound is \$8.2397 but the "official price" is about \$4.04, at which it is "pegged." So long as there are official rates, exchange controls, and the like, cost comparisons, perhaps impossible under any circumstances, are quite out of the question. It remains to be seen whether we shall again have free foreign exchange markets like those of some years ago.

CHAPTER 23

ECONOMIC PROTECTIONISM: PRO AND CON . (Continued)

Arguments advanced in support of any proposal may be weak even though the proposal itself is meritorious. It has been suggested that often protectionism is defended in ways that make a wide popular appeal and the ones presented in the chapter immediately preceding are of that sort. The infant-industry, full-dinner-pail, self-sufficiency, and cost-equalization arguments are not strong. Convincing replies to them can be formulated even though few may be converted to free trade views. There may be other reasons for a protectionist policy which are not so easy to answer. Some of these will be considered in this chapter.

We are dealing with a world in which there are over 2,000,000,000 human beings whose levels of living are deplorably low, some 81 per cent of them having incomes per occupied person amounting to \$10 per week or less and 53 per cent of them having less than \$4.00 per week. They are scattered over a globe which has a circumference of 25,000 miles, and population densities which vary widely. Natural resources are not distributed as are people, and under the complex conditions of modern life dependence of each region on all others is very great. Certainly there should be every effort made to raise the levels of living everywhere. This calls for an enlarged production and a general freedom of exchange of whatever is produced and this in turn suggests that barriers to such exchanges should be minimized or entirely eliminated.

Usually the opponents of protection stop at this point. With the familiar ideas about specialization and exchange and with carefully worked out calculations of gains to be secured as shown by the doctrine of comparative costs, they are content. Yet the world ignores the argument and protectionism grows. Certainly there must be other reasons, good or bad, that we have not yet mentioned.

A start can be made by again noting that many opponents of

tion is one that makes unnecessary the determination of costs. It is comparatively simple to note the prices at which a commodity is sold in the two markets.¹ Proper allowance should of course be made for costs of transportation to the country of sale. It should be added that dumping thus defined may in many ways be concealed or disguised, but the statement still holds that it is easier to detect and measure than if it is defined as selling at less than the cost of production.

It may at first seem strange that there should be any objection to dumping. When it occurs, the importing country receives the commodity for less than it would pay if the same price were charged as in the markets of the exporting country. The terms of trade have been altered in favor of the importing country, which must export less than it would otherwise for what it imports.

Dumping, however, may be (1) sporadic, or (2) short-run or intermittent, or (3) long-run or continuous.² If it is sporadic, the effect in the importing country may not be serious for buyers there. Yet the effect even of sporadic dumping may be a matter of concern in the importing country to producers of the same or of a competing product. The buyer has a temporary advantage but his gain may be more than offset by the losses suffered by the domestic producers. The same may be said if the dumping is short-run or intermittent. The domestic producers lose without any long-run gain to the buyer or consumer. In fact, he may face a long-run loss if the sporadic or intermittent dumping forces the domestic producers out of business.

If, however, the dumping is continuous for an indefinitely long period of time, there is, to repeat, a change in the terms of trade to the advantage of the importing country. Arguments against dumping of this kind must be the general arguments in favor of protection.

Why should a producer dump his goods abroad? What has he to gain by doing so? Sporadic dumping may occur for many reasons, among them the desire to dispose of an accumulated stock which can perhaps be sold more readily in a foreign market than at home. Intermittent or short-run dumping may be carried on with the deliberate purpose of driving out of business competitors in the importing country. After this has been accomplished, the "dumper"

¹ For a general survey, see Viner, Jacob, *Dumping: A Problem in International Trade*, University of Chicago Press, 1923.

² See Viner, Jacob, *op. cit.*, p. 23.

may recover or more than recover a temporary loss by raising his prices to whatever level he thinks the market will stand, particularly if he is in a monopolistic or semimonopolistic position.

But continuous or long-run dumping does not necessarily mean even a temporary loss to the dumper. If a manufacturer is operating at only half of his capacity because the domestic demand will not absorb output at full capacity at a price high enough to cover his costs, he may gain by dumping. Assume a capacity to produce 100,000 units but a current output for the domestic market of only 50,000 units selling at \$1.00 each and at an average cost of \$0.90. Total costs would be \$45,000 and receipts \$50,000, a difference or "profit" of \$5,000. If full capacity operation were possible, the average cost per unit might be \$0.60 since the overhead would be spread over more units. Total costs would be \$60,000. If an extra 50,000 units could be marketed abroad at \$0.70 per unit, receipts from the foreign sales would be \$35,000, which, added to receipts from sales at home, would mean total receipts of \$85,000. With total costs of \$60,000 there would be a total gain or "profit" of \$25,000. Put differently, with an extra cost of only \$15,000, there has been an extra income of \$35,000 or a gain of \$20,000 from the dumping.

And who has been harmed? The domestic buyers are being charged no more than they would have had to pay had there been no exports and the exports could not have been sold except at the lower price which was quoted. True, a certain amount of raw materials, perhaps domestic, have been used up but there will presumably be an ultimate importation of \$35,000 worth of foreign goods in exchange. The foreign buyers have acquired something for less than they would have to pay to their domestic producers. Dumping has been possible because of the basically lower costs of large-scale production and no harm is done, unless, as pointed out, the dumping is sporadic or intermittent.

Exchange Dumping. Only a brief reference will be made here to what is called "exchange dumping." Some writers do not consider it to be true dumping but in any case it can be more clearly explained in Chapter 33 in connection with "Financial Mechanisms." This is not because it is unimportant, for it is one of the most powerful devices for furthering exports by political means. It can be better understood, however, after some preliminary explanations have been made.

Diversification of Production. In 1841 there appeared in Germany a work entitled *The National System of Political Economy* by Friedrich List. At that time the free trade doctrine of Adam Smith and his successors was dominant, but Germany was at a disadvantage in manufacturing. List had spent a number of years in the United States and had observed the operation of protectionism there and the rapid growth of that country. Rejecting the cosmopolitan outlook of Adam Smith, which contemplated freedom of commercial intercourse throughout an entire world undisturbed by war, List contended that nations are at different stages of development and a system suitable to one may not be the best for another. There are "degrees of culture." His own country at that time was largely agricultural and he urged economic protection as a device that would facilitate its growth into the agricultural-manufacturing-commercial stage.

Protection is thus not a device to be universally employed. It is an aid to progress for use by particular countries in certain stages of their progress in order to increase their manufacturing and commercial activities in competition with other countries which have progressed further. As an argument for consideration here, it has two features. First, as noted, it is neither universal nor permanent. Second, it is a large-scale infant industry argument.

But the point raised should be considered more at length. The free trade argument rests upon the basic idea of division of labor and specialization. In reply, it may be contended that there may be certain general disadvantages in regional specialization, as contrasted with the greater diversity of occupations and of interests in a region not devoted to a single line of production. Some of the reasons for this may be noneconomic and perhaps they should be given greater weight than the economic.

It also may be suggested that there are certain economic disadvantages connected with extreme specialization. Often these are found with individuals highly trained in some one line of work, as musicians, for example, who discover in our rapidly changing world that the demand for their services is not at all fixed. In the United States when silent moving pictures were general, orchestras were employed to furnish music during the performance. When the "talking pictures" appeared, musicians were no longer needed for this purpose and many found themselves quite unable to engage in other occupations. Intensive specialization worked to their disadvantage over a long period of time.

Whole countries may find themselves at a disadvantage if they have specialized to a high degree. Are we entirely sure that the British are in a strong position today because they have so small a percentage of their population engaged in primary occupations and such a high percentage in secondary and tertiary occupations? There are over 47,000,000 people in the United Kingdom whose livelihood depends on their ability to compete effectively with other parts of the world, some of which have distinct cost advantages over the British. Might not a smaller population, even with a somewhat lower national income, be in a stronger economic position?

Doubtless many will think the illustration a preposterous one. Then how about Cuba which is so strongly dependent on sugar — a monoculture country — or the Netherlands Indies, which has furnished nearly all of the world's production of natural rubber? Cuba during and immediately after the First World War enjoyed a period of amazing prosperity but with an increase in the world production of sugar, was plunged quickly into a prolonged and acute depression. During the Second World War great progress was made in the production of synthetic rubber. It is too soon to know whether the synthetic product will be a satisfactory substitute for natural rubber for most purposes or to speak with confidence about its costs of production. If, however, as has been currently suggested, costs can be lowered to 15 cents per pound the areas which have depended for their income on sales of natural rubber will be seriously affected. No area is literally one of monoculture but there are many which rely so fully upon one product that they are nearly so.

There are, in other words, areas which are dependent upon an uncertain demand. The demand may change with business conditions in distant parts of the world, conditions that are quite beyond the control of the monoculture country. Also, technological change is proceeding more and more rapidly. Reliance upon some one or a few products may be hazardous, and more long-run economic gain may be found in diversification. But how can this diversification be accomplished without protection of some type? And can protection be provided except through the traditional devices?

This presents an acute dilemma which is not easily solved. World interdependence is great as revealed by our examination of population growth and concentration and by the general restrictions on migration; natural resources, though constantly changing, are found

in such scattered areas and are produced at such widely different costs that their accessibility on reasonable terms is imperative if economic life is to continue along present lines and if levels of living are to be maintained or raised; each balance of international payments shows that every country relies on other countries for imports and exports both visible and invisible; and trade in commodities, no matter how its importance is stated, indicates a high degree of interdependence of each area upon others.

The other side of the picture is also impressive. Specialization means dependence, a dependence on conditions elsewhere over which the dependent area has little or no control. If business is active in the United States, there is, as in 1936 and the early part of 1937, a sharp increase in imports with a consequent stimulus to business in other areas from which the imports were secured. When business in the United States declines, as it did in the latter part of 1937, the repercussions elsewhere are profound. A period of speculation in that same country in the late twenties put money centers elsewhere under strain and roused intense resentment against the United States. There need be no surprise if many countries undertake to insulate themselves against the United States and other parts of the world economy by using protectionist devices. In the absence of a "world order" of some kind, nationalistic policies are to be expected.

It is not a complete answer to show that often the remedies applied have seemed to be worse than the disease. The domestic trend has been away from laissez-faire toward more national planning. A few years ago "economic planning" was derided, but today the expression has a certain amount of respectability. The movement is gaining ground. The task facing the planners is that of solving the dilemma that is posed. There are several alternatives. One is to adopt self-sufficiency, minimizing the extent of each country's dependence. A second is frankly to increase dependence by lowering obstacles to economic intercourse. The third, which is now struggling for recognition, is to seek for ways by which mutual dependence will be recognized but machinery devised which may regularize and steady that dependence.

Full Employment of Productive Factors. What has just been said leads to a consideration of another of the arguments for protectionism. It is contended that instead of decreasing the real national income, protection may result in a more complete employment of

the productive factors and hence give a larger total productivity than would otherwise be the case.

That the factors of production are not ordinarily employed to the full is clear.³ At any given time there are some units of land, labor, and capital not being used. The determination of the extent to which this is true is not easy. One reason is that there is no fixed amount of any one of the factors. For example, not all superficial areas of the earth's surface are "land," if by that word we mean a factor of production. Some areas have thus far not been used in production and probably some of them never will be used. Some that have been used have been discarded. Some pass in and out of use with changing demands and with technological development. Not all products of past labor for use in further production are usable. Some have become "obsolete" but in emergencies may be brought back to supplement up-to-date equipment. The supply of labor is not a definite number of laborers. As conditions change the number of workers constituting the "market supply" will be altered.

But even with this important explanation and with care in making calculations, there are at all times unemployed factors. Some who would like to work and are a potential labor supply can not find employment. Some well-equipped plants are idle because orders are lacking. Some quite usable land may at least temporarily be uncultivated. Especially during periods of business depression is this the case. At such times economic activity is apt to be low in other countries with accumulated stocks of goods seeking a market. Imports into one's own country at such a time will, it is said, prolong the period in which the productive factors will remain unemployed. Protective devices will, it is argued, keep out the foreign products and ensure an earlier return of idle facilities to active production.

To this there is added the insistence that full employment of productive factors is actually not "normal," if by that word is meant "usual" or "ordinary." It is argued that the older tendency in economic theorizing to view depressions as mere departures from the usual and to consider full employment of factors as normal has been wrong. Instead, their partial or incomplete employment is normal or usual.

In considering this argument one precaution should be recorded.

³ See Nourse, Edwin G., and associates, *America's Capacity to Produce*, Washington, The Brookings Institution, 1934.

If a protective tariff is imposed, it will presumably lessen the importation of the product upon which the duty is levied. There will accordingly be increased activity in the industry concerned. Indirect results, however, may follow. This reduction in the imports of one item or group lessens the funds available to foreigners for the purchase of exports. A decline in export orders will result in an unemployment of factors used in production for the export market, a reduction that may offset or even more than offset the gain in the industry protected. The argument carefully presented does not overlook this result and contends that the result of the protection is a general increase in production. It should be considered in connection with two other arguments advanced by advocates of protectionism.

"*The New Theory of Protectionism.*" In Chapter 21, Josef Grunzel's definition of economic protectionism was given and it may be noticed that we are attempting to keep its broad wording in mind even though we are at present discussing only the positive and negative measures applied to influence the movement of commodities in international trade. Josef Grunzel advances what he calls "the new theory of protectionism" in these words:⁴

Economic protectionism is directed to no other end than the securing of the domestic market to the business of a country by political means. Such a guarantee is necessary because any branch of production needs the largest possible stable market, and needs it the more urgently the more capital is invested in that branch and the more it strives toward specialization and reduction in costs. . . .

The home market is not pre-empted because a market in foreign countries is despised, but for the simple reason that it is subject to political control. In so far as it is possible to secure foreign markets, the conclusion of commercial treaties with other states serves this end.

This brings us back to certain matters repeatedly mentioned in earlier pages. There are two facts to be kept constantly in mind. One is that we are not living in an atomistic society in which each individual carries on business transactions with other individuals. Instead, human beings act in association with each other. Business is carried on for the most part by business corporations often brought together in holding companies or in other ways and for a great variety of purposes. They have the large investments of capital mentioned by Grunzel and their fixed or indirect or overhead costs

⁴ Grunzel, Josef, *Economic Protectionism*, New York, Oxford University Press, 1916, p. 132.

tend to become a larger percentage of their total outlays. Their managements may and probably are influenced by a desire to secure the maximum gain from their operations, but their continuous operation at or near full capacity is important to the general public as well as to themselves.

The second fact is that governments are exercising more and more controls with a tendency to unify each national economy more or less in opposition to the others and to treat the national income as an aggregate to be distributed in accordance with socially (or politically) determined standards. In domestic matters laissez-faire is being profoundly modified. It is scarcely to be expected that an opposite attitude will be taken in the international field. If governments do not intervene, for better or for worse, private business agreements will be entered into as in the past. The pressure for control, public or private, is so great that we need not expect individualistic, laissez-faire, competitive attitudes to prevail. As yet there is no world government to assume responsibility. Pending the establishment of a world authority, the only alternative seems to be some measure of agreement between governments, each of which may be expected to consider what it deems to be the welfare of its own citizens. Often, of course, this will mean not the "general welfare" but the advantage of the groups that are in a position to apply the heaviest political pressures.

Protectionism for Internal Stability. One other tendency is to be noted, not unrelated to the previous one, but calling for separate mention. It will be discussed again in a later chapter dealing with modern monetary policies. In many countries and notably in Great Britain, there is a belief that the people of any given country are suffering unduly from external disturbances. Conditions elsewhere, perhaps as in the United States from 1927 to 1929, over which outsiders, say the British, have little or no control, affect foreign exchange quotations, interest rates, and movements of gold and indirectly disrupt production. There is appearing a growing determination to sacrifice, if need be, some of the past freedom of economic intercourse with other countries in the hope that greater internal stability may follow.

SOME CONCLUSIONS

If by the "doctrine of comparative costs" is meant a statement in general terms of the way in which international trade is carried

on, then the theory is not an entirely accurate one. The determination of costs is increasingly difficult and is increasingly ignored. Unless costs are understood to include the extra expenditure involved in overcoming the barriers, such as the payment of import duties, the generalization certainly must be qualified and even then such obstacles as exchange controls and many quotas have not been adequately accounted for. If by the doctrine is meant an ideal against which we may measure actual trade behavior and calculate the economic loss sustained by not adhering to the ideal, there are still some qualifications to be recorded. Not only the size of the national income but the stability of that income is to be considered. Both are related to the extent and steadiness of employment of the factors. Full and steady (or at least fuller and steadier) employment of factors is dependent upon a continuing flow of orders. In other words, large and constantly open markets are increasingly imperative. To suppose that attempts will not be made to assure such markets is to be shortsighted in the extreme. Domestic markets are more readily made secure by various protective measures while foreign markets can not in a similar way be protected. If political means are not used, private business agreements will be arranged. There is little chance for "free trade" or even for much "freer trade," if all that is asked is a reduction of existing barriers.

In the next chapter we shall survey recent and current commercial policies. This one may be concluded by observing that in this twentieth century the world is experiencing a revolution in its economic and political institutions. The nineteenth century is gone. What is ahead of us is largely unknown. In what particulars our thought and our actions must be adjusted, no one can say. Presumably we shall need much of the theorizing of the past. But with the accelerating tempo of modern life, more rapid adaptations are needed. Between the two world wars, increasing tensions and an unprecedented world depression caused the erection of trade barriers to levels that can be defended for the long run by none of the arguments for economic protectionism. Now that the war has ended, there will be an opportunity for an approach that will more fully take into account the economic and political changes of the last century. But any proposals that are made must include a recognition of the new place of government as an active participant in economic life and of the urgent need for different political relationships in a world the area of which in square miles has not altered

but which for economic and business purposes has shrunk to but a small fraction of its former size.

SELECTED REFERENCES

Condliffe, J. B.: *The Reconstruction of World Trade*. New York: W. W. Norton & Company, 1940.

Jordan, David Starr: *The Fate of Ictidorum*. New York: 1909.

List, Friedrich: *National System of Political Economy*, American ed. Philadelphia: 1856.

Patten, Simon N.: *Economic Basis of Protection*, 2nd ed. Philadelphia: 1895.

Manoïlesco, Mihaïl: *The Theory of Protection and International Trade*. London: P. S. King & Son, 1931.

Viner, Jacob: *Dumping: A Problem in International Trade*. Chicago: University of Chicago Press, 1923.

CHAPTER 24

COMMERCIAL AGREEMENTS AND GROWING DIFFICULTIES

Economic protectionism has been shown in the two immediately preceding chapters to be a very broad concept. It embraces the totality of measures, both positive and negative, that are employed to further the interests of the national economy in the world economy field. The existence of the national economy is recognized as is the responsibility of its government for furnishing protection. Whether the measures employed actually do aid its people is another matter, but two comments may be recorded. One is that the assistance given by means of both positive and negative measures ordinarily worsens the terms of trade for the country employing them. They encourage exports by offering them to others on better terms than would otherwise prevail. Imports that surmount the barriers cost more than would have to be paid were there no protection. Since barriers to imports are the more common, the tendency of protectionism also is to lessen the quantum of trade.

A second comment is that there may be advantages. Thus the immediately higher cost that may be paid for imported commodities may be offset by more steadiness and regularity of business in the long run if the protection given really produces some of the results claimed for it. Moreover, there may be noneconomic reasons why economic independence is preferred to economic dependence. A final conclusion can be reached only by weighing against each other many opposing considerations, and some of them are of such a nature that quantitative expression is entirely impossible.

Yet this does not prevent some conclusions. Real wages are not raised by protection but are lowered, since the national income is reduced. Infant industries do not attain maturity and in the nature of the case can not do so. The broader infant-industry argument of List is likewise weak if tested by experience, for even countries most advanced in development show no disposition to abandon

protection but seem instead to increase it. Self-sufficiency to any important degree is a mirage in a world as interdependent as that of the twentieth century.

In order to attain adequate diversification, some countries would be compelled to protect so many industries and to such a high degree as to reduce sharply the national income. The gain of greater stability is at the best dubious and would be attained, if at all, at a very high cost. The claim that full employment of the factors of production can be secured behind protective barriers has not been conclusively demonstrated. It seems probable that a temporary increase in their employment might follow a raising of barriers, but continued full employment is another matter. Theorists are still not in agreement over the causes of the business cycle. Also, national economic planning has not yet been developed to a point where any one can assert that even price fluctuations can be satisfactorily controlled. In short, we are living in a highly interdependent and rapidly changing world and our knowledge of how to direct it is still but meager.

One other observation should be made. The liberal era was brief. Those who hoped for a world of *laissez-faire* and of free trade were doomed to disappointment. The trend was soon reversed and one writer has said:¹ "It looks today as if the Victorian epoch of *laissez-faire* were but a brief interlude between two long periods of collective regulation." The twentieth century is witnessing a gigantic struggle to correct the institutional lag from which the world is suffering as it has in other periods. One aspect, but only one, is the growth of economic protectionism on a national basis to a point where the endeavor of each to protect itself is not bringing real protection but is increasing economic and political strains. Yet the answer is not to be secured merely through efforts to lower the barriers. Changes in political relationships, far beyond the scope of this volume, are involved.

Unilateral Action. In political theory, each state has "sovereignty, independence and equality." There is no limit to what each may do within its own jurisdiction, even though its actions may profoundly affect the people of other countries. Subject only to self-imposed limitations or to agreements voluntarily entered into for specific purposes and for limited periods of time, it may take such actions

¹ Cole, G. D. H., *British Trade and Industry; Past and Future*, New York, The Macmillan Company, 1932, p. 22.

as it sees fit and does so unless fear of retaliation or of force dictates otherwise. As many have pointed out, the codes generally accepted as governing private conduct are conspicuous by their absence in the relations of states with each other.

Thus a state may enact legislation not only to govern the movements of its own nationals, but restricting or even forbidding immigration. It may similarly impose restraints upon the entrance into its area of capital or of commodities from the outside. This carries with it, of course, the right of other countries to impose similar restraints.

While the right to act independently of the attitude of others is basic, practice is by no means in strict accord. Retaliation is always possible and may be feared. Also, favors of many kinds are desired from other countries and it is by no means advisable to be arbitrary. Strictly unilateral action without any regard for the effect on other countries is not the usual practice, but difficulty is to be found in the search for commercial policies of any country in which there is no sign of unilateral pressures by it on others.

Several illustrations of unilateral action may be mentioned. During war, the blockade of an enemy's ports is common as is seizure and confiscation of contraband. The United States undertook an "economic boycott" of England and France by means of the Embargo Act of 1807 and only a few years ago refused to sell helium gas to Germany. At the end of the First World War various economic measures were imposed upon Germany whose signature to the Versailles Treaty was given under compulsion.

Bilateral Action. More common are bilateral and multilateral agreements. They shade into each other and often contain many points which reveal the power of one of the parties to apply pressure to the other or others. Nevertheless, the existence of an agreement is an evidence that each of the parties thereto is compelled to recognize, even if only to a moderate degree, the existence and bargaining strength of the other.

Brief descriptions have already been given of clearing agreements and compensation agreements. They are definitely bilateral. Other examples may be added but with the reminder that they are illustrations only and not an attempt to compile a complete list.

Because of disturbed economic conditions throughout the world there was a strong tendency after 1929 for each country to seek methods by which it could protect its interest in a specific way.

In 1936, the United Kingdom and Argentina entered into the Rocca Agreement.² This provided that the sterling exchange received in payment for exports from Argentina to Great Britain should be made available for specified purposes. The order of priority as set forth in the agreement and in subsequent negotiations under it was: (1) deduction of a reasonable amount for the servicing of the Argentine public debt held outside the United Kingdom; (2) imports of United Kingdom products into Argentina; (3) freights; (4) interest on debentures and other loans; (5) private British remittances; (6) payments of dividends on preferred and ordinary shares of British companies operating in Argentina.³

It will be noticed that this bilateral agreement has some points of similarity with clearing and payments agreements. Comparable though not identical agreements were entered into by the United Kingdom and a number of other countries, the general purpose being to attempt a balancing of payments due to and from the other countries even though the interests of third parties were affected adversely. Thus the Scandinavian countries were required to secure more of their coal from Great Britain, although this was to the disadvantage of Germany and of Poland, which had been supplying coal to Scandinavia. In the treaty with the Soviet Government in 1934, it was provided that payments to the United Kingdom were to be brought gradually into a balance with reverse payments, until after 1937 the relationship of 1 to 1.1 was to be maintained.⁴

This brief reference to treaties entered into by Great Britain should not be interpreted as meaning that she was the only country employing such methods or that they are confined to the period just preceding the Second World War. During the prevailing world depression, there was heavy pressure on all countries and an increase in bilateral agreements. Not only Great Britain, but France, Germany, the United States, and other nations, for various reasons and in varying degrees, resorted to practices which had some points of similarity but which varied widely in emphasis and very widely in the spirit of their application.

² This agreement is one in which the bilateral agreement was of a comparatively mild form and should not be thought of as closely similar to such comprehensive and harsh agreements as were imposed by Germany during the Nazi regime.

³ Taken in part, with a few modifications of phraseology, from Dietrich, Ethel B., *World Trade*, New York, Henry Holt & Company, 1939, p. 144.

⁴ Gordon, Margaret S., *Barriers to World Trade*, New York, The Macmillan Company, 1941, pp. 408-415.

Multilateral Action. Emphasis has already been placed on the triangular or multilateral nature of international trade. Each bilateral approach has a tendency to reduce the aggregate of this trade, a fact that is clearly recognized by statesmen as well as by students, even though there are many bilateral agreements with their restrictive features. There is a recognition of this in the usual tariff legislation which sets a schedule of duties to be levied. (Export duties are relatively unimportant and, unless otherwise indicated, import duties are meant.)

Autonomous Tariffs. If customs duties are fixed by a legislative body, the action may be called *autonomous* and to a degree it is, of course, unilateral. *Conventional* is the term applied when the duties are imposed by agreement with other countries. There may be a *single* schedule of rates applicable to all imports from whatever source. The *double* tariff may be a list of maximum rates for general application and a list of minimum rates for countries with which special agreements are made. The two lists may be specified by the legislature or the maximum may be thus imposed while lower rates may be conventional, that is, decided upon by special agreement. There are also *multiple* tariffs used where there may be an area, such as the British Commonwealth, of which some of the members may give special rates to other members through a preferential arrangement.

The Most-Favored-Nation Clause. In commercial agreements it is common to include what is ordinarily called the most-favored-nation clause. This terminology may be misleading and one writer⁵ suggests "the equally favored nation clause" as better. However, the first term can not well be avoided, since it is so commonly used.

As with other matters, practice is highly involved but we shall notice only the leading purpose and forms. The purpose is to assure each of the two parties to the agreement that it will secure at least as favorable treatment as may be granted later to any third party.⁶ In the past, the approach has sometimes been unilateral, as in commercial agreements between Western countries and others not in a strong bargaining position. Illustrations are found in past agreements between the United States, and China, Egypt, and other nations. In such instances, the weaker party agreed to extend most-

⁵ Culbertson, William Smith, *International Economic Policies*, New York, D. Appleton-Century Company, 1925, p. 57.

⁶ For a general discussion see Culbertson, William Smith, *op. cit.*, chap. III.

favoured-nation treatment, but the stronger party made no reciprocal promise. While these illustrations are of older treaties, there have been more recent ones. The peace treaties at the end of the First World War required the defeated powers to grant for a time unconditional most-favored-nation treatment to the Allied and Associated Powers which, however, assumed no reciprocal obligation.

Ordinarily, however, the clause is so worded as to make the obligation reciprocal. While it appears in bilateral agreements, the intent and the effect of the clause is to generalize any benefits that may be granted subsequently by either of the two parties to a third. Since this is the case, the clause may be discussed as a multilateral approach.

Obligations thus assumed may be conditional or unconditional. For 145 years, until 1923, the United States favored the conditional form because it seemed to offer the greater advantages to that country. Its nature and purpose may best be made clear by the following extract from the treaty of 1911 between the United States and Japan: ⁷

Except as otherwise expressly provided in this Treaty, the High Contracting Parties agree that, in all that concerns commerce and navigation, any privilege, favor or immunity which either Contracting Party has actually granted, or may hereafter grant, to the citizens or subjects of any other state shall be extended to the citizens or subjects of the other Contracting Party gratuitously, if the concession in favor of that other State shall have been gratuitous, and on the same or equivalent conditions, if the concession shall have been conditional. (Article XIV.)

This obligates each party to extend to the other any more favorable terms granted to a third party but with the recognition that such favorable terms may have been either gratuitous or conditional. If of the latter sort, then the United States, for example, will grant similar favors to Japan only in the event Japan can grant to the United States the same or equivalent concessions as were granted by the third power.

It is not our purpose to survey the history of this clause or detail the difficulties involved in its application. Quite suddenly, in 1923, the United States abandoned its former attitude and has since then advocated the unconditional most-favored-nation clause, a change that came presumably because the conditional clause seemed the better bargaining device when her exports were chiefly food and

⁷ Culbertson, William Smith, *op. cit.*, p. 61.

raw materials, while the unconditional had superior advantages as exports of manufactured goods increased.

An illustration of this unconditional form may be given by quoting Article I from the trade agreement between the United States and Peru, signed on May 7, 1942:

With respect to customs duties or charges of any kind imposed on or in connection with importation or exportation, and with respect to the method of levying such duties or charges, and with respect to all rules and formalities in connection with importation or exportation, and with respect to all laws or regulations affecting the sale, taxation or use of imported articles within the country, any advantage, favor, privilege or immunity which has been or may hereafter be granted by the United States of America or the Republic of Peru to any article originating in or destined for any third country shall be accorded immediately and unconditionally to the like article originating in or destined for the Republic of Peru or the United States of America, respectively.

As already stated, the most-favored-nation clause, in either of its two main forms, tends to generalize any reductions in the restrictions named therein, particularly where the form is unconditional. In Chapter 25, it will be pointed out that, rather surprisingly, the opposite result has occurred in connection with certain efforts to enter into regional agreements. For the moment, however, we shall notice only the obvious purpose of the clause.

After the First World War there were two economic tasks to be performed. One was to repair the actual physical destruction, to rebuild. Needless to say, this was costly and time consuming. It was less serious, however, than were the troubles arising out of the economic dislocations. These were numerous. Among them were the losses of old markets and the appearance of new competitors, the strains being aggravated by unbalanced national budgets, depreciated currencies, and new debtor-creditor relationships, both public and private. That efforts would be made to lessen the strains was to be expected, and that trade barriers would be employed for the purpose was not surprising. Yet the net result of the many devices employed was to restrict rather than to expand the total. An examination of the amount as given in Table 31 in Chapter 16 shows that for a time there was an increase but it was not adequate.

Concern was shown in many ways. Numerous international conferences were held in the hope that the growth of barriers could be stopped, among them a conference in Genoa in 1922 and one in Geneva in 1927. At the latter the judgment of the delegates was

recorded in favor of the most-favored-nation clause in the following words:

Lastly, commercial treaties should contain the unconditional most-favored-nation clause in its broadest and most liberal form, and the League of Nations is recommended to consider the possibility of establishing clear and uniform principles in regard to that clause and introducing common rules relating to commercial treaties.

In another paragraph is found the statement:

The Conference declares that the time has come to put an end to the increase in tariffs and to move in the opposite direction.

Little or nothing was accomplished by the passage of such resolutions. A few observers felt that although trade barriers continued to rise there was a slight retardation in the advance. In any case they rose, and another attempt at general agreement was made at a conference held at London in 1933. This brought no results and obstacles to trade increased rather than diminished.

Opposition to the Most-Favored-Nation Clause. The Geneva Conference of 1927 engaged in strenuous debates over the most-favored-nation clause but the report in which it was so strongly endorsed was unanimously adopted. At that time approval was general and opposition to it was usually considered reactionary. Only a few years have passed but much has happened. One cause for the reaction against it is the fact that it has been an obstacle to the operation of certain efforts at regional agreements.⁸ Another is the growing sentiment in favor, not of economic self-sufficiency, but of what was described in Chapter 21 as an effort to lessen the extent to which the domestic economy is disturbed by conditions outside it. There are also operating all of the motives that have led to the erection of trade barriers in the past.

To illustrate this attitude, reference may be made to the views expressed by the Federation of British Industries in a report issued in 1944.⁹ Doubtless the motives of its authors are mixed but their conclusions are worth recording. They believe that Great Britain will face acute trade difficulties in the years just ahead and that "jungle law should be replaced by planning designed to raise world prosperity by orderly methods." Acknowledging that they "repre-

⁸ See Chapter 25.

⁹ *International Trade Policy*, Report of the F.B.I. International Trade Policy Committee, London, February, 1944.

sent the interests of manufacturers and sellers of goods," they emphasize "the necessity of achieving a domestic policy of full employment." Specifically they advocate, among other steps:

1. A continuance of the special arrangements for trading between countries of the sterling area.
2. Control of imports, preferably by quantitative limitations rather than by tariffs.
3. "A new and more workable system of world trade which would render the Most-Favored-Nation Clause unnecessary."

Attention is drawn to this report, which has brought an unfavorable response from business men in the United States, because it is in some respects revolutionary. It is doubtless to be explained in some measure by the usual desire for protection but it records an acceptance of a considerable measure of national economic planning. Also, it opposes the most-favored-nation clause, which only a short time ago was almost universally endorsed.

We are brought back again and again to one of the most difficult of current economic issues — how to provide those domestic social controls now generally demanded, controls which for the most part must be exercised by national governments, and, at the same time, how not to impose undesirable restrictions upon international economic transactions. One answer is to urge the removal or at least sharp reduction of trade barriers — to advocate "liberalism." If this course were followed, each national economy would be exposed to external influences beyond its control and its domestic program would be affected and perhaps endangered.

Another answer is greater isolation or self-sufficiency or autarchy. While the losses from such a policy would be less severe for countries like the Soviet Union and the United States, they would be acute for Great Britain. The report just cited states:

To import even on the pre-war scale, Great Britain must increase its visible exports of goods by at least 40 per cent to 50 per cent over the pre-war level.

For a country with a foreign trade in 1938 of \$11,625 per square kilometer and of \$80.37 per capita, with imports which were 16 per cent of the national income, and with exports which were 8 per cent, any policy that would hamper foreign trade would have the most serious repercussions. There is almost a certainty that such meas-

ures as the ones proposed, if adopted unilaterally, would bring retaliatory action by other countries.

Quantitative Trade Controls. Import duties have certain characteristics as a device for protecting the domestic economy. To the extent that they are effective, the entry of foreign products is lessened and domestic producers can secure higher prices because of the curtailed supply. In some particulars they are less effective than quantitative controls which limit the aggregate physical amounts, or occasionally the values, of imports (or exports) during a specified period of time. They may be combined with ordinary tariffs, that is, the goods covered by the controls may pay the ordinary duties.

Import duties operate within the framework of what is usually called the individualistic economy and the price system. Unless they are so high as to be prohibitive, their effect is merely to curtail the supply of foreign products offered in the domestic market. Foreign goods may and do enter in such quantities as market conditions permit and are sold at whatever price can be secured. If demand in the importing country rises, prices advance and imports increase. If demand falls off, imports decrease. If costs fall in the importing country, foreign products find it harder to meet the competition and enter in smaller quantities. Similarly enlarged or diminished production abroad because of changed costs or some other influence, will affect exports to the country imposing the duties.

Quantitative controls are different in that they set a fixed upper limit regardless of "supply and demand." When that limit is reached, imports are stopped and the domestic producer faces only the supplies offered by his domestic competitors. This makes it possible for him to calculate more accurately and plan his own expansion with greater certainty. The consumer, however, is denied the restriction on price advances that would come if imports could increase the market supply as prices rise.

Part Four of this volume considered balances of international payments. It was noted that under the usual supply and demand influences there is an observable tendency, although one often not adequate, for a disturbance in equilibrium to be restored by certain "automatic" forces. A fall in prices in country A encourages exports from that country to B where prices are higher. This tends to bring prices in A and B more into line. With only ordinary tariffs as obstacles, there is a considerable flexibility in trade, and equilibrium

is re-established. But quantitative limits on the movement of goods introduce rigidity.

Yet, between the two world wars these controls rapidly increased; this occurred shortly after the First World War, and then they subsided. Following the crisis of 1929 there was another advance, in spite of the fact that in principle all governments seemed to be opposed to the device. The reason is to be found in the disturbed economic relations within and between countries. Business had declined. Many countries lacked foreign exchange and sought relief in pushing exports and in curtailing imports. Everywhere producers in all lines found goods accumulating in the face of a curtailed demand. Each producer desired all possible relief from the competition of foreign products.

Tariffs could be and were raised, as by the Smoot-Hawley Act of 1930 in the United States, but there was a vast amount of what was called "overproduction" and producers were everywhere seeking markets, abroad as well as at home. As has been pointed out, tariffs operate within the price system and accumulated stocks were offered for sale at reduced prices. A further complication was the existence of many commercial agreements containing the most-favored-nation clause and in its unconditional form. Duties specified in any one agreement were automatically generalized.

Application of this clause to quota restrictions is not feasible, even though such restrictions are contrary to the spirit of the clause. The Economic Committee of the League of Nations observed: ¹⁰

Quotas, no matter how excellent may be the intentions of the countries imposing them, necessarily compromise the very object of the clause, which is equality of treatment. Up to the present, no system has been discovered by which quotas can be allocated without injuring the interests of countries entitled to benefit under the most-favoured-nation clause.

As one economist states the difficulty: ¹¹

Various systems of quota allocation have been proposed as non-discriminatory but none is satisfactory. Equal quotas for all countries are clearly inequitable. Allocation in proportion to imports from different countries in some base year is unsatisfactory and unjust in the case of crops which fluctuate from year to year. In the case of industrial products too it is liable to get more and more out of date, as the underlying situation changes.

¹⁰ *The Most-Favoured-Nation Clause*, Geneva, The League of Nations, 1936, p. 13.

¹¹ Haberler, Gottfried, *Quantitative Trade Controls: Their Causes and Nature*, Geneva, The League of Nations, 1943, pp. 25-26.

Trade Agreements Program of the United States. Difficulties mounted rapidly after the economic collapse of 1929. In frantic attempts to improve conditions within each country, economic protectionism was increased. The London Economic Conference of 1933 was a failure, but even before that year the seriousness of the situation was appreciated. Unilateral actions and bilateral agreements together with quotas multiplied in number with a stifling effect on trade. It seemed important to find a way by which concessions could be made to the bilateral approach but without an abandonment of the advantages of multilateral trade.

Under the leadership of Secretary of State Cordell Hull of the United States, such a compromise was sought in the Reciprocal Trade Agreement program. By an act of Congress passed in June, 1934, which was in form an amendment of the Tariff Act of 1930, the President was given power to:

1. Enter into trade agreements with foreign governments or instrumentalities thereof.
2. Proclaim such modification of existing duties and other import restrictions, or such additional import restrictions, or such continuance, and for such minimum periods, of existing customs or excise treatment of any article covered by foreign trade agreements, as are required or appropriate to carry out any foreign trade agreement that the President has entered into hereunder.

The President was not authorized to raise or to lower existing rates of duty by more than 50 per cent, nor to transfer any article between the dutiable and free lists. He could recognize treatment by other countries that was discriminatory against the commerce of the United States. Cuba was given a special position. The duties and other import restrictions agreed upon by treaties with particular countries were to be generalized, which meant the use of the most-favored-nation clause. One of the most important features was that under this act it was not necessary to refer the contemplated agreements to the Senate for ratification.

Negotiations were at once started under this act, and by 1939 agreements had been entered into with twenty-one countries. The general result was the careful reduction of a large number of duties. There are many studies of these agreements and, as was to be expected, strong opposition by critics and strong defense by proponents. To state the stimulus to trade in quantitative terms is not simple, for as always in such matters other influences are con-

tinually present. Thus, business revival in 1936 and in early 1937 increased imports into the United States for reasons already stated, but imports later fell as business receded. Though there was no trade agreement with Japan, exports from the United States to that country advanced because of Japanese preparations for war.

Necessarily, these agreements were entered into with care. Sweeping and indiscriminate reductions in duties would have aggravated the depression from which the United States was suffering and would have been opposed bitterly by protected groups within the country. Discretion was used in reducing duties on imports that would compete seriously with domestic production. When important reductions were made on particular items, "key" or "chief supplier" foreign countries were chosen, since any lower duties specified would at once have been applicable to all other countries with which the United States had agreements containing the most-favored-nation clause. But with all these and other limitations, the net effect was salutary. Yet international tensions, political and economical, were mounting, and the small amount that could be accomplished through these agreements was inadequate in the face of other and more powerful forces.

Not all the twenty-one agreements were in effect all of the time and since 1939 their operation has in many instances been of little significance. It is worth while, however, to record the calculations of the Department of State as made public in a statement on December 1, 1939, from which these facts have been taken. The tabulation "includes the 17 countries (and colonies) with all of which agreements were in operation during the greater part of 1938." It should be pointed out that the Department of State specifically points out that "no claim is made that this entire trade increase was due to the advantages obtained by the United States in trade agreements." Congress has from time to time renewed the authorization to enter into these trade agreements. The latest of these authorizations was in 1945 and permits the lowering by 50 per cent of the level of duties effective on January 1 of that year. This, it will be noticed, allows reductions that amount to more than 50 per cent from the rates in the Smoot-Hawley Act of 1930 on those items for which reductions had already been made under the act of 1934 and its previous renewals. In the case of those commodities on which a reduction of 50 per cent had already become effective, a further

similar reduction would result in a rate of only 25 per cent of those in the act of 1930.

TABLE 44
CHANGES IN FOREIGN TRADE OF THE UNITED STATES WITH TRADE
AGREEMENT AND NONAGREEMENT COUNTRIES

(In millions of dollars)

	1934 and 1935 aver- age value	1937 and 1938 aver- age value	Increase	
			Value	Per cent
Exports including re-exports				
Trade agreement countries	759.8	1,224.8	465.0	61.2
Nonagreement countries	<u>1,448.0</u>	<u>1,996.8</u>	<u>548.8</u>	<u>37.9</u>
Total	2,207.8	3,221.6	1,013.8	45.9
General imports				
Trade agreement countries	793.9	1,073.6	279.7	35.2
Nonagreement countries	<u>1,057.4</u>	<u>1,448.5</u>	<u>391.1</u>	<u>37.0</u>
Total	1,851.3	2,522.1	670.8	36.2

Blocked Accounts. Brief reference should be made to blocked accounts which, now that the war is over, are a disturbing factor, and are affecting the recovery of trade. These accounts were particularly brought to world attention by Germany. The Nazi ring-leaders of that country were soundly and properly condemned for the economic practices which they followed that gave but little observance to the recognized standards of governments and of business. Yet they called attention forcibly to the fact previously mentioned, that the gain is not directly from exports but from the imports received in return for them.

German procedure was to purchase products in other countries, paying for them with German funds that could be used by the foreign owner only when and for the purposes allowed by the German Government. The general practice was to insist that they be used to purchase specified German products only and at prices largely dictated by the Germans. The commodities specified were ones which Germany desired to sell and were often obsolete or otherwise unsatisfactory. The Germans secured the imports they desired and on terms favorable to themselves.

During the Second World War, blocked funds were accumulated in large amounts, notably in Great Britain and in the United States. Some of them belong to governments and nationals of enemy or nonfriendly countries, some to occupied countries, some to friendly

neutrals, and some even to the Allied countries. Billions of dollars were involved. Assuming the continuance of fairly stable political and economic conditions in the postwar years, these funds will start outward. Some may be used to acquire gold for export, some to purchase goods in the countries where the funds are now held. Their effect on trade will be great.

To some this trend will be welcome, for example, to exporters whose orders will be increased. But this increase in orders will add to the difficulties of preventing an undesirable rise in prices in the United States, for example. The American exporters will be in a difficult position because there are blocked sterling credits in Great Britain belonging to nationals of other countries and these sterling credits will doubtless be used in large measure to buy British products. This will involve the British and American producers in trade rivalry for foreign markets in a trade war.

For the British there will be a complication which will be important and, as they may view it, more serious for them than for the United States. It has been pointed out that Great Britain has for many years had an excess of imported over exported commodities and that the difference has been covered or more than covered by certain invisible items, notably receipts from shipping services and interest on foreign investments. These invisible exports, particularly the interest on foreign investments, will be reduced, and it is currently stated by the British that in order to acquire adequate foreign exchange to maintain imports at the level of past years, merchandise exports must be raised by from 50 to 60 per cent above former levels. In addition, there are hundreds of millions of pounds sterling credits accumulated by foreigners who during the war furnished supplies to Great Britain with payment postponed. These blocked funds are now usable for the purchase of British products, although such use may be restricted for a time. This will intensify the competition between British and other exporters but will not furnish the British with the foreign exchange needed to pay for imports.

Access to Raw Materials and Foodstuffs. Before concluding this chapter, a few more words should be said about access to raw materials and foodstuffs. For many years there have been charges by some countries that they are hampered because they do not have within their own borders an adequate amount of these commodities and that restrictions and discriminations prevent their securing them from the outside. In Part Three, especially in Chapter 11, this

charge has been mentioned and it was there pointed out that the number and variety of raw materials and even of foodstuffs is so great, and the sources of supply are so widely scattered, that no one country can have political control over all of the areas upon whose resources it is dependent.

The charges referred to appeared just after the First World War at the time when there was great concern expressed over the growth of world population and the possibility that the number of people would outrun food supplies. This seems to have been owing at least in part to the illusion created by the rise in prices, which gave the impression of a shortage and was followed by the opposite extreme when prices fell and there seemed to be a greater production than could be consumed. Then, as international tensions developed, much was heard of the "have" and the "have not" countries.

That relief, if needed, has not and probably will not be secured by migration has been made clear in Part One. But it is still widely believed that there are restrictions on access to food and raw materials that warrant the complaints that were made particularly by Germany and Italy. Point is given to this view by one of the pledges made in the Atlantic Charter of August 14, 1941:

FOURTH, they will endeavor, with due respect to their existing obligations, to further the employment by all States, great or small, victor or vanquished, of access, on equal terms, to the trade and to the raw materials of the world which are needed for their economic prosperity.

This is a pledge for the future but is presumably made because of the view that in the past some states have not had "access, on equal terms, etc." Attention to "trade," by which is supposedly meant markets in which goods are sold, has occupied us for several chapters. But how about access to raw materials? Has there been discrimination in the past or is there likely to be discrimination in the future? What is meant by "access on equal terms"?

Because of the charges that were then prevalent, the Assembly of the League of Nations in October, 1936, requested the Council of the League to appoint a Committee for the Study of the Problem of Raw Materials and this committee submitted its report in September of the following year.¹² Since this report is fairly recent and was directed to the question we have raised, its conclusions may be summarized. Inequality in the distribution of raw materials was

¹² *Report of the Committee for the Study of the Problem of Raw Materials* (1937. II. B. 7), Geneva, 1937.

recognized as was the difficulty experienced by many countries in securing all the raw materials they desired. Also, a few restrictions imposed by producing countries were noted but only a few instances were found which could be criticized as unreasonable. The committee urged the value of assurances that discrimination would not be practiced but gave as its general conclusion:

There is no doubt that there is an inequality in the distribution of raw materials and that certain countries have particularly serious difficulties in supplying their requirements. . . . But the only general and permanent solution of the problem of commercial access to raw materials is to be found in a restoration of international exchanges on the widest basis.

Access on equal terms presumably does not mean that total cost of acquiring a raw material is to be the same for all purchasers since distance and resulting transportation costs must be considered. Presumably there would be a reasonable ground for complaint if the price charged, say, for natural rubber at the port of export in the Netherlands Indies, were higher for Germans than for nationals of Great Britain or of the Netherlands. Such discrimination has not in the past been practiced in time of peace and for substantial reasons. We have not had an economic organization that encourages such practices. Producers are desirous of selling at the prices that will give them the highest net gain, and the inducement to discriminate between buyers does not exist.

Buyers, however, vary in their "need" for particular materials, some desiring more jute, others more rubber or cotton, and so forth. Also, they differ in their ability to make payment in the foreign exchange they have available and this in turn is related directly to restrictions or discriminations imposed on the marketing of their own products. If Germany had a grievance, it should have been voiced against the obstacles encountered in marketing her products abroad and in thus acquiring adequate foreign exchange with which raw materials could be purchased.

This has to do with the past, and conditions in the future may be different. Efforts may be made to limit in one way or another the access of "aggressor nations," particularly to those raw materials which are useful in preparation for war. Attention will be given to this in later chapters.

SELECTED REFERENCES

Culbertson, William Smith: *International Economic Policies; A Survey of the Economics of Diplomacy*. New York: D. Appleton-Century Company, 1925.

Dietrich, Ethel B.: *World Trade*. New York: Henry Holt & Company, 1939.

Gordon, Margaret S.: *Barriers to World Trade*. New York: The Macmillan Company, 1941.

Haberler, Gottfried: *Quantitative Trade Controls: Their Causes and Nature*. Geneva: The League of Nations, 1943.

The League of Nations: *Report of the Committee for the Study of the Problem of Raw Materials*, Series of League of Nations Publications II. Economic and Financial (1937. II. B. 7). Geneva: 1937.

CHAPTER 25

REGIONAL AND OTHER SPECIAL AGREEMENTS

No completely satisfactory classification of trade relations is possible. Each state is involved in a maze of treaties and agreements of many kinds and its attitude is constantly shifting as new conditions arise. It should not be supposed that a discussion can easily be presented that will be all-inclusive nor that any one country is involved in just one type of arrangement with others.

Yet there are certain dominant forms that must be mentioned. Some have been described but there is one more which will be considered in this chapter — the regional agreements. They call for attention for several reasons. First, they have often been used or attempted in the past. Second, there are many in existence or under discussion in the present. Third, some observers who advocate one or another type of world order, hold that it should be one which permits or even provides for regional groupings within the larger framework. While the world is so interdependent that what happens in any one area is of concern to all, some issues that arise are peculiarly local and can best be handled by agreement between the countries immediately involved, subject perhaps to reference and approval by a general world authority.

REGIONAL AGREEMENTS IN THE PAST

On many occasions contiguous countries have entered into economic arrangements which were or seemed to be mutually advantageous. This is because such countries ordinarily have common frontiers or they have interdependent economies or perhaps a common language or similar national traditions. Sometimes one of these considerations and at times another or a combination of them are the explanations. The agreements reached have frequently been on minor points but often they have been quite comprehensive. Only a few of the more important will be mentioned with no attempt at a thorough account.

The Zollverein. In the nineteenth century, one of the best known was the "Zollverein" or customs union of the German states. It was a somewhat gradual development and arose out of the strains resulting from the existence of sixty different customs systems and tariff walls. A series of treaties was developed until by 1834 customs barriers had disappeared throughout most of Germany. An annual customs conference was held and its decisions, at first, had to be unanimous, each member having one vote, a difficulty which was later modified. The Zollverein continued until the merger of the German states into the Empire in 1871. It attracted wide attention and led to the advocacy of similar arrangements in many other parts of Europe.

PROPOSED CUSTOMS UNIONS

There have been many proposals for other unions, some of them grandiose and others more modest. Their general purposes have been either to alleviate the economic friction between contiguous or otherwise interdependent countries for their mutual gain, or to protect the countries included against some part or all of the external world economy, or for both of these purposes. For example, as early as 1889 a customs union to include the United States and Latin America was under discussion.

Central Europe or Mitteleuropa. One of the most ambitious and best known of these plans was presented by Friedrich Naumann,¹ who proposed a grouping of states stretching from Scandinavia to the Near East. It included a vast area which would have been a barrier separating eastern from western Europe and would presumably have been dominated by Germany. Usually it is thought of as a part of the German *Drang nach Osten*.

Pan-Europe. More recently an Austrian, Count Coudenhove-Kalergi, has urged a still larger grouping, one that would have included all Europe, and this idea for a time received not only private but much official notice. One of the most picturesque presentations was by Francis Delaisi, a French economist,² who argued that there are two regions in Europe that are complementary to each other. One includes the western and northwestern countries, which are dominantly industrial, and the other is the eastern and

¹ *Mitteleuropa*, Berlin, 1915, which appeared in English translation as *Central Europe*, London, 1916.

² *Les Deux Europes*, Paris, 1929; not available in English translation.

southeastern countries, which are largely agricultural. Both regions, he contended, would benefit by combining.

Many believe that Delaisi's study was influential in leading Aristide Briand, the Foreign Minister of France, to present the general idea in 1930 to other European states. In that same year, the Assembly of the League of Nations referred it to a special committee for study. At this time, however, political and economic tensions were so rapidly increasing that the idea had no chance for favorable consideration. We can only speculate about the possibilities of its adoption had the time been more propitious, but it seems quite improbable that it would have been acceptable even under the most favorable circumstances.

There have been many other less ambitious plans, all of which merit thoughtful examination as possible devices for lessening strains by reducing economic barriers. Among them are a Danubian Union, a Scandinavian Union, and current ones for a Central Europe.³ Judgment on each as a separate proposal seems to be divided. During the years of the Second World War, interesting agreements were arranged between some of the governments in exile. One was between Czechoslovakia and Poland and another between Yugoslavia and Greece with the hope that all four could ultimately be brought together. Recent developments seem to make impossible or certainly improbable the carrying out of this plan.

SOME RECENT FAILURES AT REGIONAL AGREEMENT

The Anschluss of Germany and Austria. Discussion in preceding chapters will help to appraise several attempts at regional agreement which have been unsuccessful. One proposal was for an *Anschluss* between Germany and Austria. Because of certain provisions in the peace treaties at the end of the First World War, the plan was referred to the Permanent Court of International Justice which ruled against it in 1931. Regardless of any economic arguments in its favor, the decision of the court was final and illustrates the fact that it is quite impossible to separate economic from political and legal considerations.

Ouchy Agreement. Extracts have been quoted in previous paragraphs from the resolutions passed at the International Economic Conference held at Geneva in 1927. Among them were declarations

³ For example, Jordan, Peter, *Central Union of Europe*, New York, Robert M. McBride & Company, 1944.

in favor of the lowering of trade barriers and in support of the most-favored-nation clause in commercial treaties. In 1930, Belgium, Luxemburg and the Netherlands entered into what was known as the Ouchy Agreement, an arrangement which illustrates the clash or, at least, the possibility of a clash between the two ideas. This agreement contained four features:⁴

1. Not to increase existing tariff levels against any country.
2. To reduce tariff levels between themselves by a considerable amount in successive stages over a period of five years.
3. To invite any other country to enter the agreement on similar terms.
4. To admit to the agreement not only countries observing conditions similar to those adopted by the original participants but also countries which, without complying with the specific conditions, had tariff rates at least as low as those fixed in the agreement.

This seemed to be a practical application of the idea that "the time has come to put an end to the increase in tariffs and to move in the opposite direction." The countries involved were contiguous, small, few in number and had many mutual interests. Yet the obstacle to the successful operation of the agreement was the most-favored-nation clause which also had the unanimous endorsement of the Geneva Conference of 1927. Each of the "Ouchy" countries had commercial agreements with other countries containing this clause, which meant that it was obligated to extend to each of these other countries any reductions it allowed to its associates in this special agreement. Moreover, this reduction would have been obligatory even though the other country did not associate itself with the general Ouchy program. The sweeping reductions in tariffs thus forced would have been too great for the three small countries to meet. It is said that Great Britain's unwillingness to waive its treaty rights was the chief obstacle to success.

The Oslo Agreement. Another effort was made in 1937 by the same three countries joined by Sweden, Norway, Denmark, Finland, and the Netherlands Indies. The group was larger, and an attempt was made to avoid the complications of the most-favored-nation clause. This was done by omitting any scheme to reduce duties and by agreeing not to raise them. The countries signing the agreement which had quota restrictions agreed to abolish them, while the others promised not to introduce them.

⁴ See Richardson, J. H., *British Economic Foreign Policy*, New York, The Macmillan Company, 1936, p. 120.

It will be noticed that the most-favored-nation clause was an obstacle, at least, to the lowering of existing tariffs. At best, the salutary effects of the Oslo Agreement would have been limited: the trend of world trade, which had been upward, was reversed in the latter part of 1937 and when the agreement expired in July, 1938, it was not renewed.

IMPERIAL PREFERENCE

The various arrangements thus far described in this chapter have been regional. The parties to them were relatively small countries and had common frontiers. Because they were (or are) near each other their economic relations were close, and barriers of any kind not only add to delays in carrying on business but make for special irritation. While multilateral trade has been and is a leading and economic way of maintaining equilibrium in the balance of international payments, still bilateral trade is considerably larger in amount than multilateral and is apt to be particularly large between adjoining countries. Hence, the tendency to make regional arrangements.

But there are other causes for modifications of general trade policy. A given country may make special adjustments with its colonies. As already pointed out, this is not usually in the form of lower prices to purchases by nationals of the mother country. Instead, there are often special advantages through exchange controls, shipping charges, and other devices and especially some tariff or other preference in the sale of goods from the one area to the other.

One illustration will suffice and that one of the most important in recent years. In the British Empire or, better, the British Commonwealth of Nations, there have for a long time been preferential arrangements and these were definitely extended in 1932 by the Ottawa Agreements. Lest it be supposed that the members of the British Commonwealth have been the only group to employ these devices, it should be emphasized that particularly since 1931 comparable arrangements have been common. These arrangements are varied in form and in the combination of countries included. Among them have been multiple tariff systems, devices for protection against foreign exchange dumping (discussed more fully in Chapter 33), and so on. Preferences within the British Commonwealth

are only an illustration though one of the most important because of the area, the populations, and the trade involved.

For many decades prior to 1919 the emphasis in the British Empire was on the open door or on low tariffs. After that date the movement for preference gained strength. The Dominions had increased their industrialization and had developed their own tariff systems. In the meantime, there had been a persistent growth in the United Kingdom of agitation for "tariff reform" and then for outright protection. Beginning in 1877 the Dominions had introduced some preferential arrangements for British products, and after the First World War the idea of more sweeping imperial preference, which had been earlier urged but rejected, gained in favor. The McKenna duties of 1915 had been accepted largely because of war conditions, but the Safeguarding of Industries Act of 1921 went further. Free trade was still dominant but was weakening. Many British industries were depressed as were considerable areas dependent on those industries. Step by step the barriers to imports were increased and in March, 1932, the Import Duties Act imposed with a few exceptions a 10 per cent ad valorem duty on all goods imported into the United Kingdom. Goods from the colonies were not included and imports from the Dominions were temporarily exempted because of the plans for an Imperial Conference to be held in July.

The Ottawa Agreements. Against a background of economic dislocation which was world wide, of a considerable growth in the bargaining strength of the Dominions, and of persistent distress in the United Kingdom, an Imperial Economic Conference was held at Ottawa in the summer of 1932.

Formal tribute, much of it doubtless sincere, was rendered to the principle of lowering trade barriers as a stimulus to commerce. But in addition to the usual arguments for protectionism, there was the bald fact of a widespread depression, perhaps the worst from which the world had ever suffered. The United States had recently adopted the Smoot-Hawley Act and, everything considered, it could hardly be expected that the British Commonwealth would not move in the direction of more restrictions.

The actions taken may be briefly summarized. The United Kingdom did not reduce its tariffs but in some instances actually increased them, although Empire products were widely exempted and some new or revised duties were imposed with preferences for Dominion

products. The Dominions agreed to give certain preferences to United Kingdom products.⁵

Eleven bilateral agreements were reached at Ottawa and legislation was later passed in accordance with them. The net result was not a lowering of trade barriers within the Commonwealth but an appreciable increase in barriers against other countries. As a result there was soon evident a gain in trade within the group at the expense of trade with the rest of the world. It is not, of course, correct to consider the Ottawa Agreements as the only ones of the sort. There are, for example, those of France with her colonies. Those entered into at Ottawa are illustrative and probably of most interest to American readers.

SOME COMMENTS ON REGIONALISM

It is easy to criticize the United States for its tariff policy and to condemn the actions taken at Ottawa. The trend seems clearly to have been to raise barriers, not to lower them. But it is only fair to keep in mind what has been said repeatedly and in various ways throughout this volume. First, this world is large in area and has over 2,000,000,000 inhabitants whose incomes are deplorably low, no matter what standards are used in appraising them. Second, a world government has not been formed and if as a result of the Second World War a world order of some kind comes into being it can not for a long time become powerful and, if it ever does, the economic difficulties it will face are intricate and baffling. Third, the tempo of economic change is being accelerated so rapidly that society finds strains in adjustment as well as in the restrictions imposed by policies of protectionism. Fourth, organization, both political and economic, is still on a national basis with the powerful support of strong national loyalties. These may be expected to find expression in demands for protection of the citizens of each national group against outsiders.

Advantages of Regionalism. While the world area is vast, each part is so dependent on every other part that the people of any one country, the United States, for example, can not be completely indifferent to what occurs in the most distant places. The assassination of an archduke or friction between Germany and Poland or

⁵ For more details, see Gordon, Margaret S., *Barriers to World Trade*, New York, The Macmillan Company, 1941, pp. 458-463, and Dietrich, Ethel B., *World Trade*, New York, Henry Holt & Company, pp. 249-254.

an incident at Marco Polo Bridge may sooner or later involve Americans in war. This suggests that the people in each part of our interdependent world should concern themselves with everything that occurs in every other part of the world, no matter how distant.

Yet Americans find it difficult to have judgments about quarrels between Croats and Slovenes or the boundaries between Poland and Russia. The British thought of the Manchurian incident of 1931 as too remote for active attention and some of them could not appreciate the vital significance to them of resisting the pressures of Germany on Czechoslovakia in 1938. Apparently we must realize that there is somewhere a dividing line between matters that are of local concern and those of world-wide significance. There always will be borderline cases and never a complete agreement as to where the line should be drawn.

There is no escape from this predicament. At the best there may be some relief from it if some of the matters that are local can be adjusted by the countries that are most immediately affected. Often there is a common denominator of interest within a region that may be utilized as a basis for adjustments that may be of little or no concern to other and especially more remote countries. If Czechoslovakia and Poland can agree to stabilize the currency of each in relation to the other or to eliminate passports or to unify their transportation systems, why should they not be encouraged to do so, unless there is clear evidence that their agreements are directed against other countries? A local understanding is less cumbersome and may affect in no way whatever the vital interests of China or of the countries of South America. If some form of general world order can be established to which such agreements could be referred, many of them would doubtless be approved as not of general concern.

Some Warnings against Regionalism. That regional agreements may work to the disadvantage of others has been shown by some of them that have been tried. Certainly the Ottawa Agreements just described were of that sort. If the admonitions of Prime Minister Stanley Baldwin at the opening of the conference could have been heeded, barriers to trade with countries outside the Commonwealth would not have been raised and any preferences granted would have been in the form of a reduction of barriers within the group. While the *Anschluss* between Germany and Austria proposed

in 1931 did not materialize, there are grave reasons for fearing that, if it had, the arrangement would have been directed against other countries and not limited to freer trade between the two immediately participating. The sort of regionalism sought by Japan in the Far East clearly would have worked against the interests of others; it did work against the interests of China.

This brings us to a consideration of such proposals as those for a federation of all of the countries of Europe. With the recurrence of strains and with two world wars in a quarter of a century both of which started in Europe, there is a fascination for many people in the idea of a European federation. That there are difficulties in a world with fifty or sixty different states is clear. But would a grouping of the sort proposed by Coudenhove-Kalergi and others be better?

Perhaps the inquiry is futile, since for the present there seems to be no probability or even possibility of such an organization. Also, such a federation would have political as well as economic implications. This volume is a study of economics rather than of politics, but the two can not be completely separated. We may, however, place the emphasis on the former.

The point raised may be illustrated by turning attention for a moment to the Far East. In that region the Japanese were clearly endeavoring to enlarge their influence by extending their political and military controls and also, when in a position to do so, as in Manchuria subsequent to 1931, by discriminatory economic treatment. The United States has long urged the "open door" in the Far East, particularly since that principle was pressed upon other countries in 1900 by Secretary of State John Hay and accepted by them. There can be no doubt that the Japanese concept would instead have been that of a regional area with preferential treatment for themselves and against others in trade and investment.

It does not follow necessarily that a European federation would be developed along similar lines. Yet, under certain conditions, it might so develop. Even if we are not unduly influenced by the present general condemnation of Germany, it is hard to escape the conclusion that the German approach would be one of restriction. If a federation were formed in which Germany was dominant, it would in all probability be characterized by discriminations against other areas. Both her political strength and her industrial development have been such that she would probably impose her ideas on

the others in such a federation. Yet, because of her recent defeat, there is no probability that she will be able to seize such leadership for many years to come.

Standards for Regional Agreements. There are, however, advantages in regionalism if certain conditions are observed. The first is that there should be a real community of interests among the countries included and that membership should be voluntary and not compulsory.

Second is the condition that the actions taken to increase economic intercourse within the group should not raise the barriers against others. The Ottawa Agreements of 1932 resulted in more trade within the British Commonwealth and to this there can be no objection. But this was accomplished by a system of preferential arrangements which raised the barriers against outsiders.

Third, regional agreements should be operative within the larger world framework. Properly devised, they can be of vast aid in lessening economic tensions. Improperly directed, they can add to them. By voluntary submission to any world order that may be established or through compulsion to submit to one, there will be safeguards against agreements that will merely mean the organization of larger economic areas in opposition to each other. There are difficulties in operation for a world with some fifty or sixty states each acting more or less independently. If the next step should merely be their combination into say five or six groups, either through political consolidation or by regional economic arrangements, the rivalry between these few large units may be more bitter and more disastrous than that of the past.

Regionalism and the Balance of Payments. In discussing the "balance of international payments," it was pointed out (1) that most of the data available have of necessity been assembled on a national basis, but (2) that such regional analyses as have been made show that the world is now so interdependent that no region can become entirely independent of others. The same conclusion was drawn from the sections on natural resources and in this one on trade. Literal self-sufficiency or even a considerable degree of it can not be attained. If regional agreements are so drawn as to increase trade between the participants by raising barriers to trade with outsiders, troubles will be multiplied, not diminished. British imperial preference is an illustration.

A struggle is on which involves money, investments, and trade.

Within each country there is a growing conviction that individual security must be enhanced and that to some extent past insecurity has been the result of influences operating from the outside. Accordingly, attention is being given to the insulation of each national economy from the world economy, through "managed money" and otherwise. Collectivism is gaining ground.

The other aspect is the extreme dependence of each country and of each region. No one of them can function smoothly by itself. Only through a recognition of this dependence and through a balancing of national collectivism with the world economy, can the desired results be secured. Regional agreements can be an aid but, if improperly developed, they may add to world economic strain rather than help to relieve it.

SELECTED REFERENCES

Basch, Antonin: *The Danube Basin and the German Economic Sphere*. New York: Columbia University Press, 1943.

Condliffe, J. B.: *The Reconstruction of World Trade*. New York: W. W. Norton & Company, 1940.

Coudenhove-Kalergi, Richard N.: *Pan-Europe*. New York: Alfred A. Knopf, 1926.

Delaisi, Francis: *Les Deux Europes*. Paris: 1929.

Jordan, Peter: *Central Union of Europe*. New York: Robert M. McBride & Company, 1944.

Naumann, Friedrich: *Central Europe*. London: 1916.

Pasvolsky, Leo: *Economic Nationalism of the Danubian States*. Washington: The Brookings Institution, 1928.

Spykman, Nicholas John: *America's Strategy in World Politics*. New York: Harcourt, Brace & Company, 1942.

Tasca, Henry J.: *World Trading Systems; A Study of American and British Commercial Policies*. Paris: The League of Nations, 1939; also New York: Columbia University Press, 1939.

PART SIX
CAPITAL MOVEMENTS AND
ORGANIZATION

CHAPTER 26

AMOUNT OF FOREIGN INVESTMENTS

No one knows with any precision just how many human beings there are in the world. Censuses are taken only at intervals of several years and are always imperfect, and in countries where there are no such enumerations only estimates are available. Similarly, it is not at all possible to state the location and value of the world's natural resources except in a qualified way, or to know the amount of trade that is carried on. The reasons for these deficiencies in basic figures have been given in preceding chapters. Nevertheless, enough is known to permit a general survey and to suggest a few conclusions. Even greater difficulties are encountered when capital movements are considered. The flow of investments and the resulting accumulations are not easily calculated. Why this is so will appear as we proceed.

ESTIMATES OF AMOUNT

Some countries are borrowers and some are lenders, some are debtors and others are creditors. By countries are meant individuals and corporations within those countries and, in some cases, governments. Also, it should be noted that some countries fall in both groups, just as any one of us as an individual may be both debtor and creditor. Any one country at any given time is apt to be predominantly in either the debtor or in the creditor classification although shifts back and forth may frequently be taking place.

Since the amount of investments is not easily determined, it is not reasonable to expect a high degree of agreement among students, nor need we be surprised if they insist that they are giving approximations or if they present a range between high and low amounts or if from time to time they revise their calculations. An investigator finds that much of the information he desires is not available. Some of his conclusions are inferences from other data. Then, too, he has many general questions to settle in deciding what amounts to record, since prices, rates of return, and so forth, are continually changing.

One estimate is presented in Table 45. It is the world total long-term investments by investment areas, as calculated by Eugene Staley. There is also presented in Table 46 his estimates of the same type of investments by lending countries. It will be noticed that the aggregate by investment areas is \$54,600,000,000, while that by

TABLE 45
WORLD TOTAL LONG-TERM INTERNATIONAL INVESTMENTS BY
INVESTMENT AREAS, 1929-1930

<i>Investment areas</i>	<i>Amount</i>
Canada	\$6,100,000,000
United States	4,700,000,000
Australia	3,800,000,000
China	3,300,000,000
Germany	3,200,000,000
Argentina	3,100,000,000
India	2,800,000,000
Brazil	2,600,000,000
Mexico	2,300,000,000
United Kingdom	1,900,000,000
Malaya	1,600,000,000
South Africa	1,500,000,000
Cuba	1,300,000,000
Chile	1,300,000,000
Japan	1,300,000,000
Belgium	1,200,000,000
Spain, Portugal	1,000,000,000
Others	11,600,000,000
Total	\$54,600,000,000

SOURCE: Staley, Eugene, *War and the Private Investor*, New York, Doubleday, Doran & Company, 1935. The table is slightly condensed from the figures in a chart (page 13).

TABLE 46
WORLD TOTAL LONG-TERM INTERNATIONAL INVESTMENTS
BY LENDING COUNTRIES, 1929-1930

<i>Lending countries</i>	<i>Amounts</i>
Great Britain	\$18,200,000,000
United States	14,700,000,000
France	3,500,000,000
Holland	2,300,000,000
Switzerland	2,000,000,000
Belgium	1,500,000,000
Germany	1,100,000,000
Japan	1,000,000,000
Sweden	500,000,000
Others	2,700,000,000
Total	\$47,500,000,000

SOURCE: Staley, Eugene, *War and the Private Investor*, New York, Doubleday, Doran & Company, 1935.

lending countries is only \$47,500,000,000 or over \$7,000,000,000 less, a reminder that the many difficulties in collecting such information forbid any high degree of exactness in results.

These estimates are of long-term investments only. There are also short-term investments which are often larger. One of the difficulties created by the practice of international lending is the suddenness with which investors may dispose of their holdings and the consequent strain that may be placed on the investment market and the foreign exchanges. Thus, in 1939, according to the estimates of the experts in the United States Department of Commerce, there was a net capital movement into the United States of \$1,497,000,000, of which only \$27,000,000 was net long-term, while \$1,470,000,000 was net short-term. These are designated as *net* because there were movements both ways.

Since Tables 45 and 46 present only long-term investments and not the total investments, there is given in Table 47 estimates of foreign capital employed in certain countries. Both gross and net amounts are given because many countries are both borrowers and lenders.

TABLE 47
FOREIGN CAPITAL EMPLOYED IN SEVEN COUNTRIES IN 1930
(In millions of pounds sterling)

Country	Capital employed	
	Gross	Net
Germany	1,350	925
Canada	1,330	955
Australia	817	753
China	660	580
Argentina	640	635
India	575	565
Brazil	520	520

SOURCE: *The Problem of International Investment* (Royal Institute of International Affairs), London and New York, Oxford University Press, 1937; condensed from a table, p. 223. The source gives estimates for twenty-six countries.

FOREIGN INVESTMENTS CLASSIFIED

There are various ways of classifying foreign investments and three have already been indicated: (1) by lending countries; (2) by borrowing countries; and (3) as long-term or short-term. Other classifications along different lines are needed for some purposes and several may be mentioned.

Portfolio and Direct Investments. One division that is common is between portfolio and direct investments. The former are the securities (stocks and bonds) issued abroad by governments or private corporations and owned by individuals and corporations within the lending area. The investors exercise no control other than that which investors ordinarily exercise over enterprises whose securities they own. Direct investments abroad are the holdings of corporations which often have a majority interest and thereby exercise a larger or smaller amount of control over the foreign properties which frequently are "subsidiaries" of the owning corporations.

Other Classifications. It is also possible to classify the foreign investments of any one country by the countries or areas of investment. Or they may be grouped by the currency in which interest and principal are payable. Thus, some foreign investments by the British are in terms of the British pound rather than of the monetary unit of the borrowing country and some United States foreign investments are in "dollar" bonds. It was estimated by the United States Department of Commerce that on December 31, 1939, citizens of the United States owned \$3,335,000,000 of foreign "dollar" bonds. Still another classification may be made by the kinds of borrowers — government and other — with the latter subdivided by industries, such as transportation, mining, and so forth.

FOREIGN INVESTMENTS BY COUNTRY

United States Foreign Investments. Over several decades United States foreign investments have greatly increased, but just before the Second World War the movement was strongly in the other direction. At the end of 1934 the net creditor position of the United States was \$7,908,000,000; but by the end of 1939 it was only \$1,903,000,000. By September, 1944, she was a net debtor to the amount of \$1,200,000,000.¹ These estimates do not include the amounts due from a number of foreign governments to the Government of the United States, which were listed (principal sums with accumulated unpaid interest) at \$14,528,504,791 as of November 15, 1944. Nor have lend-lease items arising during the Second World War been included since they have been settled in some cases and other settlements are being negotiated.

¹ These estimates vary slightly from some given later because of "minor" adjustments made in some cases but not in others.

Tables 48, 49, and 50 indicate the debtor-creditor position of the United States for the dates indicated. Table 48 gives United States long-term investments abroad, Table 49 gives foreign long-term investments in the United States, and Table 50 shows the net position of the United States. An examination of these three tables

TABLE 48

UNITED STATES LONG-TERM INVESTMENTS IN FOREIGN COUNTRIES,
BY TYPES OF INVESTMENT AND BY GEOGRAPHIC AREAS,
DECEMBER 31, 1939*

(In millions of dollars)

<i>Area</i>	<i>Direct invest- ments</i>	<i>Portfolio investments</i>			<i>Grand total</i>
		<i>Foreign dollars bonds</i>	<i>Miscel- laneous foreign securities</i>	<i>Total</i>	
Canada and Newfoundland	2,023	1,414	285	1,699	3,722
West Indies	752	79	5	84	836
Central America and Mexico	637	26	—	26	663
South America	1,574	934	5	939	2,513
Europe	1,332	619	130	749	2,081
Asia	420	165	5	170	590
Oceania	123	96	3	99	222
Africa	98	2	17	19	117
International	26	—	—	—	26
Total	6,985	3,335	450	3,785	10,770

SOURCE (Tables 48, 49, 50): *The Balance of International Payments of the United States* (in 1939), Washington, United States Department of Commerce, 1940, pp. 28, 29, and 26.

* Types of values used are as follows: Direct investments, book value; foreign dollar bonds, par value; miscellaneous securities, estimated value.

TABLE 49

FOREIGN LONG-TERM INVESTMENTS IN THE UNITED STATES,
BY TYPES OF INVESTMENT, 1938-1939*

(Year-end data; in millions of dollars)

<i>Type of investment</i>	<i>1938</i>	<i>1939</i>
Direct investments (book value)	1,895	1,935
Common stocks (market value)	2,715	2,493
Preferred stocks (par value)	530	499
Bonds (par value)	580	570
Other investments	750	750
Total	6,470	6,247

* The estimates for 1939 and revisions of the estimates for earlier years have been based on a comprehensive survey of foreign investments in 1937 which will be published in the near future as "Foreign Long-Term Investments in the United States, 1937-39."

TABLE 50
 UNITED STATES INTERNATIONAL INVESTMENTS,
 END OF 1934, 1938, AND 1939
 (In millions of dollars)

<i>Item</i>	<i>End of 1934</i>	<i>End of 1938</i>	<i>End of 1939</i>
United States investments in foreign countries:			
Long-term	12,296	11,070	10,770
Short-term	<u>1,234</u>	<u>689</u>	<u>595</u>
Total	<u>13,530</u>	<u>11,759</u>	<u>11,365</u>
Foreign investments in the United States:			
Long-term	* 4,943	* 6,470	6,247
Short-term	<u>679</u>	<u>2,193</u>	<u>3,215</u>
Total	* <u>5,622</u>	* <u>8,663</u>	<u>9,462</u>
Net creditor position of the United States †	* 7,908	* 3,096	1,903

* Revised.

† Using market instead of par values for bonds and preferred stocks, the net creditor position in 1934, 1938, and 1939 would be reduced by \$1,034,000,000, \$633,000,000, and \$698,000,000, respectively.

shows the very considerable extent to which the economy of the United States is related to and dependent upon the world economy in the single field of investment. On the credit side, there were in 1939 long-term investments abroad amounting to \$10,770,000,000 of which nearly 65 per cent were direct investments. Almost one half of the total was invested in North America and nearly 72 per cent was in North and South America combined. In the five-year period from 1934 to 1939, United States investments abroad declined by \$2,165,000,000 and foreign investments in the United States increased by \$3,840,000,000. As a result the net creditor position of the United States was reduced by about \$6,000,000,000. Also, it is to be noticed that over one half of this reduction is to be explained by a change in the short-term items which are smaller in aggregate amounts but are by their nature more easily shifted.

British Foreign Investments. It has long been customary to say that the United Kingdom is the leading creditor country of the world. By this is meant that while nationals of other countries have invested in the United Kingdom her nationals have invested so much more in other parts of the world that on net account that country is the world's greatest creditor. In Table 46, the gross amount of long-term investments only was given for 1929-1930 as \$18,200,000,000 (about £3,700,000,000) with the United States next. The foreign investments of the British have been accumulat-

ing over many years and the estimates given include those made in colonies as well as in other areas. Table 51 gives the amounts at various dates.

TABLE 51

ESTIMATES OF BRITISH INVESTMENTS ABROAD (INCLUDING COLONIES)
(In pounds sterling)

<i>At end of year</i>	<i>Amount</i>
1875	1,400,000,000
1890	2,000,000,000
1910	3,500,000,000
1913	4,000,000,000
1929	3,738,000,000
1932	3,640,000,000

SOURCE: Condensed from Staley, Eugene, *War and the Private Investor*, New York, Doubleday, Doran & Company, 1935, pp. 524-525, to which readers are referred for details and the sources used.

This table is a condensation and includes only a few of the estimates that have been made. One point immediately catches the attention. For the period covered there was a continued growth in amounts until 1913, after which there was a decline though not a large one. During the First World War, there was some "disinvestment," that is, the British in order to secure funds for the prosecution of the war, sold to outsiders some of their foreign securities. The decline from 1929 to 1932 is presumably attributable to the depression which caused a slump in values. During the Second World War, there has been a repetition of the practice used from 1914 to 1919 and on a much larger scale.

From the outbreak of war in September 1939 to June 30th, 1945 the United Kingdom sold \$4,500,000,000 of external capital assets; increased external liabilities by \$11,605,000,000; and reduced her gold and U. S. dollar reserves by \$615,000,000. In addition there were \$195,000,000 of unallocated items giving a total of \$16,915,000,000 of "external disinvestment."² Some of the external liabilities may be adjusted but as matters stand at present the United Kingdom seems to be a debtor on net account.

French and German Foreign Investments. In 1914, France had net foreign investments of 38 billion francs which by 1919 had become a net indebtedness of about 6.8 billion francs (adjusted to 1914

² Taken from *Statistical Material Presented during the Washington Negotiations*. Text of a White Paper (Cmd. 6707), December, 1945, p. 12. Pounds sterling have been converted to dollars at \$4.03.

rates of exchange). By 1923 this net indebtedness had become 28.1 billion francs (similarly adjusted) and was slightly lower at the end of 1924.³ France had thus changed from a position of net creditor to that of net debtor. An estimate of gross (not net) portfolio colonial and foreign long-term investments in 1933 is 60 billion francs⁴ but this is not comparable with the preceding figures because it is gross rather than net and because of the change in the value of the franc.

Estimates of Germany's foreign investments vary widely but range upward from 20 to 36 billion marks for 1914. There was a considerable "disinvestment" during the First World War and in 1923 the amount was estimated to be from 5.7 to 7.8 billion marks. On net account Germany had become a debtor country.

SHIFTS IN INVESTMENT POSITION

As has been repeatedly pointed out, the estimates for various countries vary widely and are not closely comparable because they are presented in so many different ways. Some include only long-term debt, others are portfolio investments, with direct investments not included. Some are converted from the currency of the investing country and some are not. In some cases, but not in all, allowance is made for depreciation of the currency.

Several comments, however, are possible even with such varying and fragmentary data. In Part Four of this volume and especially in Chapter 15, attention was called to the alluring classification of countries as immature debtors, mature debtors, immature creditors, and mature creditors. This may be interesting and helpful as an "analytical tool," but it certainly should be used with care. As already pointed out, it is by no means certain that Great Britain, which is frequently referred to as a mature creditor, is such, if by that term it is meant that she had reached a stage where she was receiving on net account more than she was sending abroad. Except during the two world wars she was ordinarily adding to her foreign holdings though in the absence of more complete data, it is not clear whether these additions were equal to or greater or less than her claims for interest returns. In the two war periods, she has "disinvested" heavily and after 1929 apparently had to write off losses as did investors everywhere else.

³ Moulton, Harold G., and Lewis, Cleona, *The French Debt Problem*, New York, The Macmillan Company, 1925, p. 42.

⁴ *The Problem of International Investment, op. cit.*, p. 215.

Another comment is that the position of any country may change very quickly. The United States during the First World War shifted abruptly from mature debtor (net) to immature creditor (net). Germany and France had been creditors but suddenly found themselves debtors. The twentieth-century world is one of more rapid change than the century preceding.

These sudden shifts in investment position have far-reaching consequences. Only a few years ago (in 1938) the British economy because of foreign investments had estimated annual claims of £200,000,000 (net) from overseas investment. If some of the current calculations are even approximately accurate, this item will have disappeared and the national income will have thus been reduced by that amount. If so, then the people of the United Kingdom will have £200,000,000 less than in 1938 to use either in purchases abroad or in new investments abroad. The estimates of new capital issues in London since 1910 have never been near this amount, ranging from £156,000,000 in 1921 to only £21,000,000 in 1935 (exclusive of refunding issues), but not including direct investments or an allowance for short-time loans of all sorts. It would seem that strenuous efforts will be necessary to make up in other ways the amounts lost from the reduction in foreign investments. One of them will be an attempt to expand British export trade.

TABLE 52
INTEREST AND DIVIDENDS PAID (–) OR RECEIVED (+)
BY ELEVEN COUNTRIES IN 1929 AND 1936
(In old United States dollars)

	1929	1936
Union of South Africa	76.4 –	63.5 –
Argentina	204.7 –	92.0 –
Canada	258.1 –	138.2 –
United States of America	699.0 +	195.0 +
China	118.5 –	19.0 –
India	118.6 –	70.6 –
Japan	9.1 –	4.3 +
Denmark	16.9 –	11.8 –
United Kingdom	1,216.6 +	603.0 +
Sweden	8.1 +	12.0 +
Australia	181.4 –	86.3 –

SOURCE: *Balances of Payments, 1937*, Geneva, The League of Nations, pp. 12–17. In some cases the estimates are for calendar years and in others for fiscal years.

Table 52 includes only a few countries chosen because the estimates are available in comparable form. It shows two things that

are worth noting. First is the large amounts received as interest and dividends by some countries, notably the United Kingdom and the United States of America, and the large amounts paid out by other countries. Second is the sharp reductions in the amounts paid and received in 1936 as compared with 1929.

WHY INVEST ABROAD?

For many years nationalism has been growing. In the economic field it has been characterized as self-sufficiency or autarky. Yet the amount of foreign investments has also grown and the aggregate seems large by any standard of measurement. There seems to be a curious contradiction of the sort that we have noticed over and over again — a world that is increasingly interdependent and yet more and more nationalistic.

Reasons for Lending. On the supply side, the reasons for lending abroad are in part those which determine all lending. Individuals "save." They consume less than their total incomes. This difference they desire to retain as a principal sum perhaps for future consumption or for the sake of the current income which may be consumed or perhaps invested. Some have such large incomes that consumption of the total received is quite impossible; these funds are disposable for investment.

The choice of foreign rather than domestic securities is perhaps because of the higher prospective yield on funds loaned abroad. The lower yield on domestic investments of a similar sort is to be explained directly by the relative abundance of loanable funds at home. In foreign areas or certainly in many of them, there is a relative scarcity of "capital." A higher rate of return is offered. Also, there is, or because of the distance there seems to be, a greater risk and the rate of return is higher.

This does not explain all investments abroad, for instance, the extensive sale of German securities in the United States subsequent to 1923. Securities are often "sold" rather than "bought." Banking houses underwrite bond issues and then sell them to customers who are subjected to high sales pressure and perhaps misled. Thus some years ago various security issues of Krueger & Toll were marketed in the United States by banking houses who were themselves surprisingly unaware of the low quality of what they were selling.

Then there are the "direct investments." Modern business has intricate ramifications, often world-wide. A steady flow of raw

material is imperative if plants are to operate without interruption and it may be wise for a manufacturer to acquire foreign mines or other sources of supply. Similarly, the finished product must be marketed. But tariffs and other trade barriers are obstacles. One way to avoid them is to establish subsidiary plants in the countries where goods are to be sold. Because of a larger labor supply or for other reasons, costs of production may be lower and the finished product may be marketed in the country where it is manufactured although the owner of the factory may be a corporation in another country. For such reasons as these, many American corporations have established plants in Canada and elsewhere.

Short-Term Loans Abroad. The preceding paragraphs have referred especially to long-term loans. There are also short-term investments. In Table 50 earlier in this chapter, there were given estimates of \$1,234,000,000 of short-term investments by the United States in foreign countries at the end of 1934 and \$3,215,000,000 by foreigners in the United States at the end of 1939. (The latter item had risen to \$6,100,000,000 by September, 1944.) At any given time bankers and business men with foreign connections must keep working balances for day to day use. There are frequently opportunities for owners of funds in country A, who perhaps anticipate better opportunities later for long-term investment or who for other reasons wish to keep their funds in liquid form and accordingly invest them in foreign short-term obligations. Then there are times when political and financial conditions are so uncertain in some one country that funds flow out to other centers with the expectation that they will not be left abroad indefinitely. Funds of this last kind have in recent years been referred to as "hot money."

Reasons for Borrowing. On the side of the borrowers, there is no one reason for securing funds from abroad, but many reasons. First there is the fact that the borrower assumes obligations because he hopes that he can expand his business operations successfully and have something left over after meeting service charges on the debt. He may borrow abroad rather than at home because domestic funds are not available or can be borrowed only on more onerous terms. Or, just as the buyer in the lending country may have bonds "sold" to him by enthusiastic salesmen, so the borrower may at times be talked into the transaction by representatives of foreign bankers who are anxious to make what they can. There have even been charges that bribery has been used to encourage borrowing.

At times even in a highly developed country, economic conditions may be so acute that loans are sought on almost any terms. At the end of 1923 the German economy was greatly in need of "working capital" for the purchase of fuel, the payment of wages, and for other short-time uses and the Germans sought such funds from the outside. Under the most critical conditions, the Austrian Government sought help abroad. Another type is illustrated by the German practice of a few years ago. The Germans bought products abroad, notably in southeastern Europe, paying in "blocked marks" which could be used later, but only at times and in ways satisfactory to the Germans. In the meantime, however, the Germans were debtors to the foreign countries which consented to the arrangement.

A special form of foreign indebtedness is war indemnity or reparations. At the end of the Franco-Prussian War of 1871 the victorious Germans demanded a payment of 5,000,000,000 francs. At the end of the First World War Germany in turn was obligated to pay "reparations" in an amount that was for a time indefinite but was, in May, 1921, set at 132,000,000,000 gold marks (plus miscellaneous other obligations), this being equal to about 33,000,000,000 old United States dollars.

Politics and Foreign Investment. As always, no sharp line can be drawn between politics and economics. There are two relations between foreign investments and politics. The first is the way in which private investors have at times appealed to their governments for assistance when difficulty has been encountered in collecting amounts due from foreign debtors. For example, at the beginning of the twentieth century British and German lenders to Venezuela secured the support of their respective governments which blockaded Venezuelan ports and even sank several Venezuelan gunboats. Also, by forceful representations through diplomatic channels, pressure has often been applied to compel payments by debtors.

But there is another relation. At times governments whose nationals had funds for investment abroad have definitely encouraged or aided investment in particular areas where such investment would assist the governments in their plans for the later extension of political controls. This is thought by some students to have been frequent and more dangerous than the efforts by investors to secure governmental aid in the collection of loans privately made. Says Eugene Staley:⁵

⁵ *War and the Private Investor*, New York, Doubleday, Doran & Company, 1935, p. 55.

Despite widespread beliefs and convincing theories to the contrary, private foreign investments are found much more frequently as tools of diplomacy than as instigators of diplomatic action in those cases of international friction over foreign investments which may be classified as dangerous (that is more than mere altercations, but likely to lead toward war, especially to a big war between major powers).

THE SIGNIFICANCE OF FOREIGN INVESTMENTS

This chapter has been largely descriptive and has been designed to furnish a background for the other chapters in Part Six. Before taking up some of the matters there considered, what has already been said should be related to the preceding parts of this volume.

In Part One attention was drawn to the size and distribution of world population and to migration. Some regions are densely populated and others sparsely. Among the former, certain areas, such as Great Britain and Belgium, have relatively large per capita incomes and others, such as Java and large parts of China and of India, have low incomes. In the former the people, though numerous, have accumulated large amounts of capital to aid them in production, while in the latter capital is relatively scarce. Referring again to the law of variable proportion, it may be suggested that in the lower income areas with dense population the relationship between the factors is not one which permits the maximum possible product per capita. With large numbers of people, the marginal productivity of labor is low, while the scarcity of capital means that it has a high marginal productivity which is reflected in the rates of return secured on investments. Those who fear "overpopulation" or "population pressure" will note that if more capital could be made available, per capita incomes would rise, and, with rising incomes, birth rates would probably decline. This is a strong reason for favoring the movement of capital from regions where its marginal productivity is low to regions where its marginal productivity is higher.

Part Two considered natural resources and emphasized their relative and functional character. There is no possibility of having population distributed in a way that corresponds to resource distribution and, with modern industry so dependent, it is to be expected that efforts will be made to utilize capital equipment in their cultivation and extraction and to assure control through ownership. Again there is raised the question of the "proportion of

factors." A relative abundance of natural resources as compared with capital means a high marginal productivity for the scarce factor and if maximum results are sought, then investment from other areas is to be encouraged.

Relationships between different countries or regions were examined in Part Four on international and interregional accounts. It was apparent that an exact balance of merchandise exports against merchandise imports is never to be found and that there is no such balance even when the numerous invisible items are included. Regularly there is an excess of one over the other and often the excess of the one persists for extended periods of time. There can be no such excess, that is, of exports (including invisibles) unless the excess is a gift (which is true only in unimportant amounts) or unless the country having the excess receives from abroad promises of later payment. These promises may be stocks, bonds, mortgages, bank balances, or open book accounts but they are investments — long-term or short-term. If they are direct investments, there may seem to be less implication of a promise to repay at some future time but in a later chapter we shall notice that often a demand for payment is pressed.

Part Five dealt particularly with foreign trade and with controls over it. Again we noted the lack of balance and observed that on the whole economic protectionism is usually so operated as to encourage exports and discourage imports. Once more we are confronted with a gap between the two which is filled by the acceptance of promises to settle later, that is, by foreign investments.

SELECTED REFERENCES

Brailsford, Henry Noel: *The War of Steel and Gold*, 9th ed. London: Harcourt, Brace & Company, 1917.

Feis, Herbert F.: *Europe, the World's Banker, 1870-1914*. New Haven: Yale University Press, 1930.

Lewis, Cleona: *America's Stake in International Investments*. Washington: The Brookings Institution, 1938.

Royal Institute of International Affairs: *The Problem of International Investment*. London and New York: Oxford University Press, 1937.

Staley, Eugene: *War and the Private Investor*. New York, Doubleday, Doran & Company, 1935.

THE NATURE OF CAPITAL MOVEMENTS

Perhaps some readers may have noticed that in Chapter 26 the word "capital" was seldom used. Instead, there was a consideration of "investments." Perhaps it would have been still better, though cumbersome, to have described investments as "international debtor-creditor relationships." Little was said about how these relationships arise, although there was an implication that the "investments" had something to do with "capital" except where indebtedness has arisen from the imposition of indemnity or reparation demands. Only in the concluding paragraphs was there any emphasis on "capital."

Yet the conclusions in those paragraphs clearly rest on the implication that the debts under discussion are assumed in order that the borrower may have a larger supply of tools and machines to use in production. His calculations and those of the lender may not be realized but presumably the lender anticipates a productive use of his funds and the borrower intends to employ them in such a way that out of his enlarged product he will be able to service the debt. Unless something of this sort happens, there seems to be little justification for international lending. Accordingly, it is advisable to look a little more carefully into what actually happens.

Underwriting Foreign Security Issues. International indebtedness arises in many ways. When the amount involved is large — say a municipal or corporate bond issue — the usual procedure is for a group of bankers in the lending country or perhaps in several countries to organize a syndicate (or a consortium) for the purpose of "floating the loan." This syndicate arranges the terms of the transaction with all its technical details and guarantees to pay the borrower a specified amount, for example, 96 per cent of the par value of the bonds. The syndicate then markets the bonds at a price several points higher, receiving the difference between this sales price to the public and the amount provided to the borrower in return for its marketing services.

In the first instance then, the bankers in the lending country, the United States, for example, receive dollars from the purchasers of the bonds and the amount promised the foreign borrower is placed to the account of that borrower in some New York bank. If what the borrower wants is "capital," shall we say that he now has it? Certainly he does not have instrumental capital or real capital, namely, tools and machines to be used in further production. If the borrower is the German Government, all that the officials of that government have is a deposit account in New York on which they may draw. Although the transaction is more involved, it is essentially the same as the one in which the reader may engage by giving his note to a bank and receiving a deposit entry in his bank book.

Is Capital Borrowed? Thus far all the borrower has is what may be called a "capital fund" — a balance on which he may draw. The banking syndicate in the underwriting agreement into which they may have entered with the borrower, may have placed limitations of some sort upon the ways in which this fund may be used but for the moment these will be ignored and we shall assume that the borrower may use the funds at his discretion. In ordinary popular understanding, he has "money capital" or, in the terminology of certain economists,¹ ". . . part of the supply of waiting or capital disposal in one country is put at the disposal of people in another."

Let us continue with the assumption that (as in the case of the Dawes loan of 1924) the borrower is the German Government. The borrower presumably has entered into the transaction because of a need for funds in Germany where the circulating medium is the mark. Accordingly, the Finance Minister of Germany will sell drafts on this New York account to some bank in Germany, say the Deutsche Bank, receiving from it the marks he wants. The Deutsche Bank now has at its disposal the funds on deposit in New York and will sell them, let us assume, to German business men who owe American business men for purchases already made or in prospect. These payments are for commodities or perhaps for services sold by Americans to Germans (though they may be for interest on debt or for some other purpose).

Possibly these goods are tools and machines of a sort in whose production Americans have a comparative cost advantage. By

¹ Gustav Cassel and particularly Carl Iversen, from whose *International Capital Movements*, p. 23, the quotation is taken. (See Selected References at the end of this chapter.)

importing these tools, the Germans have come into possession of a larger amount of real or instrumental capital than they had before and their productive capacity has increased. If China or Russia had been the borrower, the same result would have followed although the choice of goods purchased might have been quite different.

Thus far the steps seem clear. First a capital fund or money capital has been placed at the disposal of the borrower. He has exchanged it in the market for real capital. But suppose that the drafts on New York had been bought from the Deutsche Bank by a German who imported not tools and machines (American trucks, for instance) but some form of consumption goods (such as meat products). Has capital been acquired? Apparently not, but further analysis is needed. The Germans ordinarily import large amounts of certain kinds of food because of a pronounced cost disadvantage. If instead of devoting a very considerable amount of time and effort to raising this food, they import the meat and use some of their time and effort to produce tools and machines, the net result is the same. Although they have actually imported not capital goods but consumption goods, they soon have a larger productive capacity than before. And this is what a judicious lender will have in mind. He is concerned about the ability of the borrower to service the loan rather than the specific use to which the borrowed funds are put.

Instead of making purchases in the United States where the borrowing is done, the borrower, the Chinese Government, for instance, may buy the desired commodities, perhaps locomotives, from some other country, say Belgium, paying for them with drafts on the New York bank. The Belgians, who now have these borrowed funds at their disposal, may purchase iron ore from Sweden and the funds will then be used by the Swedes to buy coffee from Brazil and the Brazilians may buy something from the United States. In the intricacies of world trade, the funds originally borrowed may be split up, mixed with other funds, and spent in many countries for a great variety of purposes. Ultimately, however, there would be purchases by somebody somewhere for something that would be exported from the lending country and something imported by the borrowing country. The transaction may reasonably be called a loan of capital if the productive capacity of the borrower is increased, even though the funds may be used immediately to acquire consumption goods or to pay for services. In any event, the lender is not so much con-

cerned with the direct purchase of tools and machines as he is with the general ability of the borrower to service the debt.²

Tying Clauses. There should at this point be a reference to what are known as "tying clauses." In the preceding paragraphs we have assumed that the borrower will be free to spend the capital funds at his disposal in any market and perhaps for any purpose he sees fit, although ordinarily he would borrow only for purposes that at least would not be disapproved by lenders. But often there have been restrictions placed upon the use of the borrowed funds. Two such restrictions may be mentioned: (1) a stipulation that the funds must be used for purchases in the lending country; and (2) a specification that nationals of the lending country be employed in the contemplated construction projects, this applying especially to the chief engineer.

Such clauses are disadvantageous to the borrower since he is deprived of the privilege of buying his supplies in a cheaper market if there be such. This increases the amount he must borrow for any specific enterprise and thus adds to his total costs. The lender may be injured because the added burden imposed on the borrower may make it difficult or impossible to service the debt. Apparently, such clauses are harmful to both parties.

Yet the lender may be in a position to insist on such restrictions and often has done so. The practice has been more common among bankers in the European Continent than among British and American bankers, perhaps because there is a closer relationship between banking and industry in the former area, and in the case of the British, at least, a broader conception of the advantages of multi-lateral trade. Subsequent to 1914, however, the practice has grown in Great Britain, and is perhaps to be explained by the depressed condition in many heavy industries there and by the desire to give those industries the direct stimulus of orders from borrowers for construction equipment.³

Direct Investments. It will be noticed that the preceding paragraphs have dealt with portfolio investments. Something should be added about direct investments, which in some areas are so large a percentage of the total. These direct investments appear in the debtor

² See Patterson, Ernest Minor, *Tests of a Foreign Government Bond*, New York, Payson and Clarke, Ltd., 1928.

³ For numerous illustrations, see Feis, Herbert, *Europe, the World's Banker: 1870-1914*, New Haven, Yale University Press, 1930, *passim*.

country in the form of plant equipment and of more liquid funds used as working capital. Take as an illustration such investments by a United States corporation which has a branch plant in Canada. The start may have been made by using Canadian dollars received in payment for goods imported from the United States or perhaps may have been borrowed within Canada. Additions to the investment can be made as the branch plant is operated and the earnings used for that purpose. The original "capital" may have entered Canada in the form of consumption goods as has been described in the case of portfolio investments.

"Hot Money." It has often been said that "capital is timid." One sign of this timidity is the sudden and often large movements of funds from one country to another. On numerous occasions between the two world wars, there were "flights of capital" from one country to another. This cannot be in any literal sense the movement of fixed capital although exceptions are found. To change the physical location of a factory building and of heavy machinery is ordinarily not possible or gainful, but remarkable transfers, especially of heavy machinery over long distances, took place after 1939 in Russia and in China. Also, in central and western Europe the Germans made similar shifts within Germany and from one country to another. Some fixed capital of which the ownership is evidenced by long-term investments may be moved.

Short-term loans are more easily shifted. As they mature the owners of the funds may reinvest in the same country as before or, if they prefer, buy drafts on other countries. There is always some of this shifting going on, but in times of economic or political uncertainty its volume increases. In such times, even the owners of long-term investments may participate. One or two illustrations may be given. In 1932 and the early months of 1933, there was in the United States a growing belief that the United States would "go off gold" or "devalue the dollar." Nationals of the United States and other countries sold drafts on their accounts in American banks, buying drafts on banks in other countries, expecting after the United States had "gone off gold" to reverse the process, selling foreign drafts and buying drafts on banks in the United States. A little earlier, in 1931, the financial crisis in Austria and in Germany led the French to sell pounds for francs or for gold and then the British and the Americans to sell Austrian shillings and German marks for pounds and dollars. For several years before the outbreak of

the Second World War, there was a rush to buy United States dollars.

Was this a capital movement? Instrumental capital did not move, but bankers and others both in Europe and in the United States disposed of "money capital" in Europe, for "money capital" in the United States. It was thought that when the political, economic, and military situation became more settled there would be a reversal of the movement; that the "money" would not stay indefinitely in the United States; that it was "hot money." Numerous "theoretical" and "practical" issues are involved, but their discussion must be postponed. Here it may be noted only that one of the immediate results was a movement of large quantities of gold to the United States, and that a later "export" of these funds from the United States may result in an outward movement of much of this gold. In fact, appreciable amounts have already gone, particularly to other countries in the Western Hemisphere.

Tests of Productivity. Like many other words, "productivity" seems simple until it is examined. Production is the creation of utilities and a utility is any commodity or service that satisfies a human want. Presumably a foreign loan, if it is to meet our approval, should increase in a direct or in an indirect manner the productivity of the borrower. There may be errors in judgment by borrower or by lender or by both of them but the general idea is apparently not a difficult one.

Some loans clearly seem not to be productive. For example, there was the one made to a potentate who spent the borrowed funds in the purchase of bicycles for the use of his rather numerous wives and for other similar purposes. It is not easy to see how such a use added to the productive capacity of his country. If the loan could be serviced, the first step was to tax away from the borrower's subjects a part of their production, which was in no way increased by the borrowed funds.

An equally clear illustration of the opposite sort might be the use of borrowed funds for the development and equipment of a tin mine in Bolivia. Assuming the funds borrowed were appropriate in amount and at a reasonable rate and that the funds were spent intelligently, the amount of tin mined and sold, say for smelting in Great Britain, would produce a larger income for the borrower who could readily service the loan.

Other illustrations may not be so easily classified. Is it enough

merely to notice whether the money income of the borrower is enlarged sufficiently by the use of the borrowed funds for him to meet the service charge on his debt? Assume a German borrower uses the funds to build an apartment house in Berlin. He builds economically in a good location and the apartments are rented regularly, with a resulting increase in income for the owner. But is the loan productive? Let us assume that the lender in London or in Paris or in New York wishes regularly to collect the interest due and ultimately to have the principal returned to him. Moreover, he wants to be paid in his own money, say in francs. But the rents are collected in marks in Berlin. So far as the lender is concerned, the loan is not a good one unless and until in some way the marks can be exchanged for francs. The owner of the Berlin building goes to his bank and endeavors to sell the banker some marks for drafts on a bank in France. He may be able to make the exchange but is there anything about the operation of his apartment house that adds to the banker's ability to sell him French drafts? If the borrower had instead used the borrowed funds to build a factory for the manufacture of cutlery and some of the cutlery had been sold in Paris, the use would have been productive to the borrower and would also have quite directly provided funds in France on which he could draw to pay interest. Or if it can be demonstrated that in some indirect way the apartment house added to the volume of goods that could be sold by Germans in France, then through the banker funds would become available for servicing the debt, and the investment by the lender could be fairly called a productive use of funds. Otherwise, it is not productive no matter how profitable the apartments prove to be. As in the case of the purchase of the bicycles, the payment, if made, must come from some other production, unaided by the loan in question.

This apartment house loan used as an illustration is not imaginary. A loan for just this purpose was hotly debated a few years ago. It is an excellent case for presenting the difficulty in deciding whether a given loan is or is not productive. A definition of the term quite suitable in some connections might be highly unsatisfactory in others.

REPARATIONS AND WAR DEBTS

Between the two world wars there was a large amount of friction because of the claims against Germany for reparations and because the United States held the promises of a number of her associates

securities owned by French citizens, a reduction in claims on other countries.

Germany was not in a position in 1921 to settle by a sale of foreign securities since the amounts held were apparently quite inadequate, estimates at about that time ranging from one to four billion gold marks. Nor could Germany under the conditions then prevailing sell her own bonds outside the country. The only way that payment could be made was by actually exporting to outsiders commodities and services whose value exceeded the value of goods and services imported by the amount due, that is, by an excess of exports. Perhaps it should be added that the payment could not be made with "money." Outsiders would not accept German paper money, which would have been worthless to them, and the amounts involved were far too large for settlement by shipments of gold from Germany, since her holdings of gold were quite inadequate.

There were two theories prevalent. One was that the ability of Germany to pay was dependent only upon the ability of the German Government to raise the funds within Germany (in marks, of course) by taxation or by the sale of bonds. If the amount (3,000,000,000 marks per year) was thus raised, purchasing power of Germans would be contracted by that amount and prices would fall. This decline in prices would attract foreign buyers to the German markets. They would buy and export German goods. At the same time the lower price level in Germany would discourage imports and the necessary excess of exports over imports would be created. If the amounts called for could be collected internally, there would be no further trouble.

The second theory held that there was a two-fold problem. First the funds must be collected internally in marks. Second the marks must be used to buy foreign currencies and the excess of exports over imports would not arise automatically. While it is always difficult and often impossible to present exhaustive and conclusive evidence that one theory is entirely true and another one completely false, it is clear that in this case there were two problems neither of which could be solved. First the amount collected within Germany was not adequate, and second, even if this amount had been sufficient, it would have been in marks and there was not available enough foreign exchange to make transfers possible.⁵

⁵ There is a large amount of literature on this subject. Note, among the many discussions, Moulton, Harold G., and McGuire, Constantine E., *op. cit.*, and Schacht, Hjalmar, *The End of Reparations*, New York; Robert O. Ballou, 1931.

The history of the attempt to collect reparations is a tragic one. Those who study it should realize that of course the Germans were not anxious to make the payments and that intelligent observers in the Allied countries knew the task was impossible. There was the invasion of the Ruhr in 1923, the Dawes Plan of 1924, and the Young Plan of 1929. Each of these plans reduced the amount called for but the world-wide depression and another agreement at Lausanne in 1932 resulted in the virtual abandonment of further collections. For our purposes, attention should be concentrated on the cardinal point under discussion in this chapter. "Capital" investments, the payment of interest on such investments, and the repayment of principal sums, can occur only if there can be an adequate movement of economic goods, of commodities and services. In Part Five, the limitations on such movements were discussed, limitations that are in part the result of governmental restrictions but in the case of such large sums as were demanded from Germany are economic in character. "Money" can be an aid but it is only a mechanism which may facilitate transfers and it cannot do the impossible.

The War Debts. During the First World War, the Allies and the United States co-operated in the economic and financial as well as in the military task of securing victory. The method was for the countries which had the greater economic and financial strength to aid the weaker by furnishing supplies and services of many kinds. Those that gave aid accepted promises to pay on demand or at specified later dates. When the war ended there was an intricate network of claims. In Europe, Great Britain and France were creditors for large amounts (in addition to reparation claims) and France was in debt to Great Britain. The United States was heavily a creditor. Walter Rathenau, Foreign Minister of Germany, once likened the general situation to a chain. At one end was Germany, connected with the others in one direction only, as debtor, and at the other end was the United States as creditor. Between them were numerous other countries, each of which had connections with creditors in one direction and with debtors in the other. The economic task was to pass payments along the chain from Germany to the United States.

We shall here refer particularly to the position of the United States. By August 21, 1922, that country had claims on numerous other countries under four headings:

1. Advances made by the United States Treasury, during and immediately after the war.
2. Amounts due from the sale of surplus war materials not returned to the United States.
3. Relief assistance granted to various countries by the American Relief Administration.
4. Similar assistance by the United States Grain Corporation.

Including interest due but unpaid, the account was as follows under these four headings:

1. Eleven countries	\$10,773,185,142.53
2. Eleven countries	592,621,265.03
3. Eight countries	96,286,331.86
4. Five countries	<u>62,869,129.73</u>
	\$11,524,961,869.15

This amount is considerably less than the reparation claim against Germany and was due to the United States Government from twenty different countries, only two (Cuba and Nicaragua) being in the Western Hemisphere. Here was another large debtor-creditor relationship. Only a few years earlier the United States had been a debtor country, just passing out of the mature debtor stage to that of immature creditor, but still a debtor on net account. In this case too, the debtors had the task first of collecting internally the amounts due and second of transferring the payments by buying drafts on banks in the United States.

A little more than twenty-one years later, the Secretary of the Treasury of the United States reported on November 15, 1944, that although \$1,992,941,866.90 had been paid as interest and \$757,802,851.11 as repayment of principal, a combined total of \$2,750,744,718.01, the total claim was larger than ever. Little was paid after 1930 and the total principal still due with accumulated unpaid interest was \$14,528,504,791.48. In the interval, the obligations, many of which had originally been demand notes bearing 5 per cent interest, had been funded into long-term bonds with numerous reductions of principal amounts and of interest rates.

CAN FOREIGN DEBTS BE PAID?

It may seem strange to ask if debts can be repaid. They are promises to pay and the loans would presumably not be granted unless the lender definitely expected the repayment with interest in the

meantime at the stipulated rate. Yet any one who believes that the old reparation claim against Germany or the war debts due the United States will be really paid, deserves to be called an incorrigible optimist.

A start may be made by noticing that often a debtor does not expect to pay his debt and the creditor is fully aware of that fact. A considerable part of the public debt of France was (or is) in the form of perpetual obligations, entitling the holder merely to the receipt of a specified rate of interest per annum. Some of the British Government debt is terminable annuities. Then, too, debts both public and private are often paid by "refunding." The older promises are paid with funds raised by the sale of new promises to pay either to the owners of the former ones or to others. It is an error to suppose that promises to pay are always literally paid or that the lender supposes that they will be.

Also, a glance at past experience with foreign investment is revealing. Great Britain is often referred to as a mature creditor nation, receiving each year as a part of her national income at least the interest due on investments abroad. Yet the total of British foreign investments has increased for decades, with reductions during the two world wars. Complete estimates are so difficult that a dogmatic assertion is unwise but apparently, at least, a large part of the interest due each year from abroad has usually been reinvested abroad.

German foreign investments by 1914 were perhaps twenty-eight billion gold marks (about \$7,000,000,000) but were reduced to a much smaller amount during the First World War. French foreign investments were lost in large part at the same time, and many of the new investments abroad between the two wars are now presumably worthless or nearly so.

Have Creditors Been Paid? A distinction must be drawn between individual lenders and a national group of creditors or a government with foreign credits. A particular individual may be repaid by selling his bonds to some one else or he may refuse to take a new issue offered in a refunding operation, while other individuals make purchases which furnish the money to repay him. But this is merely a shift of creditors, not a repayment. When the Germans and the British disposed of their foreign holdings during the First World War, they were paid by selling their securities to others. French investments in Russia and the Balkans were not paid but were lost.

British investments abroad during the thirties were written down because of numerous defaults as were similar foreign investments by United States investors and others.

Have Debtors Made Payment? Foreign debtors, like domestic debtors, often do not pay. They default or repudiate or fail, and the investor loses. But even though the foreign debtors remain solvent, do they pay? Yes and no. To the extent that the British sold their investments, say in South America, to buyers in the United States, the British received payment but not from the debtors, who merely found themselves obligated to United States nationals rather than to British. To the extent that the British investments had been in the United States and were sold to United States nationals, the British were paid and the United States (as a group of nationals) had met their obligations.

Payment under Normal Conditions. Just what "normal conditions" may mean is not clear but we shall arbitrarily think of it as a time of peace and of continuing business activity. Under such conditions, when they prevail, are foreign loans paid? Apparently not, in most cases, although there are notable exceptions. Generally speaking, they are not paid and there is no reason to expect and often not even a desire for payment.

There are two or three points to be emphasized. As was stressed in the discussion of reparation claims against Germany, real payment can be made only by an excess of the exports over the imports of commodities and services (including all invisibles). This may be difficult or impossible for the debtor country. Also, it may be objectionable to the creditor country. It is often contended that a policy of economic protectionism that restricts imports is attributable solely to the selfishness of domestic producers. Such groups are always active in all countries but it should be remembered that any considerable shift in the volume and nature and direction of trade may impose strains on many other groups. Viewed in a somewhat abstract way, it might seem advantageous for a creditor area like the United States to accept a repayment of foreign investments. The investments were commodities and services exported at an earlier date in excess of similar imports, the difference being covered by the acceptances of pieces of paper on which were recorded promises to pay later. This excess of exports meant hours of labor and materials from the use of which the exporting country received no immediate satisfaction. Why should not these creditors be pleased to

receive later the equivalent of these satisfactions with interest payments during the interval?

One reason is that many investors really are not anxious to receive and spend the amounts they have invested. They prefer to leave their capital funds intact. Some of them are rich and can not, even if they wished to do so, spend all of their annual incomes. To balance those who desire to be paid their interest or principal or both, there are others desiring to invest, ready to take over the old foreign securities or buy new ones. The total investment, at home or abroad, may actually increase rather than diminish.

Another reason why foreign investments are not always repaid quickly is the difficulty of receiving large repayments, especially if they are attempted suddenly. They will appear as an excess of imports over exports and may come from a reduction of exports or an increase of imports, although both may increase or decrease provided the imports become the larger. This general way of stating the situation, however, leaves out of account that there are specific items involved. If exports are decreased, they are exports of particular commodities, for example, of raw cotton. Only a few years ago, some 50 per cent of the United States production of raw cotton was exported and a large area in the southern states with many thousands of workers was utilized. A reduction in exports of this cotton would have meant the necessity of a serious economic and social readjustment. To a greater or less degree, the same may be said if other exports are curtailed. The factors of production are not completely mobile and their shift to other lines of production can not easily be effected, as was shown during the thirties when exports of raw cotton from the United States were sharply reduced.

If the change comes through an increase of imports, there are similar questions to be answered. Imports of what? An invisible item like expenditures of United States tourists in other countries and noncompeting commodities such as tropical fruits are possibilities but they are limited in amount. Imports of textile and steel products, of coal, sulphur, and so on, if large enough to be significant, create difficulties within the United States where readjustments of labor and capital may be required. Again, there is a lack of complete mobility and losses to be faced until the changes can be made.

Time Is Important. Large and sudden shifts are not easily made. During a war when ordinary practices are largely in suspense, or in a time of crisis like that in Europe just before the outbreak of

the Second World War, quick changes may be accomplished, the nature of which will be mentioned later. But in more "normal" times, conditions are different. There is a considerable rigidity to be overcome. New plants can not be built or old ones converted to new lines of production overnight, nor can laborers be quickly moved from, say, textile production in New England or in the South, to other occupations perhaps in other areas.

These are difficulties for the creditor country. On the side of the debtor also, the quick payment of large sums encounters obstacles. If the borrowed funds have been used for plant construction or in other "fixed" forms, these plants can not be moved. Over a number of years they can be depreciated and the funds set aside for the purpose exported in the form of movable commodities but this takes time. Thus, loans used for constructing fixed capital can not promptly be paid off. Short-term loans offer more possibilities but here, too, there are limits. Notice, as an illustration, an ordinary commercial bank. A sudden run by depositors will force failure unless the bank can hypothecate some of its assets, say with a central bank. That there is something comparable in the efforts of external short-term creditors to secure prompt large payments, was shown when, in 1931, British and American bankers attempted to withdraw funds from the European Continent, particularly from Germany. Relief then was sought in the "standstill agreements," which provided for a gradual settlement.

SELECTED REFERENCES

Iversen, Carl: *Aspects of the Theory of International Capital Movements*. Copenhagen: Levin & Munksgaard, 1935; also London: Oxford University Press, 1936.

Kuczynski, Robert R.: *American Loans to Germany*. New York: The Macmillan Company, 1927.

Moulton, Harold G., and McGuire, Constantine E.: *Germany's Capacity to Pay*. New York: McGraw-Hill Book Company, 1923.

Patterson, Ernest Minor: *Tests of a Foreign Government Bond*. New York: Harcourt, Brace & Company, 1928.

Schacht, Hjalmar: *The End of Reparations*. New York: Robert O. Ballou, 1931.

THE UNITED STATES AND FOREIGN INVESTMENTS

Enough has been said to create no little skepticism over terminology. An examination of "investment" experience shows that in many cases there has not been a real investment of funds loaned abroad although any one who owns a promissory note is apt to think he has "invested." He assumes that what he has turned over to his debtor has been used to increase the debtor's productive equipment. The creditor thinks of the bonds (or stocks) he holds as "capital," which again may lead the observer to fancy that the loan transaction has resulted in an addition to instrumental capital with the aid of which production and hence ability to pay will be enlarged.

To a great extent these conceptions fit the facts but there are so many exceptions that it is more accurate to think merely of a debtor-creditor relationship. Creditors (or the investors) are the owners of promises to pay or of equity interests in properties in other countries. There may be specific additions to productive equipment acquired by using the funds thus "invested" but often the relationship is indirect or nonexistent. Yet it would be cumbersome to avoid the words "investment" and "capital" in the discussion.

THE UNITED STATES AS DEBTOR

Until the end of the First World War, the financial relations of the United States with other countries followed the pattern so often sketched. Until (say) the crisis of 1873, her status was clearly that of an immature debtor. Foreign funds flowed to the United States, coming largely from Great Britain but also from Holland, France, and Spain. The evidence of this movement was that ordinarily imports into the United States exceeded exports. This excess of imports was paid for by the delivery to foreigners of various kinds of promises. The imports themselves were either tools and machines (instrumental capital) or consumption goods. In either case, the

result was that the people of the United States acquired or produced more rapidly than they could otherwise, a capital equipment that greatly increased productive capacity. National wealth and obligations to foreigners increased together. The imported capital was adding to wealth and the growth in wealth encouraged further capital imports.¹

There were checks on the movement, particularly in 1837 and in 1857, and at those times the foreign investors took severe losses but the importation of capital was soon resumed after each interruption. Although the amount of interest due each year assumed a growing importance in the balance of international payments, foreign capital was available and indebtedness grew. Probably the period from about 1873 to 1900 or 1914 may be called that of a mature debtor for the United States. The change was a gradual one, and simultaneously there was a growth of investments abroad by citizens of the United States. One estimate for July, 1914, places total foreign liabilities at \$7,200,000,000 and foreign assets at \$3,514,000,000, a net indebtedness to abroad of \$3,686,000,000.

THE UNITED STATES AS CREDITOR

Abruptly during the First World War the situation changed. The United States passed quickly from the status of mature debtor (net) to that of an immature creditor. Under the financial stress of war, foreigners placed large orders for commodities in the United States, and the value of exports advanced rapidly. Payment was made (1) by shipping gold to the United States; (2) by selling back to the United States the investments that had been previously made there; and (3) by marketing in the United States various foreign promises to pay. The net result was that in the short space of five and one-half years, the United States had reduced its foreign liabilities to \$3,323,000,000 and increased its foreign assets to \$6,956,000,000, with a consequent net creditor position of \$3,633,000,000. This covers only private holdings. If the net amount of "war debts" is added, the position of the United States was that of a creditor (net) to the amount of \$13,224,000,000.

In the years that followed, the United States encountered the difficulties referred to repeatedly in preceding chapters. So long as she was an immature debtor, there was an excess of imports from

¹ For an interesting chart showing this parallel growth, see Lewis, Cleona, *America's Stake in International Investments*, Washington, The Brookings Institution, 1938, p. 154.

abroad. When her status changed to that of a mature debtor and then to that of an immature creditor, exports became greater than imports. After 1919 it was often urged that she should accept the position of mature creditor and allow imports (of course including invisibles) to exceed exports. Instead, there was no relaxation in the efforts to restrict imports and to increase exports. In 1921, there was a temporary increase in import duties, followed the next year by the Fordney-McCumber Act and in 1930 by the Smoot-Hawley Act, both of which raised rates. For many years before 1914, there had been substantially no United States vessels carrying international commerce but during the war many were built, and when the war ended, these vessels competed with foreign vessels, thus reducing this invisible import. Many financial transactions formerly handled in foreign centers were cared for in New York, with a resultant loss by foreign banks and insurance companies of a substantial amount of income.

Also, every effort was made by private citizens and through government agencies to increase the sale of United States products in foreign markets. On current transactions exports continued to exceed imports. The gap was filled in part by imports of gold, but more by United States investments abroad. By 1929, although foreign assets in the United States had increased, the net position of the United States on combined private and government account was that of creditor to the amount of \$19,913,000,000, which by 1935 had risen and then declined slightly to \$19,380,000,000; by 1939 to \$15,037,000,000; and by September, 1944, to \$13,328,000,000. The investment position of the United States in a number of selected years is given in Table 53.

There are several points brought out by these estimates that deserve emphasis. First is the growth of United States private investments abroad to a total of \$17,200,000,000 in 1930, followed by a sharp decline to \$11,400,000,000 during the next nine years. Second is the relatively slight change after 1929 in direct investments as compared with the portfolio and short-term investments. Portfolio investments can be more readily offered for sale on the exchanges, and short-term balances can be reduced on demand or short notice. Direct investments, it will be remembered, are owned by United States corporations and hence have the characteristics of equities rather than of loans.

Foreign investments in the United States grew to an estimated

TABLE 53

INTERNATIONAL INVESTMENT POSITION OF THE UNITED STATES IN SELECTED YEARS
(In millions of dollars)

Item	End of year											1944 (Sep- tember)
	1869	1897	1908	1914 July 1	1919	1924	1929	1930	1933	1935	1939	
United States investments abroad												
Long-term												
Direct		635	1,639	2,652	3,880	5,389	7,553	8,000	7,800	7,219	7,000	7,300
Portfolio	75	50	886	862	2,576	4,565	7,839	7,200	6,000	5,622	3,800	3,300
Total long-term		685	2,525	3,514	6,456	9,954	15,392	15,200	13,800	12,841	10,800	10,600
Total short-term				500	800	800	1,617	2,000	1,100	853	600	500
Total long- and short-term	75	685	2,525	3,514	6,956	10,754	17,009	17,200	14,900	13,694	11,400	11,100
Foreign investments in the United States												
Long-term												
Direct		3,145	6,000	1,310	900	975	1,400	1,400	1,800	1,580	2,000	2,200
Portfolio	1,390			5,440	1,623	1,883	4,304	4,300	3,100	3,529	4,300	4,000
Total long-term	1,390	3,145	6,000	6,750	2,523	2,858	5,704	5,700	4,900	5,109	6,300	6,200
Total short-term	150	250	400	450	800	909	3,077	2,700	500	1,220	3,300	6,100
Total long- and short-term	1,540	3,395	6,400	7,200	3,323	3,767	8,781	8,400	5,400	6,329	9,600	12,300
Net creditor position of the United States												
On long-term account	-1,315	-2,460	-3,475	-3,236	3,933	7,096	9,688	9,500	8,900	7,732	4,500	4,400
On short-term account	-150	-250	-400	-450	-300	-109	-1,460	-700	600	-367	-2,700	-5,600
On long- and short-term account	-1,465	-2,710	-3,875	-3,686	3,633	6,987	8,228	8,800	9,500	7,365	1,800	-1,200
War debts due the United States												
Government				9,591	11,774	11,685	11,685	11,641	11,888	12,015	13,237	14,528
Total: private and government	-1,465	-2,710	-3,875	-3,686	13,224	18,761	19,913	20,441	21,388	19,380	15,037	13,328

Sources: The estimates in this table are taken, with some adjustment and rearrangement, from:

1. Lewis, Cleona, *America's Stake in International Investments*, Washington, The Brookings Institution, 1938, chap. XXI.
2. United States Department of Commerce, *The United States in the World Economy*, Economic Series No. 23, Washington, 1943, pp. 122-123.
3. Reports of the Secretary of the Treasury of the United States. These reports were used for the amount of "war debts" as of November 15 for the years indicated. Lend-lease obligations are not included for November 15, 1944.

\$7,200,000,000 by July 1, 1914; declined to \$3,323,000,000 by 1919; rose to \$8,781,000,000 by 1929; fell to \$5,400,000,000 in 1933; and advanced to a new high of \$9,600,000,000 by 1939, and to \$12,300,000,000 by September, 1944. The changes in the "portfolio" and "short-term" balances are particularly to be thought of as "hot money," which may be withdrawn quickly.

If the total of private investments (net) and the war debts due the United States Government is examined, it will be seen that the United States was a debtor (net) in the amount of \$3,686,000,000 in 1914 and had become a creditor (net) in the amount of \$13,224,000,000 by 1919, but that over 70 per cent of this was public, not private, debt. Since that time the public debt has been increasing steadily for reasons already stated, while the private investments have fluctuated quite widely. On private account, the position of the United States dropped from a credit balance of \$9,500,000,000 in 1933 to only \$1,800,000,000 in 1939, and changed to a net debt of \$1,200,000,000 by September, 1944. Since most observers do not suppose that the "war debts" will ever be paid, we may ignore them and observe that the United States was in 1939 a creditor (net) by only a modest amount but that foreign funds were in such form that they might readily be withdrawn. Further reference will be made to this in a later chapter. It is sufficient here to emphasize the highly complex and interdependent conditions in the field of international investments. Not only is the United States heavily involved, both as debtor and as creditor, but her situation is in some respects highly unstable. Thus it is calculated that by December, 1945, her net indebtedness had become \$2,100,000,000.

CHARACTERISTICS OF INVESTMENT

In finance ideals are not always observed, but it is pertinent here to record a few of the standards that are ordinarily kept in mind by both borrower and lender. If a loan is made on a long-term basis, the lender expects to receive interest at a specified rate during the period for which the loan is made and then to have the principal sum returned. The borrower is under obligation to pay the interest as it falls due and to pay the principal sum at maturity. He expects to use the funds in a productive activity that will return enough profits for him to meet the interest payments each year, and enough more for him to accumulate through the life of the loan an amount large enough to pay what he borrowed. He may do the latter by

setting aside something each year in a "sinking fund," or the bonds (or notes) may be serial, with some maturing each year. Meeting these two charges is called "servicing" the loan.

As always, there are exceptions. It is common to relate the life of the loan to the nature of the assets acquired with the borrowed funds. If they are used to purchase freight cars, the securities issued, that is, the car trust certificates, will not run for a longer period than the life of the freight cars. On the other hand, if the funds are used to buy assets that do not depreciate, the bonds may be issued for so long a period as to be almost perpetual. This is illustrated by the West Shore Railroad 4s, which have a life of five hundred years, the maturity date being January 1, 2361. Or if such bonds have an early maturity date, it is assumed that when they fall due, they are not to be repaid but refunded. Another illustration is mortgages secured by valuable land, which sometimes run for 999 years.

If, however, these promises secured by nondepreciating assets are paid off, it must be done by sale of the assets (if they still exist) to some other investor, or with funds secured year by year from the operation of the property. When an owner of a bond or a mortgage "withdraws" his funds from some enterprise, either he sells his "piece of paper" to some buyer, which means merely that some one else is the investor, or that his debtor gradually accumulates from earnings the funds with which to pay him. There can be no hasty withdrawal except through sale to another party, which is merely a shift of the claim from one creditor to another.

Applied to foreign investments this means that the British can not suddenly withdraw investments from Argentina or the United States except by a sale of their pieces of paper to others. Argentine railway bonds held in Great Britain might, for example, be sold to nationals of the United States, or United States industrial bonds might similarly be sold to United States nationals. The seller would receive "cash" or "capital funds" with which he could then make purchases abroad, but the investment has not been withdrawn. There is merely a different creditor than before.

Long-term Investments. If, then, the nationals of any country make long-term investments abroad, there is no way by which the debtors can be compelled to pay. There is no legal compulsion unless the debt has matured, and ordinarily such payment is not an economic possibility, except to the extent that funds may have been accumu-

lated in liquid form. With these qualifications, all that the creditor can do is to sell his claims to some one else. There is a new creditor, but the debtor has not paid and often literally can not pay. Even if he has the funds in his own country in his own currency, there is still the transfer problem to be solved. This has been elaborated in the discussion of reparation claims against Germany.

Short-term Investments. Are short-term investments different? Notice the position of a "commercial bank." It is a debtor to its depositors and to its noteholders, who may ask for payment on demand. Because its liabilities are of this kind, the "ideal" use of funds by a commercial bank is to lend them to borrowers on a strictly short-time basis. Yet if the depositors or noteholders of such a bank suddenly present claims for large amounts, the bank faces a "run" and may have to close its doors unless it can either pacify its creditors or secure aid from outside sources, for example, from a central bank, by rediscounting some of its own investments, that is, its commercial paper. Even short-time or demand claims may not be quickly collectible.

Then, too, loans are often made on a short-time basis but used by the borrower in some other way, perhaps on the assumption that a renewal of the loan at maturity can be easily arranged. An illustration from the field of international investment is the position of German borrowers on short-term from many countries, chiefly Great Britain and the United States, who found themselves in difficulties in 1931. The lenders, particularly the British, had abundant funds for investment, some received from France. Along with lenders in other countries they had loaned heavily on short-term, especially in Germany. In May, 1931, an important Austrian bank, the Creditanstalt, failed, involving a number of banks in Germany. There was widespread alarm. The French creditors withdrew funds from Great Britain; the British, the American, and other creditors endeavored to collect from Germany. There had been previous signs of financial difficulty, for the entire world was suffering from the depression which had started in 1929, and it is not possible to separate the facts connected with the German short-term debt from other matters. Yet what occurred seems to be a clear illustration of the impossibility of collecting suddenly a large amount of short-term loans. Banks in Germany failed. While some of the amounts due were collected by creditors, the demands were too heavy to be met except in part and finally, after extended negotiations between

debtors and creditors, an arrangement was reached for gradual repayment. This was known as the "standstill agreement," which was for a few months only but was renewed from time to time as it expired.

If the reader will examine Table 53, which gives the international investment position of the United States in a number of years, he may be inclined to disagree with the contention that investments can not be repaid in large amounts in a short period of time. There were rather large changes, for example, from 1914 to 1919, especially in foreign long-term investments in the United States. But the debtors did not pay. The foreign owners of United States securities were able to sell their holdings directly or indirectly to United States nationals and there was a resultant shift of creditors. The real payment was possible because of the urgent need by foreigners for commodities to be used in the prosecution of the war. Large shifts occurred again just before the Second World War, not because creditors in the United States withdrew short-term loans from abroad, but because foreigners sent funds there, placing them at short-term. The real movement in this case was in large part the heavy shipments of gold, a matter to which we shall return later.

FOREIGN INVESTMENTS IN THE UNITED STATES

Foreign investments in the United States have been in many lines, have taken many forms, and have from time to time involved losses to the creditors, particularly during the crises following 1837, 1857, and 1873. These investments may be presented in various ways. One is by type of investment and by creditor areas, as in Table 54. It will be noticed that in 1934 only about one eighth of the foreign long-term investments in the United States were in bonds, that over 35 per cent were in common and preferred stocks, and that nearly 35 per cent were direct investments. In other words, about 70 per cent were in equities. This distribution has certain advantages for a debtor country. With the possible and rather trifling exception of some of the bonds which may chance to be falling due, creditors at least can not force debtors into bankruptcy, merely because they wish to realize on their investments. In fact, the foreign investors are for the most part not creditors but are owners. They may offer their holdings for sale on the exchanges and precipitate a sharp decline in prices, and there may be difficult transfer problems as they endeavor to convert the dollars they receive into their respec-

TABLE 54

FOREIGN LONG-TERM INVESTMENTS IN THE UNITED STATES,
BY COUNTRIES AND AREAS, END OF 1934

(In millions of dollars)

Type of investment	United		France	Nether-lands	Swit-zerland	Other Europe	Latin		Total	Per cent
	Canada	King-dom					Amer-ica	Rest of world		
Direct investments (book value)	367	678	24	224	91	68	6	60	1,518	34.6
Common stocks (market value)	333	233	81	133	101	47	13	261	1,202	27.6
Preferred stocks (par value)	89	135	18	20	25	36	4	24	351	8.1
Bonds (par value)	49	87	50	207	63	40	8	32	536	12.3
Other investments	169	164	53	129	68	44	9	114	750	17.2
Total	1,007	1,297	226	713	348	235	40	491	4,357	
Per cent of total	23.1	29.8	5.2	16.3	8.0	5.4	0.9	11.3		100.0

SOURCE: *Foreign Long-Term Investments in the United States*, Washington, Bureau of Foreign and Domestic Commerce, 1937, p. 14. The last column has been added by the writer.

tive currencies, but this can not force the bankruptcy of particular debtors.

Another classification is by industries and is given in Table 55 for the same year (1934).

TABLE 55

FOREIGN LONG-TERM INVESTMENTS IN THE UNITED STATES,
BY INDUSTRIES, END OF 1934

(In millions of dollars)

Type of investment	Manu-factur-ing	Retail whole-sale distri-bution	Rail-	Public	Petro-leum	Min-ing	Fi-nance	Mis-cella-neous	Total
			roads, includ-ing other trans-portion						
Direct investments (book value)	565	86	245	8	207	35	360	12	1,518
Common stocks (market value)	601	45	110	198	113	69	58	8	1,202
Preferred stocks (par value)	114	11	80	95	12	8	25	6	351
Bonds (par value)	28	1	254	215	4	9	5	20	536
Other investments	—	—	—	—	—	—	—	750	750
Total	1,308	143	689	516	336	121	448	796	4,357
Per cent of total	30.0	3.3	15.8	11.8	7.7	2.8	10.3	18.3	100.0

SOURCE: *Foreign Long-Term Investments in the United States*, Washington, Bureau of Foreign and Domestic Commerce, 1937, p. 17.

This tabulation shows the highest percentage of foreign investment in the United States to be in manufacturing, followed by railroads and public utilities, the three combined accounting for over 57 per cent of the total.

Tables 54 and 55 give long-term investments only and it will be remembered that at times short-term items are small but at other times may be large. They were only \$450,000,000 in 1914; they rose to \$3,077,000,000 by 1929; fell to \$500,000,000 in 1933; amounted to \$3,300,000,000 in 1939 when they were over one third of the total; and were \$6,100,000,000 or about one half of the total in 1944. They are quite different from the long-term items in that the creditor may ask for payment on demand or on short notice. The debtor may not refuse without acknowledging default. If he is able to pay in full in dollars, the creditor still has to sell these dollars for his own currency — the transfer problem that arises whenever large international payments are attempted within a short period of time. If the obligation is expressed in the currency of the creditor's country, there is still the transfer problem, although in this case the problem is one for solution, if possible, by the debtor.

Since protectionism as discussed in Chapters 21 and 22 may include controls over capital movements as well as over movements of commodities, and since it often expresses itself in attempts to prevent control by foreigners over domestic enterprise, the extent to which foreigners own common and preferred stocks may be noticed. The following figures, it will be remembered, do not include direct investments, which for 1939 were estimated at \$2,000,000,000 and presumably meant a high degree of foreign control over the properties concerned.

Taking the total shares of common and preferred stock outstanding in 1929 as a base, the percentages held abroad in 1937, 1938, and 1939 were: ²

	<i>Common shares</i>	<i>Preferred shares</i>
1937	4.08	2.70
1938	4.35	2.68
1939	4.03	2.43

FOREIGN INVESTMENTS BY THE UNITED STATES

Although it has been necessary to record the "war debts" still due to the United States Government in a complete list of claims

² *The Balance of International Payments in the United States* (in 1939), Washington, Bureau of Foreign and Domestic Commerce, 1940, p. 85.

by the United States on other countries, they will not be included in what follows. The writer believes that any further payments on the war debts that may be made will be insignificant, and that some way will be found for their elimination in the not too distant future. What immediately follows has to do only with private investments.

Total American Investments Abroad. Although the United States was until quite recently a debtor on net account, there have for many decades been some American holdings abroad. They are estimated to have been \$75,000,000 in 1869. For 1897, 1908, and 1914, the estimates are \$685,000,000, \$2,525,000,000, and \$3,514,000,000, respectively. As already noted, they were \$6,956,000,000 in 1919; rose to \$17,200,000,000 by 1930; and declined to \$11,400,000,000 by 1939, and to \$11,100,000,000 by 1944. By December 1945 they were \$13,000,000,000.

The increase from 1914 to 1919 is accounted for chiefly by the sale in American markets of foreign obligations for aid in war financing; these were both long-term and short-term obligations. At the outset the borrowers were not only the Allies with whom the United States became associated in 1917, but Germany and other countries as well. The borrowers were both public and private. After the entry of the United States into the war most of the borrowing was by the various Allies direct from the United States Treasury.

By the end of 1919, United States nationals owned \$6,956,000,000 of foreign obligations and the United States was a net creditor, aside from the war debts, to the amount of \$3,633,000,000. In the years that followed, the economic problem was for debtors to find an adequate number of dollars, that is, drafts on the United States, to pay for ordinary commercial transactions and in addition to service the debts, both public and private.³ This must be kept in mind in reading the following paragraphs, since the amount of dollars available for private transactions was reduced to the extent that such dollars were used to service the public or war debts. While the public debts were not fully serviced, payments on account of principal and interest had been made by November 15, 1939, amounting to \$2,749,663,012.53. There was consequently that much of a reduction in the supply of dollars for private use.

Position of the United States — 1919 to 1929. The difficulties of adjusting any country quickly from a debtor to a creditor position

³ See *The United States in the World Economy*, Economic Series No. 23, Washington, Bureau of Foreign and Domestic Commerce, 1943.

have already been discussed. What occurred during the first ten years after the First World War was that exports of merchandise continued to be greater than imports and were not offset by other current transactions. For the eleven years this excess of credits amounted to \$11,641,000,000. This was reduced by net importations of gold but only by \$882,000,000. There was a large excess of exports which meant that foreign indebtedness to the United States on long-term and short-term account was growing. Estimates of short-term balances due to and from the United States are not available year by year prior to 1933, but we have already given the estimate of United States foreign investments as amounting to \$17,009,000,000 at the end of 1929 and to \$17,200,000,000 a year later.

This period has come to be known as the "New Era." It was one of extravagant optimism and, towards the end, one of wild speculation. After a sharp business reaction in 1920-1921, there were a number of years of economic activity supported in part by orders from abroad, which were paid for to the amount of over \$10,000,000,000 by promises to pay later and by equity investments abroad. Toward the end there was some withdrawal of American funds abroad and a rush of foreign funds to the United States, the short-term balances there rising to \$3,077,000,000 by the end of 1929. This movement was the result in part of the decline in the purchase of foreign securities by Americans and, until the collapse in the fall of 1929, of the desire of both Americans and foreigners to use their funds for speculative purposes on the New York markets.

Position of the United States — 1929 to 1939. Ten years later American short-term funds abroad had declined to \$600,000,000 and with long- and short-term holdings combined were only \$11,400,000,000, or \$5,800,000,000 less than in 1930. There are numerous reasons for this decline but several are outstanding and may be listed as: (1) a desire to use funds to better advantage in the United States; (2) a growing distrust of foreign investments which began to fall off in 1928; (3) losses on investments previously made, which were "written off" or "written down" to lower figures.

Regardless of causes, the rapid rise of the security markets to the high levels of 1929 and the decline thereafter were spectacular. Until 1928 the power of the United States market to absorb foreign loans was very great. Production was high, the federal government debt was being paid off at the rate of about \$900,000,000 per year, new securities could be readily sold. Investment bankers competed

with each other in the underwriting of foreign issues. By 1928, however, the opportunities for speculative gain on the New York Stock Exchange were so attractive that both Americans and foreigners shifted funds in large amounts. Even so, foreign investments continued to increase.

By 1928, however, uncertainties regarding foreign investments began to be felt by lenders in the United States. There was a growing realization that past loans abroad were being serviced with the foreign exchange made available by the sale of new issues and that there was probably a limit beyond which such methods of financing could not go. American investments abroad increased by \$1,541,000,000 but the outward flow soon declined in volume and disinvestment began.

TABLE 56
UNITED STATES FOREIGN INVESTMENTS, BY GEOGRAPHIC AREAS,
FOR 1929, 1935, AND 1939
(In million of dollars)

Areas	Amounts			
	1929	1935	1939	Increase (+) Decrease (-) 1929-1939
Europe	4,600.5	3,026.0	2,081.0	2,519.5 -
Canada and Newfoundland	3,660.2	3,657.6	3,722.0	61.8 +
Cuba and other West Indies	1,153.9	871.7	836.0	317.9 -
Mexico	975.2	912.9	663.0	598.5 -
Central America	286.3	192.0		
South America	3,013.8	2,574.4	2,513.0	500.8 -
Africa	119.2	125.8	117.0	2.2 -
Asia	1,040.4	915.3	590.0	450.4 -
Oceania	403.0	413.1	222.0	181.0 -
International, including banking	140.1	151.9	26.0	114.1 -
Total long-term investments	15,392.6	12,840.7	10,770.0	4,622.6 -
Short-term credits	1,617.0	853.0	600.0	1,017.0 -
All foreign investments	17,009.6	13,693.7	11,370.0	5,639.6 -

SOURCE: Lewis, Cleona, *America's Stake in International Investments*, p. 606 (for 1929 and 1935), and *The Balance of International Payments in the United States* (in 1939), p. 28 (for 1939).

Distribution of United States Foreign Investments. The distribution of United States investments abroad may be presented in various ways. One is by geographic areas. Table 56 gives this grouping for combined direct and portfolio investments for the years 1929, 1935, and 1939. Deductions have been made for repatriations and repudiations.

Various comments may be made on this table. The area with the heaviest indebtedness to the United States in 1929 was Europe, but Europe's indebtedness had sharply declined from \$4,600,500,000 in 1929 to \$3,026,000,000 in 1935 and to \$2,081,000,000 by 1939. Of the total in 1929, over half was in the Western Hemisphere but by 1939 it was over 70 per cent of the reduced total. Much of the reduction during the ten years was by default or repudiation (open or disguised). In the number of dollars involved and in percentages, the decline for Europe was the greatest, though of course the total claims against Asia and Mexico and Central America had been much smaller.⁴

GENERAL COMMENTS ON FOREIGN INVESTMENTS

Foreign investments are "capital movements" across national frontiers. When the investments are made and when collection of service charges or repayment is attempted, there must be a conversion of one national currency into another. This transfer problem is less serious or less obvious when investments are made, since they occur when the lending country has an excess of exports, a situation indicative of ordinary business prosperity and optimism; or investments may be made, as, for example, just before or during the two world wars, when an urgent demand results in the placing of orders with little reference to ordinary business considerations. At such times securities are somewhat readily marketed or short-term liabilities accumulated.

Servicing and repayment are more difficult. If the amount of service payments is so large that imports into the creditor country tend to increase, competition with domestic producers is apt to mean a demand for protection to reduce imports. Large repayments create even greater difficulties, since they especially disturb the balance of payments and arouse still greater opposition. The transfer problem is a persistent one and often there is no solution.

As a result, foreign investments are not repaid to any great extent. The creditor may succeed in selling his claims to other investors, perhaps in other countries, but this does not mean that the debtor has reduced his liability. The creditor may have to sell at

⁴ See Winkler, Max, *Investments of United States Capital in Latin America*, Boston, World Peace Foundation, 1929, and *Foreign Bonds: An Autopsy*, Philadelphia, Roland Swain Company, 1933.

a loss from his original investment or he may have to accept defaults and repudiations. This has occurred repeatedly.

TESTS OF FOREIGN INVESTMENTS

In the concluding chapters of this volume, a number of current issues will be discussed. Conditions throughout the world have greatly changed. Procedures and mechanisms may be different in the future. Yet it is very easy to become so absorbed in change that we may overlook the persistence of many old practices and of certain underlying tendencies that will doubtless remain, even though forms and agencies are new.

There is, for example, the importance of using borrowed funds productively. To define "productively" is not easy. Also there are many occasions when expenditures should be made (say) for humanitarian reasons when it is impossible to demonstrate that the funds are to be used directly or indirectly for capital equipment. Yet the general idea should be kept to the fore. When "capital funds" are loaned, it is reasonable to demand that capital equipment should be increased. If a borrower assumes a liability, he may be expected to increase his capacity to carry the new charges involved.

Application of this principle is by no means easy. Indemnities and reparation claims seem to be clear illustrations of a lack of real investment in the debtor country. But how about the "investments" in the Belgian Congo early in this century? Large sums were secured from investors who did not anticipate modest and long-delayed returns. Instead of a careful, methodical conservation and development of resources, there was a rapid exhaustion of them and a large part of the "investment" had to be written off.⁵ The funds were used in what is ordinarily considered a productive enterprise, but political, labor, and other conditions, along with the extravagant expectations of the investors, led to exhaustion of resources rather than to their development.

This suggests that a slow rate of investment and far-sighted use of the capital are important. There may be added another suggestion arising out of the experience with European borrowing after the First World War. Western and central Europe are not poor and undeveloped areas. Instead, capital equipment there is large and productivity high. In fact, these countries have for decades been

⁵ Frankel, Sally Herbert, *Capital Investment in Africa*, London and New York, Oxford University Press, 1938, especially pp. 16-37.

lenders, not borrowers. For a time after 1918, there was a need for assistance but it was temporary and was a need for working capital rather than for fixed capital, for short-term rather than for long-term loans. It was to be expected that in a short while productivity would be increased, and that Europeans would themselves be in a position to lend rather than to borrow. This proved to be the case and American losses on loans there were attributable to the shortage of dollars more than to lack of local productivity among the borrowers.

A few generalizations may be hazarded — to be accepted cautiously:

1. The borrowing country and its people should have a long record of good faith toward their creditors.
2. The general economic status of the borrowing area should be one of continuing and healthily expanding prosperity.
3. The budget of the borrower, whether government or private, should be clearly and definitely in balance and a sinking fund should be provided unless the bonds are serial bonds.
4. If the lender really expects to be repaid, the borrowing country's balance of payments should be at least potentially favorable. As a corollary, the lending country should be willing to accept an adequate excess of imports if payment is anticipated.
5. As has been argued, the borrowed funds should be used directly or indirectly in production.
6. Political as well as economic stability are essential in the borrowing area. The two go hand in hand. The important consideration is not whether the government is radical or conservative but whether it is stable and has had the general support of its people for an extended period.
7. Until recently, it seemed important to demand that the promise should be to pay in gold but this has not proved to be an adequate protection to the lender. There is, perhaps, a little advantage in having the provision that the payment must be made in the national currency of the lender, as, for example, American loans in dollars. This merely throws on the borrower the responsibility of finding the foreign exchange. It does not eliminate the transfer difficulty but shifts it.
8. The bonds should be tax-free in the borrowing country or at least not subject to taxes not prevailing and fully known at the time the investment is made.

SELECTED REFERENCES

- Bureau of Foreign and Domestic Commerce, United States Department of Commerce: *Foreign Investments in the United States*. Washington: 1937.
- _____: *The United States in the World Economy*. Economic Series No. 23. Washington: 1943.
- Frankel, Sally Herbert: *Capital Investment in Africa*. London and New York, Oxford University Press, 1938.
- Kuczynski, Robert R.: *American Loans to Germany*. Washington: The Brookings Institution, 1927.
- Lewis, Cleona: *America's Stake in International Investments*. Washington: The Brookings Institution, 1938.
- Remer, Charles F.: *Foreign Investments in China*. New York: The Macmillan Company, 1933.
- Winkler, Max: *Foreign Bonds: An Autopsy*. Philadelphia: Roland Swain Company, 1933.
- _____: *Investments of United States Capital in Latin America*. Boston: World Peace Foundation, 1929.

INTERNATIONAL CARTELS

In economic textbooks, it was long the practice to present the treatment of value and price under two assumptions — competition and monopoly. Writers usually admitted that both of these assumptions were unreal, that most business organization falls between the two extremes, and that what we must deal with is always a mixture. Recently there has been a tendency to discuss this combination as “imperfect competition” or “monopolistic competition.”

There is no reason for giving extended attention in this volume to the more general questions raised. There are chapters on “trusts” in all general works in economics. It is sufficient to remind ourselves that economic “liberals” emphasize the economic advantages they believe inherent in free competition with a minimum of government controls. To the extent that each productive unit of natural resources, labor, and capital functions in the place and in the manner that will yield to it the highest return, there will result the maximum quantity and the highest quality of national income.

Perhaps this idea is proclaimed in no other country in the world more than in the United States. Business men are enamored with the expression “competition is the life of trade,” and the general public is readily stirred by attacks on the “trusts.” Theodore Roosevelt was popular as a “trust buster,” Woodrow Wilson was an advocate of the “Old Freedom,” and a contemporary journalist, Walter Lippmann, conceives of “The Good Society” as one in which there would be a very considerable return to “liberalism.” Yet John Maynard Keynes a few years ago could write a monograph on *The End of Laissez-faire*, and others wrote on the “Decline of Competition,” as did Arthur R. Burns (in 1936), who said in his preface:¹

The rise of the “heavy industries,” changes in methods of selling, and the widening use of corporate forms of business organization are bringing,

¹ Burns, Arthur R., *The Decline of Competition: A Study of the Evolution of American Industry*, New York, McGraw-Hill Book Company, 1936.

if they have not already brought, the era of competitive capitalism to a close . . . Much has been written of the history of individual pools and trusts, and accusing fingers have been pointed at the increasing concentration of control over industry. This literature is founded upon naïve conceptions of "competition" and "monopoly" and unreal assumptions concerning the possibility of reviving the competitive market.

Also, there is in the United States among the federal statutes the Sherman anti-trust law and from time to time energetic efforts are made to enforce it.

But concern over business combinations is not confined to the United States. It is widespread. At the World Economic Conference held in Geneva in 1927, the deliberations were conducted through three committees — one of them on "Industry." After extended debates the following ambiguous statement was agreed upon and appears in the final report of the conference:

It consequently appears to the Conference that it is entirely necessary that agreements should not lead to an artificial rise in prices, which would injure consumers, and that they should give due consideration to the interests of the workers. It is further necessary that they should not, either in intention or effect, restrict the supply to any particular country of raw materials or basic products, or without just cause create unequal conditions between the finishing industries of the consuming and producing countries or other countries situated in the same conditions. Nor must they have for their object or effect any reduction in the economic equipment which any nation considers indispensable, nor should they stereotype the present position of production, whether from the point of view of technical progress or of the distribution of industries among the various countries in accordance with the necessities imposed upon each by its economic development and the growth of its population.

EARLY INTERNATIONAL CARTELS

During the Second World War, American attention was particularly concentrated on what are ordinarily called "international cartels." This was because it was made known that prior to the war there were numerous agreements or understandings between certain corporations in the United States and their competitors in other countries, including Germany. These agreements had to do with controls over patents and processes, prices, and allocation of markets. Critics argued that as a result the war effort of the United States was seriously hampered.

It is well to realize that these cartels are not a recent development. As has been pointed out earlier, economic society is not and can

not well be "atomistic." Individuals can not and do not carry on most of their economic activities separately from and in competition with each other. Instead, they form partnerships and corporations. Huge holding companies are organized, trade associations are numerous, and informal understandings abound. In many lines we speak today not of competitively determined prices nor of monopoly prices but of "administered prices."²

Monopolies, or at least co-operation among competitors, have generally developed first within a given country. Producers and distributors who might otherwise have competed, have merged or consolidated or formed trusts or entered into agreements and understandings. But these arrangements did not remain localized and "in 1897 Robert Liefmann found some forty different international combines of various kinds in which German interests participated, the other parties being, as a rule, either British, French, Belgian or Austrian."³ Perhaps the earliest such international organization was in 1771-1773 to control the production and marketing of alum. There were the Neckar Salt Union (1828), the Nobel Dynamite Trust (1886), and others. As the years passed, more and more of them were formed until "there were over 114 such international cartels before the World War and at the present time nobody knows actually how many are in operation."⁴ Dr. Theodore J. Kreps, who made this statement, submitted with his testimony a list merely of "examples" from mining, metal, chemical, ceramic, electrical, textile, and manufacturing industries and from insurance and traffic.⁵

WHAT ARE CARTELS?

Again we face the difficulties of definition. The agreements referred to by the term are so numerous and so varied that there is little unanimity regarding the meaning. The word "cartel" is from the German *Kartell* or the Latin *charta* but little is gained by attempting to relate the current meaning to the German or the Latin original. Dr. Kreps, who has just been quoted, when asked for the common

² For an interesting presentation see Ware, Caroline F., and Means, Gardiner C., *The Modern Economy in Action*, New York, Harcourt, Brace & Company, 1936.

³ Plummer, Alfred, *International Combines in Modern Industry*, New York, Pitman Publishing Corporation, 1938, p. 3.

⁴ Theodore J. Kreps, Economic Adviser, Temporary National Economic Committee in testimony before that committee, January 15, 1940. See Part 25 of the Hearings, pp. 13059-63.

⁵ *Ibid.*, pp. 13368-69.

acceptance of the term, replied: "There isn't any common acceptance."⁶ Perhaps readers will, however, expect an attempt. One is by Robert Liefmann, who says:⁷

The term cartel designates an association based upon a contractual agreement between enterprises in the same field of business which, while retaining their legal independence, associate themselves with a view to exerting a monopolistic influence on the market. The only part of this definition to which anyone may take exception is the assumption that the tendency of the cartel is monopolistic. Any such exception rests, however, on political not on scientific grounds.

Another economist, Clair Wilcox, gives this definition:⁸

A cartel is an association of independent enterprises in the same or similar branches of industry, formed for the purpose of increasing the profits of its members by subjecting their competitive activities to some form of common control . . .

An international cartel may be an association of independent enterprises, located in two or more countries. It may be a super-cartel, composed of a number of national cartels. It may include in its membership publicly owned or operated enterprises or even governments themselves. The purpose of such a cartel is the same as that of a national cartel: to increase the profits of the participants by checking competition, in this case, however, in markets located beyond national boundaries.

Both of these definitions specifically include monopoly control or the restriction of competitive activities. Another will be given in which this characteristic is not clearly expressed though the reader may believe that it is implied. It is:⁹

"Cartels" are associations of independent undertakings in the same or similar branches of industry established with a view to improving conditions of production and sale. They are called "syndicates" or "comptoirs" where they have set up a common sales organization.

Further definitions emphasize "monopoly" and others stress "improving conditions of production and sale." Some consider that agreements between governments are to be included but one writer says:¹⁰

⁶ *Ibid.*, p. 13039.

⁷ *Encyclopedia of the Social Sciences*, 1938, Vol. III, p. 234.

⁸ *Competition and Monopoly in American Industry*, Monograph No. 21 of the Temporary National Economic Committee, pp. 215 and 218.

⁹ From the *General Report on the Economic Aspects of International Industrial Relations*, Geneva, The League of Nations, 1931, p. 8.

¹⁰ Hexner, Ervin, "International Controls in the Postwar World," *The Southern Economic Journal*, October, 1943, p. 122.

An international cartel is a private relationship between entrepreneurs as contrasted to relationships based on what is called public international law. Thus marketing controls based exclusively on diplomatic agreements do not belong in the category of international cartels.

An economist trying to define his own field of specialization said that "economics is what an economist does." Although this may not be very helpful, we may turn from definition to a consideration of what cartels do and why. Any "cartels" mentioned will be only the ones which are so generally referred to by that name that presumably no objection will be raised to their inclusion.¹¹

THE INTERNATIONAL RUBBER REGULATION COMMITTEE

Among the cartels has been the rubber cartel which temporarily suspended its activities, but over a number of years it has been in existence, first under what was known as the Stevenson Plan. After its failure, there was organized the International Rubber Regulation Committee. Why were these two organizations formed and what did they do?

In Chapter 8 dealing with raw materials, it was pointed out: (1) that the demand for rubber is an indirect or derived demand; (2) that it is used particularly in the United States;¹² and (3) that natural rubber production has been carried on chiefly in southeastern Asia.¹³ From 1913 to 1934 world production increased by about 800 per cent. The New York price for crude rubber had averaged \$2.066 per pound in 1910 (the highest price that year being \$2.88) and was 82 cents in 1913 (the high that year being \$1.13 and the low 59 cents). In 1920, the price range was from 56½ cents to 16 cents and, in 1921, it fell to a low of 11½ cents, averaging 16.4 cents. In the twelve years 1910-1921, the year with the smallest spread between high and low was 1921 (9¾ cents) and the one with the greatest was 1910 (\$1.47). The range for the period was from \$2.88 in 1910 down to 11½ cents in 1921.

We live in what is called an acquisitive society and can hardly expect that the producers and distributors of natural rubber would

¹¹ Readers wishing to pursue further the matter of definition will find a helpful survey in Hexner, Ervin, *The International Steel Cartel*, Chapter Two, *The Cartel Concept*, Chapel Hill, University of North Carolina Press, 1943.

¹² Total world rubber consumption was 5,056,000 long tons in the five years 1935-39 of which 2,640,000 long tons were consumed in the United States.

¹³ In 1938 the main producing areas with their percentages of total world production were: British Malaya (41.0); Netherlands Indies (32.9); Ceylon (6.5); French Indo-China (6.4); and Siam (4.6). These produced 91.5 per cent of the world total for that year.

fail to attempt control. The first effort was the so-called Stevenson Plan (or Scheme), which lasted from 1922 to 1928. Only British producers were included, and the policy followed was to raise prices, which advanced from the low just mentioned, to a high price of \$1.23 at one time in 1925, the average being 72½ cents for that year, which may be compared with the average of 16.4 cents in 1921. The results of this rapid advance were bitter complaints by United States consumers, an increase in the use of reclaimed rubber, and an encouragement to producers in the Netherlands Indies who had not been included in the plan.

In 1928, the Stevenson Scheme collapsed and the price of natural rubber fell to a low point of 25⅛ cents per pound at one time in 1932, averaging 3.4 cents for the year. The stocks of rubber were so large in the face of a slump in demand during the depression that the industry was demoralized and on May 7, 1934, the International Rubber Regulation Agreement was signed in London, effective June 1 of that year. The signatories were the "Governments of the French Republic, the United Kingdom of Great Britain and Northern Ireland . . . India, the Kingdom of the Netherlands and the Kingdom of Siam." The purpose was "to regulate the production and export of rubber in and from producing countries with the object of reducing world stocks to a normal figure and adjusting in an orderly manner supply to demand and maintaining a fair and equitable price level which will be reasonably remunerative to efficient producers. . . ." ¹⁴

It has been noticed (in footnote 13) that these areas produced 91.5 per cent of the world total in 1938. Thus, one of the weaknesses of the Stevenson Scheme was surmounted. Whether the parties to the agreement profited by another error under the earlier plan — that of letting prices rise too high — is not easy to say. The earlier agreement was in effect from 1922 to 1928, a period of great business activity especially in the United States; as the most important rubber market the United States consumed a total of imports which rose from 239,000 long tons in 1919 to 393,000 long tons in 1925, when the high price of \$1.23 per pound was secured.¹⁵ The later agreement operated during a depression. In any case the fluctuations in price were less extreme and it may be that better judgment

¹⁴ From the opening paragraph of the agreement. For a copy with Annexes, and so forth, see *Intergovernmental Commodity Control Agreements*, Montreal, International Labour Office, 1943, pp. 104-31.

¹⁵ By 1929 imports had risen to 560,000 long tons.

was being used, in spite of the fact that most of the sources of supply were under control. The committee operated on the basis of quotas stated in the agreement, adjusting from time to time the percentage of these basic quotas that could be exported from each of the producing countries.

THE INTERNATIONAL STEEL CARTEL

The International Rubber Regulation Agreement was by governments and hence was not a "cartel" as viewed by one of the writers quoted (Ervin Hexner). Another combination about which this question can not be raised was the International Steel Cartel. Its organization was both intricate and loose and it was in existence over many years.¹⁶ After the First World War the German steel industry was greatly disorganized and the Rohstahl Verband was formed in 1924. In this and in other ways, the German steel producers came more closely together and then took the initiative in bringing together the producers of other countries. At first it was Continental only (the Entente Internationale de l'Acier) but later it was joined by British interests (1935) followed by "the tentative entrance of the United States steel producers" (1938). "The organization disintegrated at the beginning of September, 1939, with the outbreak of war."¹⁷

This organization differed in many particulars from the rubber cartel just described. It was private, not governmental, although its existence was bound to have political implications and its leaders were at times accused of influencing politics. Hexner refers to "the hazy character of the ISC constitution," but declares that ". . . no such impression existed among the participants of the ISC. On the contrary, they considered the structure adequate for coping with the existing situation in steel."¹⁸

No satisfactory account of so complex and constantly changing an organization can be presented in brief space. Some of the conclusions reached by Hexner are: (1) the participants were on the whole satisfied; (2) the ISC seems not to have increased or decreased the consumption of steel; (3) it "exercised no influence on the enlargement or restriction of steel-producing or rolling facilities in steel-exporting countries"; (4) it "did not attempt to introduce a rationalized correlation among its members according to the principles

¹⁶ See Hexner, Ervin, *op. cit.*

¹⁷ *Ibid.*, pp. 89, 90.

¹⁸ *Ibid.*, pp. 106, 109.

of technical efficiency"; (5) it is doubtful whether the ISC "was conditioned by the tariff policies of governments" and "except in Great Britain and South Africa, the ISC did not influence tariff policies of governments directly"; (6) it exercised no influence on labor problems; (7) it maintained a relatively stable price policy; and (8) it "exercised considerable pressure on the business behavior of all adherents."

CRITICISMS OF CARTELS

International cartels have been vigorously criticized, the charges being the ones that are directed against national "trusts." One such charge is:¹⁹

The simplest definition of a cartel is to say that it is our old enemy monopoly, which we tried to make illegal in the United States many years ago, now streamlined and operating on an international scale.

One of the most vigorous recent denunciations of international cartels was by Corwin D. Edwards who, as Chairman of the Policy Board, Antitrust Division, Department of Justice, Washington, presented a study for the Subcommittee on War Mobilization of the Committee on Military Affairs of the United States Senate.²⁰ In this study are set forth, with numerous illustrations, the alleged harmful effects of the cartels; they may be summarized briefly:

A. As devices to control markets:

1. They maintain prices at higher levels than would otherwise be obtained. One illustration given is the price of \$50 per pound of tungsten carbide in the United States in 1927-28 which rose to a level ranging between \$225 and \$453 during the thirties after a pooling of patents by the General Electric Company and the Friedrich Krupp Aktiengesellschaft and fell to a range from \$27 to \$45 in April, 1942, after an indictment under the antitrust laws.
2. Cartels diminish incentives to improve quality. Specific allegations are made regarding agreements to keep down the durability of electric light bulbs and to discourage the use of fluorescent lighting, which consumes less electric current for a given result.
3. Sales territories are allocated to individual concerns or groups, each participant agreeing not to sell in territory assigned exclusively to others. This restricts investment abroad and deprives consumers of the opportunity to buy imported commodities.

¹⁹ *The New Republic*, March 27, 1944, p. 427: a special section entitled *Cartels, the Menace of Worldwide Monopoly*.

²⁰ Senate Committee Print, Monograph No. 2; 78th Congress, 2nd Session, Washington, 1944. The views expressed in the study are not to be construed as those of the subcommittee.

4. Available supplies are restricted in order to maintain prices. It is alleged that the International Tin Control Scheme (organized in 1931) sharply reduced output in the period from 1932 to 1934 to only 56 per cent of the amount that had been produced from 1928 to 1930 and in 1935 to 1939 to only 94 per cent.
5. Cartels set limits upon the amount or nature of production by certain concerns.

B. As devices to restrict production and technological change:

1. They restrict not only new production but new industrial capacity.
2. They place restrictions upon invention and technological change.
3. They make concerted efforts to weaken "independent enterprises."
4. The characteristic purposes of cartels point away from efficiency and their activities tend to diminish efficiency.

The monograph also presents arguments designed to indicate the political effects of international cartels as distinct from their economic effects but lack of space forbids their elaboration here. Cartels are ordinarily organized by groups brought together on a national basis which then arrange with each other a *modus operandi*. At times this is alleged to have resulted in a given national group, the German, for example, being supplied with an opportunity to co-operate with its government in furthering national political policies. For example, it has been charged that the "cartel connections between German and Allied concerns in the munitions industries apparently aided in creating an atmosphere of acquiescence to the revival of German munitions production during the 1920's in violation of the Treaty of Versailles"; that "after the Nazi government came into power, cartels were extensively used for trade penetration, political propaganda, collection of strategic information about foreign industries, and efforts to suppress the development of strategic industries in areas which might be hostile to Germany."²¹

The charges just listed are, as was to be expected, similar to the ones usually advanced against the "trusts" within a given country. Perhaps it is not surprising that their author has exaggerated unintentionally some of the data he presents. For example, his criticisms would have been better balanced if in his comments about the International Tin Control Scheme he had included other data. He might have brought together the facts given in Table 57. This table presents only a limited number of series, and no inferences should be drawn regarding other cartels than those in tin and rubber. Care

²¹ Edwards, Corwin D., *op. cit.*, pp. 54-55.

TABLE 57
 INDICES OF PRODUCTION AND STOCKS OF ALL METALS, TIN, AND
 RUBBER AS INDICATED IN 1929-1938

(1929 = 100)

	Production				Stocks at end of year	
	All primary production	All metals	Tin	Rubber	Tin	Rubber
1929	100	100	100	100	100	100
1930	99	89	93	95		
1931	96	65	79	92	181	169
1932	92	43	52	81	167	169
1933	95	50	46	98	78	175
1934	97	66	64	116	45	196
1935	99	79	72	100	40	174
1936	104	97	94	99	64	134
1937	110	120	110	131	71	162
1938	108	102	83	104	82	152

SOURCES: *Raw Materials and Foodstuffs*, pp. 11-14, and *World Production and Prices, 1938-39*, pp. 89 and 102; both are published by the League of Nations, Geneva, 1939. In the source used, indexes of production of tin and rubber were given with the base 1925-1929 = 100. The writer has adjusted them to 1929 as 100 for comparison with the other series.

should be used in presenting all statistics. Note that all primary production declined after 1929, though only slightly. Production of all metals fell to 43 in 1932, tin not quite so much — to 46 in 1933. Rubber production, which came under cartel control in 1934, had declined but at once started to rise, going to 131 in 1937. A glance at the index numbers of stocks on hand at the end of the years listed shows that stocks of tin fell sharply after the formation of the cartel but as they fell the production of tin increased. After the rubber cartel was formed in 1934, stocks declined somewhat but in 1938 were 52 per cent greater than in 1929, perhaps because of accumulations in anticipation of the coming war. No matter what our final judgment, these statistics at least give us a different basis for the two commodities concerned. Rubber has been included because the rubber cartel has been briefly described earlier in this chapter.

DEFENSE OF CARTELS

Attacks upon international cartels have provoked replies, some of them by cartel leaders and others by outsiders. Some of the statements are so couched as to be difficult to analyze as, for example, the one in the opening paragraph of the International Rubber Regulation Agreement of 1934 which has been quoted here. The proposal

“to adjust supply to demand” may in practice merely mean curtailing supply to an amount that will make possible a price that is desired by the cartel members. Price is merely a resultant of supply and demand and in turn may affect both supply and demand. The same criticism may be voiced against the assertion that what is desired is “a fair and equitable price level that will be reasonably remunerative to efficient producers.” This conveys no clear idea until we know the meaning of “fair and equitable” and of “efficient producer.” For centuries the concept of a “fair price” or a “*justum pretium*” has harassed economists and statesmen as well as churchmen. Producers vary in efficiency in part because of varying personal abilities and in part because of factors beyond their control and if the measure of efficiency is to be found in their costs of production it will be noted that at any given time there may be a wide range of costs between high-cost and low-cost producers. In the absence of specific knowledge of how this vague generalization is to be applied, we can not reach a satisfactory conclusion. There is no reason, however, why the vagueness of some of these general statements should blind us to any stronger arguments in support of cartels.

That the people of the United States are not under all circumstances averse to cartels is shown by the passage of the Webb-Pomerene Act of 1918. Hostility to domestic “combinations and conspiracies in restraint of trade” was not relaxed but this law definitely authorized the formation of such combinations of competitors for the furtherance of export trade. From 1929 to 1931 there were fifty-seven such associations and in 1939 there were forty-three.²²

Decline of Competition. No brief statement of the pros and cons of cartels can possibly be adequate. All that can be done here is to sketch a broad outline or framework to be used in forming a judgment. To begin with, it may be pointed out again that competition as it is often conceived of, has definitely declined. It is, of course, by nature destructive. As competitive units grow in size, it is not to be expected that they will in all cases continue a struggle which means a loss to all of them. Under modern conditions with a worldwide economic network, it is probably hopeless to oppose organizations or at least agreements on a wider than national basis.

²² *Cartels*, a report prepared by the Research Department of the National Association of Manufacturers, May 25, 1944, p. 34.

Costs as an Influence. Modern business calls for a heavy investment, and overhead costs tend to become a constantly higher percentage of total costs. When business is active, productive capacity is increased. When business declines, as it did throughout the world subsequent to 1929, sales decrease but overhead costs persist and threaten bankruptcy. It is not "realistic" to suppose that competitors will not reach some kind of an understanding regarding production, prices, and markets, if they can possibly do so, when the alternative is so serious.

Trade Barriers. For good or for bad reasons, trade barriers have grown. At times business interests have either advocated such barriers or viewed them with complacency. Yet they must do all in their power to expand their own markets and again it is not to be expected that they will quietly acquiesce in a bitter fight for trade. Instead, they will attempt to reach understandings or even binding agreements with rivals in other countries. The Atlantic Charter states the intention to "bring about the fullest collaboration between all nations in the economic field." International cartels are undertaking such collaboration as private groups, often with a considerable measure of government aid or co-operation.

Need for Stabilization. A careful scrutiny of data in preceding pages reveals the lack of even a fair amount of stability in economic life. Trade goes up and down, production in many lines fluctuates between wide extremes, and prices rise and fall. The results are tragic. Whether the cartels can increase stability, may not be so clear. Their leaders have often seemed not to realize their responsibilities to the public or even to their own industries, but there are a few signs that they are learning something from their past mistakes.²³

GROWTH OF INTERGOVERNMENTAL CONTROL AGREEMENTS

Preceding paragraphs may suggest a fatalistic outlook. Shall we merely view the cartels as the outgrowth of powerful forces over which human beings have no control or shall we say that they are organizations brought into existence by man and subject to modification or elimination? As always in such matters the answer is

²³ One of the best analyses of cartels is that by William Yandell Elliott and others: *International Control in the Non-Ferrous Metals*, New York, The Macmillan Company, 1937. The economic issues are set forth particularly in Chapter III by J. W. F. Rowe. Successive chapters deal with cartels in the nickel, aluminum, tin, copper, lead, and zinc industries.

between the two extremes. It is certainly unwise not to recognize them as a part of general world development. The limited success in the enforcement of the Sherman Act in the United States is a forceful reminder of the powerful tendencies represented by the "trusts." On the other hand, efforts at control are being made that should not be ignored.

International cartels have at times been largely private agreements, but there has been in most cases, especially in recent years, a growing participation by governments. In the attempts at control of rubber under the Stevenson Scheme from 1922 to 1928, the British Government participated, and the International Rubber Regulation Agreement is one between governments. Attempts to control coffee were by the Brazilian Government, then by agreements between a number of coffee-producing countries, and now there is in effect the Inter-American Coffee Agreement of November 28, 1940, continued for one year from October 1, 1943. The parties are thirteen American coffee-producing countries and the United States, which is the chief world market for coffee.

There is a long and involved history behind the present situation. International conferences, both public and private, have considered the difficulties created by excess capacity, by fluctuating output and prices, and by the accumulation or depletion of stocks. It has been pointed out that among the defects of many past agreements has been the inclusion only of producers without any representation of consumers. Thus the Rubber Agreement (as amended in 1937) specifies (Article 18) that the committee shall "arrange for the nomination of four persons representative of the consumers of rubber, of whom two shall be representatives of such consumers in America . . . to tender advice . . . as to world stocks, etc." It will be noticed that "consumers" are recognized but only to give advice and that, while they are called consumers, it may not be easy to provide for a recognition of the ultimate consumer as distinct from the manufacturer, who is the purchaser of the raw rubber.

Recognition of consumer interests is not infrequent but thus far it has been to a degree that is somewhat nominal. It should be added that, similarly, the interests of workers have been given but slight attention. There is a growing "social consciousness" that there should be "fair wages." This expression is almost if not quite as vague as "fair price," but there is no denying the increased demand for more remuneration to labor and for more economic security.

Moreover, these social standards are coloring economic behavior in many other lines, as in the use of "money" — a development that is discussed in Part Seven.

Some Limitations of Private Business. To this may be added the increased realization that business itself is dependent upon a wide and steady distribution of purchasing power among masses of people. Much has been said of mass production and it is being pointed out with growing emphasis that a continuance of mass production depends upon mass consumption and that mass consumption is impossible unless masses of people have purchasing power. Slowly this idea is gaining ground, and there are already many lines of production in which profit is being sought through low unit prices and large volume rather than through higher unit prices for a smaller volume. This tendency gives higher real wages, even though money wages are unaltered, and permits larger mass consumption.

Application of this principle is not easy, partly because of an intellectual lag in grasping it and partly because of the real difficulty faced in applying it. A business man may be convinced of its accuracy as a broad social policy yet find himself in a quandary when he tries to introduce it in his own plant. On the other hand, the same idea (distribution of mass purchasing power) secured considerable business support in the twenties when much was said about the "economy of high wages." High wages were thought of as making for low labor cost but also as giving workers more money for market use.

More Intergovernmental Agreements. The relation of governments to international cartels is not new. There has never been a period of complete laissez-faire. In an earlier chapter, we noted that there has long been a connection between governments and private foreign investments. At times private investors have called for government aid in the collection of amounts due especially from debtors in areas whose governments were weak; in other cases (or perhaps in the same ones) governments have encouraged their nationals to invest in foreign areas where an extension of political control was desired.

The reasons for government support of the international cartels have not been identical but governments have not held aloof. Some of the controls by the cartels could not be enforced except by public agencies. For example, only a government can set a limit upon the amount of a commodity that can be exported from a producing area. Also, there are some lines in which production is scattered among

so many small units that only a government can provide the controls that are needed if a plan is to be effective. Wheat and cotton are illustrations. Also, some of the attempts at stabilization, such as the accumulation of buffer stocks of commodities such as wheat, call for an amount of funds for their implementation and a risk that private interests may be loath to assume.

Government controls have varied from very slight participation to the other extreme of outright government agreements. The Tea Agreements were between associations of tea-growers but their wording shows an expectation of government assistance. As already noted, the Coffee Agreement of 1940 in the Americas is between governments. Particularly during the depression of the thirties, government agreements grew in number.²⁴

SELECTED REFERENCES

Edwards, Corwin D.: *Economic and Political Aspects of International Cartels*, Monograph No. 1; 78th Congress, 2nd session. Washington: 1944.

Elliott, William Yandell, and others: *International Control in the Non-Ferrous Metals*. New York: The Macmillan Company, 1937.

Hexner, Ervin: *The International Steel Cartel*. Chapel Hill: University of North Carolina Press, 1943.

———: *International Cartels*. Chapel Hill: University of North Carolina Press, 1945.

International Labour Office: *Intergovernmental Commodity Control Agreements*. Montreal: 1943.

Knorr, Klaus Eugen: *Tin under Control*. Stanford University, Calif.: Food Research Institute, 1945.

———: *World Rubber and Its Regulation*. Stanford University, Calif.: Food Research Institute, 1945.

Lamartine-Yates, Paul, ed.: *Commodity Control*. London: Jonathan Cape, 1943.

Liefmann, Robert: *Cartels, Concerns and Trusts*. New York: E. P. Dutton & Company, 1932.

McFadyean, Sir Andrew, ed.: *The History of Rubber Regulation, 1934-1943*, International Rubber Regulation Committee. New York: W. W. Norton & Company, 1944.

Nourse, Edwin G.: *Price Making in a Democracy*. Washington: The Brookings Institution, 1944.

²⁴ For copies of a number of agreements and a general discussion, see *Intergovernmental Commodity Control Agreements*, Montreal, International Labour Office, 1943.

Oualid, William: *International Raw Materials Cartels*, International Institute of Intellectual Cooperation. New York: Columbia University Press, 1938.

Plummer, Alfred: *International Combines in Modern Industry*, 2nd ed. New York: Pitman Publishing Corporation, 1938.

Temporary National Economic Committee, Hearings before the; Part 25, Cartels; January 15-19, 1940. Washington: 1941.

Whittlesey, Charles R.: *National Interest and International Cartels*. New York: The Macmillan Company, 1946.

Wickizer, Vernon D.: *The World Coffee Economy*. Stanford University, Calif.: Food Research Institute, 1943.

—————: *Tea under International Regulation*. Stanford University, Calif.: Food Research Institute, 1944.

PART SEVEN
FINANCIAL MECHANISMS

CHAPTER 30

MONEY AND MONETARY SYSTEMS

Throughout the preceding pages only slight attention has been given to monetary systems, foreign exchange, and other topics usually discussed in works on finance. As stated in the opening chapter, there are difficulties in any economic study because each topic is so closely involved with the other phases of the broad field that its consideration is incomplete until those other matters have been examined. Nevertheless, some order of presentation has been necessary and the consideration of "money" has been postponed until this point. Critical readers should not assume that this implies agreement with John Stuart Mill, who devoted nearly five hundred pages to other matters, and then observed:¹

The introduction of money does not interfere with the operation of any of the Laws of Value laid down in the preceding chapters. The reasons which make the temporary or market value of things depend on the demand and supply, and their average and permanent values upon their cost of production, are as applicable to a money system as to a system of barter.

It is more accurate to say of this generalization, as of most others, that it is at best a half-truth. Money is in some respects passive, but it is often a very active influence in economic affairs. Frequently it is not easy to determine the extent of its responsibility, which may be very great. Certainly there is no topic which is more fascinating to the untrained, who pour out a never-ending stream of monetary panaceas for the world's economic salvation.

What Is Money? Again we are confronted with the necessity of definition. We often hear that one "makes money"; that outstanding indebtedness is insupportable because it is greater than the amount of "money" in existence; that there is not enough "money" in the world to carry on business; that prosperity can be assured merely by printing and distributing more "money," and similar

¹ *The Principles of Political Economy*, 1848, Book III, chap. VII.

statements. We are informed that a government or a corporation needs more "money" and gets it from the "money market"; or an increase in the reported amount of "money in circulation," expressed in per capita terms, is often interpreted as though it were an expression of the wealth of the people of the country. Professor Irving Fisher often refers to some of the prevalent ideas as "monetary fallacies" and has written a volume called *The Money Illusion*.

Readers will not expect a presentation here of the more elementary ideas about money (and banking) but only of those matters directly pertinent to our main inquiry. No definition is free from some limitations but we may accept tentatively one by Professor Fisher, namely, "Money primarily means wealth which is *generally acceptable in exchange*." This will do as well as or better than any other but the dividing line between what is and what is not money can not be sharp or clear.

An International Monetary Standard. The first step is to observe that there is not now and never has been a world monetary standard, or even an international monetary standard, unless we use the word "international" carefully. The word connotes a number of separate nations or sovereign states. Each of them contends that it has the rights implied by sovereignty and that in the last analysis these rights are unlimited and unqualified except as they have been modified through treaties covering certain designated matters and for specified periods of time. Approached from the standpoint of duty or obligation, each state assumes certain responsibilities. One of these is to provide for the area under its control a suitable monetary system and appropriate supervision over banks and their operations. Supervision of banking is closely related to monetary controls because so much of the "money" in many countries is bank deposits which are subject to check. It is usually said that in the United States more than 90 per cent of all payments are made by check.

The Range of Acceptability of Money. The definition of money, as just given, includes the words "generally acceptable." This at once compels a consideration of the general range of acceptability. A personal friend or a business house with which I regularly have dealings may accept my check without hesitation but persons to whom I am not known or business concerns at a distance may take it, if at all, only with reluctance or perhaps "for collection." Checks on bank accounts are sometimes money and sometimes are not. Roughly speaking, their acceptability varies with the distance.

Such statements are intended to be merely suggestive and introductory to the topic before us. What is money in one community and hence generally acceptable may not be money elsewhere. Even though quite generally acceptable at one time, it may be less acceptable or quite unacceptable at another time. A given country, say Japan, or Mexico, or France, may use as money within its own borders something which may be refused outside that country.

Sweeping generalizations must be avoided but as a start we may notice that in the United States the Congress has under the Constitution of that country power "to coin money," and "regulate the value thereof." The result has been that there are some forms of money that are "full legal tender," and some that are legal tender for certain purposes and in limited amounts, while checks on banks which are not legal tender are generally accepted within the United States in payment of most obligations and hence are money. To an extent that varies from one time to another and with the nature of the obligation, they are acceptable also abroad as are the various forms of money other than checks. Yet qualifications to this comment exist. Within a foreign country, say France, there are limitations upon the extent to which United States money and that of other countries may be used.

STANDARD MONEY

Later the exchange of the money of one country for that of another will be considered at some length, but first something must be said about the "monetary standard." In any country, there is apt to be some one commodity which is "generally acceptable as a means of payment" and which is recognized in fact and in law as "standard." For reasons elaborated in the economic textbooks, the usual choice in modern times has been gold or silver, or *monometallism*, or a combination of the two, or *bimetallism*.

The Gold Standard. At present there are so many controversies over the extent to which the gold standard is currently in operation in any country, that it is well to start this description as of an earlier date. For many years prior to 1932 the United States was considered to be on the gold standard. The Congress had passed legislation over a series of years specifying that the monetary unit should be called a dollar, and should be 25.8 grains of gold nine-tenths fine or pure. Each dollar contained 23.22 grains of pure gold. Any owner of gold could take it to a United States mint where there was a

charge for melting, refining, and alloy but no charge for the actual minting into coins. Coinage was "gratuitous." Since gold could be taken to the mints for coinage in any amount, it was said that there was "free coinage," although a better term is "unlimited coinage." Thus there were both gratuitous and free coinage. In fact, though not entirely so as a legal right, other forms of money were redeemable in gold on demand. Also, gold was "full legal tender," that is, creditors were compelled to accept gold in full payment of obligations expressed in dollars. (Certain other forms of money were also legal tender in full or in part.)

This made it possible to describe a gold standard system as one in which: (1) there was free coinage of gold and of no other metal; (2) other forms of money were redeemable in gold on demand; and (3) gold, and gold only, was full legal tender. Since these three tests held in the United States, only with certain qualifications, it was sometimes said that the United States had a "limping" gold standard. Many other countries had similar systems. Thus, for a number of countries, early in the nineteenth century, the monetary units with their pure gold content were:

<i>Country</i>	<i>Unit</i>	<i>Pure gold content (in grains)</i>
Great Britain	sovereign	113.0015
Germany	mark	5.5313
France	franc	4.4803
Italy	lira	4.4803
Japan	yen	11.5742
Mexico	peso	22.8476

Only a few countries are given. The facts are as of many years ago and numerous changes have occurred. Also, as will be noted a little later, France and Italy were members of the Latin Monetary Union and were de jure on a bimetallic basis. The list illustrates the way in which monetary units varied in name and in gold content from country to country. There was not, strictly speaking, an international gold standard. Perhaps the word "international" is appropriate but, if so, it should be kept in mind that each of a number of countries was using gold as its own standard. This being the case, gold was readily accepted by each and the exportation and importation of gold by each was an ordinary occurrence.

Bimetallism. It is enough to point out that where silver has been a standard money, it has in recent times usually been combined with gold, that is, the standard is bimetallic. Today the advocates

of using a larger amount of silver as money, ordinarily support a combination of silver and gold, rather than the use of silver alone.

The reason advanced for the use of both metals, rather than gold by itself, has been that the supply of gold may not be sufficient for the purpose but that a combination of the two is both feasible and desirable. Under bimetallism the characteristics that have been listed for the gold standard may be repeated but as applying to both metals: (1) both gold and silver may be coined freely at the mints; (2) other forms of money are redeemable on demand, but with either gold or silver money; and (3) both silver money and gold money are full legal tender.

Bimetallism necessitates the setting of a "coinage ratio," and the United States in its earlier history may be used as an illustration. In 1792, the Congress provided for the free coinage of both silver and gold at the mint, the silver dollar to contain $371\frac{1}{4}$ grains of pure silver and the gold dollar to contain $24\frac{3}{4}$ grains of pure gold. Since the silver dollar was thus exactly fifteen times as heavy as the gold dollar (in pure metal content), there was a coinage ratio of 15 to 1. Later this was altered to 15.98 to 1 or almost 16 to 1 and the latter ratio was used as a political battle cry at the end of the nineteenth century by those who believed that the United States should return to bimetallism after a long period of rather confused drift away from it.

Since not only the silver standard but also bimetallism has been so fully abandoned, only a few comments need be made about its difficulties. The 15 to 1 ratio was chosen in 1792 because that was approximately the ratio at which the two metals were exchanging in the market and hence seemed appropriate for a coinage ratio. Difficulties arose because the market ratio soon changed, silver becoming less valuable than before in terms of gold. As a result, a given amount of silver, for example, more than 15 pounds, could be acquired in the market with 1 pound of gold, but only 15 pounds need be taken to the mint, where it was the equivalent of 1 pound of gold. It was profitable to buy silver and have it coined rather than gold. Silver coins tended to replace gold, and the country was de facto on a silver basis. By legislation in 1834 and in 1837 the weight of the gold coins was decreased so that the new coinage ratio became 15.9884 to 1, often abbreviated to 15.98 to 1 or even to 16 to 1. This new coinage ratio, however, resulted in a reversal of the tendency just described, since silver in the market was more

valuable than at a mint and was driven out of circulation, placing the country on a de facto gold standard.

There followed later the issue of "greenbacks" during the Civil War, and then in 1873 came the "demonetization of silver," which was long referred to as "the crime of '73." In 1900, there was passed the "Gold Standard Act" which, at least for years, ended the controversy by placing the United States on the gold standard. As has already been indicated, there are many qualifications that may be made to this statement, and sometimes it is said that the United States standard is a "limping" gold standard.

The Latin Monetary Union. This brief summary of the experience of the United States indicates that a difficulty with bimetallism is that of keeping the coinage ratio close enough to the market ratio of the two metals. A swing away in one direction sent one metal to the mints, driving the other out of monetary use, and a swing in the other direction had the reverse effect. The country was apt to be using one or the other of the two metals as money, but not both.

It has been argued that a greater stability in the market ratio could be maintained and bimetallism made more workable if several or many countries used the system. This was attempted in 1866 by a monetary union of France, Belgium, Switzerland, and Italy. They agreed to have monetary units of the same weight called a franc in the first three and a lira in Italy. The coinage ratio agreed upon was $15\frac{1}{2}$ to 1, and the coins of each country circulated in the others. In its operation there were in general the same difficulties as those faced by the United States, and as the years passed the members became more and more de facto gold standard countries. After many vicissitudes the union went out of existence in 1927.²

Gold Exchange Standard. Our discussion of the gold standard, if taken by itself, is misleading. No simple condensed statement can be accurate except as a sketch of a sort of "ideal." Monetary standards are complex, not simple, and there are numerous modifications and combinations. One may be used as an illustration. In the latter part of the nineteenth century, Great Britain was on the gold standard while India was primarily on the silver standard,³ the unit being

² For a brief history of this and other monetary unions, see *Monetary Unions*, by Axel Neilson, in *The Encyclopedia of the Social Sciences*, 1938, Vol. X, pp. 595-601.

³ Like many other monetary systems, that of India was complex. For a detailed account see Kemmerer, Edwin Walter, *Modern Currency Reforms*, New York, The Macmillan Company, 1916, Part I, and also Keynes, John Maynard, *Indian Currency and Finance*, New York, The Macmillan Company, 1913.

the silver rupee (165 grains). With the one country using gold and the other using silver, business transactions between the two necessitated the conversion of gold pounds into silver rupees or of silver rupees into gold pounds. Ignoring for the moment other factors that disturb the equilibrium in a balance of international payments, the use of a gold standard by the one and a silver standard by the other added a serious complication. The market ratio between gold and silver persisted in fluctuating, chiefly by silver becoming less valuable in terms of gold, or, conversely, by gold becoming more valuable in terms of silver. Thus, taking the relationship as 100 in 1873, by 1893 silver had declined in its gold value by 40 per cent. There was a tendency for the rupee to fluctuate in terms of the pound, the trend being downward.

In order to introduce more stability into the relationship between the two currencies and to reduce uncertainties for business, an arrangement was entered into between the two countries with the purpose of holding the rupee at 16*d*. This was done by closing the mints of India to the free coinage of silver and by a government announcement that it would exchange rupees for pounds at the rate of one rupee for 16 pence. Funds for stabilization were held both in India and in London. This was known as a gold exchange standard, and its general principles have been extensively applied. This was true in a number of cases before the First World War in the Philippines and elsewhere but particularly in subsequent years when it was widely adopted in Europe.

Irredeemable Paper. Thus far, the systems described have had a metal base — gold or silver or both. Countries having such systems may have outstanding an amount of money far beyond their supplies of the standard metal with which it may be redeemed, but, as we have described them, the gold or the silver is a very real factor which has or at least seems to have something to do with the value of the paper money and the bank deposits which constitute the major part of the circulating medium. Some countries at times — in fact, some countries a great deal of the time — may use as money pieces of paper which are not redeemable.

A classical illustration of this sort of money is the assignats of France after the revolution of 1789. The newly established republic was "poor in specie" but held large amounts of real estate confiscated from the church and this land was made the basis for an issue of paper money, nominally redeemable in coin. In 1793, there were

issued 2,000,000,000 francs, which by 1796 had increased to 45,000,000,000 francs. In this year they were made exchangeable into a new form of paper known as *mandats*.⁴

Another illustration, which is from more recent experience, is the money of Germany. As has been indicated, Germany was before 1914 on the gold standard but during and after the conflict there occurred a catastrophic inflation. While the money in circulation was still known as the mark and the paper money (primarily notes of the Reichsbank) was a nominal promise to pay marks, presumably gold marks, the amount outstanding became too vast for redemption to be considered or even imagined. By December, 1923, there were 496,507,424,772,000,000,000 marks of Reichsbank notes in circulation. In the fall of that year, a new form of money — the rentenmark — was introduced, exchangeable for the old mark at the ratio of 1 to 1,000,000,000,000. The rentenmarks were issued by the Rentenbank and are mentioned here because the security behind them was to a large degree mortgages on real estate — in which they were somewhat similar to the assignats. They were used for only a short time, being replaced by and made exchangeable with a new gold mark — the reichsmark — in the fall of 1924.

Other illustrations could be added, as, for example, the “greenbacks” issued by the United States during the Civil War. We need pause, however, only to point out two considerations. The first is that a government has two financial functions. One is the fiscal function, the task of raising through taxation or otherwise the funds needed to cover expenditures. The other is the monetary function, the provision of a suitable money for its people. A real danger that has frequently been realized is that the monetary function may be used to excess in meeting fiscal problems. A monetary system related to some commodity, gold, for example, is held within limits by the physical supply of gold. It seems clear, however, that in fiscal emergencies governments will feel impelled to evade or to ignore restraints.

The other consideration is that the use of real estate as a monetary base is hazardous, at least as it has been utilized in the past. Money issued against land as security might be tied in some way to a specified amount of land by the provision that there should be issued no more than (say) \$100 per acre. But if the number of dollars is related, not to the physical amount of land, but to its “value” as

⁴ For a history of this experience, see White, Andrew D., *Fiat Money Inflation in France*; republished: New York, D. Appleton-Century Company, 1933.

expressed in dollars, there is created the possibility of a vicious circle. As more dollars are issued, the value of the land expressed in dollars will tend to rise. As the land rises in value, there is an excuse for issuing more dollars, since the land is clearly more valuable in dollars than had at first been supposed.

To point out the disasters that have followed the rise of irredeemable paper money is not to assert dogmatically that it never has been and never can be used in moderation and with success. Past experience is not reassuring, but it is, of course, conceivable that man may in time learn how to exercise adequate control. Also, it should be acknowledged that its weaknesses have been most serious at times of great strain, during war or revolution. As yet, many if not most students of money are reluctant to see gold abandoned as a base and are dubious or even hostile to proposals that money can be successfully "managed" without the maintenance of redemption in gold.

Managed Money. There are many who advocate "managed money." They are apt to charge adherents of the gold standard with being "worshippers of the golden calf" and to urge that man-made institutions can be altered and controlled by man. The fact that some of these proponents are clearly not familiar with the subject is not a reason for dismissing abruptly their basic idea. Many of them are highly qualified experts and many supporters of the gold standard are not. Also, failures at management in the past are not positive evidence that management will always fail or fail to the same degree in the future. There have been numerous instances of money without a commodity base which give support to the contention that it may be possible to dispense with such a base.

By management is ordinarily meant controls over money, particularly over its amount, in order that within the jurisdiction of the controlling authority, prices may be steadied or allowed to rise or to fall as may be desired. More recently this concept has shifted somewhat. Some critics today urge that the basic purpose of monetary management is much broader. A condensed summary of this view is:⁵

And price stability itself has come to be widely regarded as an inadequate criterion of policy. Emphasis has shifted to the broader criterion of employment and productive activity, and to policies acting on income and effective demand to maintain a satisfactory level of employment.

⁵ *International Currency Experience*, Geneva, The League of Nations, 1944, p. 106.

To accomplish such a result may call for very intricate supervision and there will be many collateral effects, but the general idea is to use money as one of the means for securing desired economic results. Proponents of this view have little difficulty in pointing to the weaknesses of "automatic control" under the gold standard.

It must be conceded at once that controls are by no means new. It has long been the practice for central banks to assume responsibility for the supply of money. If they have felt, for example, that the amount of gold in the country is being reduced by exports to a point where credit must be restricted in order to keep a proper ratio between gold reserves and bank liabilities, they have raised the rediscount rate, which in turn has stiffened the open market rates. These higher interest rates have increased the attractiveness of the country as a place in which to leave or to which to send funds, and the exportation of gold has been checked or changed to an import movement. Under reverse conditions the opposite policy has been followed. Importation of gold has been discouraged by lowering the rediscount rates.

Also, open market operations have been used for a similar purpose. If prices are rising unduly, the central bank has sold government securities in its possession, receiving money for them, thus reducing the funds available to the other banks of the country and thereby restricting their ability to expand loans or perhaps even forcing them to contract. Conversely, the central bank by buying securities can furnish the other banks with funds for increasing loans. Another interesting control was used in France. It will be recalled that although France along with other members of the Latin Monetary Union was de jure on a bimetallic standard, she was de facto operating much like the gold standard countries. Since claims on the Bank of France could be legally met either with gold or with silver, the bank could insist on paying in silver unless the claimant paid such a premium for gold that it was not wise for him to demand it.⁶

VARIETIES OF THE GOLD STANDARD

Managed money is, accordingly, not a new idea. Some degree of control has been exercised for many years and in many ways, only a few of which have been noted. Later more will be said of the

⁶ For a discussion of this point, see Withers, Hartley, *Money Changing*, New York, E. P. Dutton & Company, 1913, *passim*. The author (page 6) observes of most of the European countries: "They have a gold standard, more or less, on paper, but they do not part with gold in payment of their notes unless they are so minded."

methods employed during the period between the two world wars but first something should be added about the gold standard. Its nature and operation are not so simple as have been indicated. Like all other economic organizations and procedures, it is intricate and, moreover, is constantly changing. With the reminder that what follows is overly simplified, two forms of the gold standard will be briefly examined.

Gold Specie Standard. The money used in a country may be largely (or even entirely) gold, or certificates issued as receipts for gold. If within the country either by law or by custom, the banks maintain a fairly constant ratio between their deposit liabilities and their gold (or gold certificates), then an importation of gold which finds its way into the banks increases their ability to lend, thus expanding their deposit liabilities, adding to the "money" in circulation, and stimulating business activity. The exportation of gold has the opposite effect. It is contended by many that these effects are desirable and this view will be elaborated in the next chapter.

No perfect illustration of the gold specie standard can be found but there is a suggestion of such a system in the Great Britain of not many years ago. The circulating medium in Great Britain (aside from subsidiary coins) was either gold coins or Bank of England notes. These notes were issued to a limited amount (only £18,450,000) against government securities but beyond this were issued only against gold owned by the bank. With qualifications, this was a gold specie standard.

Another possibility is for a country to use as a circulating medium bank deposits and bank notes, not secured dollar for dollar or pound for pound by gold in the bank but in some other way, for example, by an amount of gold that bears some percentage relationship to the outstanding note and deposit liabilities of the bank. In this case, the effect of an importation of gold is to increase the lending capacity of the banks, and of an exportation of gold is to decrease it. But the impact of such gains or losses of gold is greater. If, for example, the ratio of gold assets to bank liabilities is 40 per cent, the importation of \$100,000,000 worth of gold would permit an expansion of bank liabilities by \$250,000,000 and the exportation of the same amount would enforce a similar contraction. The growth in the practice of holding percentage reserves accordingly subjects a country more than before to the external influences that altered its gold holdings. An illustration (again, not a perfect one) is the

legal requirement (recently modified) in the United States that the Federal reserve banks must hold a 40 per cent reserve of gold against Federal reserve notes and a 35 per cent reserve of gold or lawful money against their deposit liabilities.

Gold Bullion Standard. Subsequent to the First World War, there was introduced a modification which is known as the gold bullion standard. The various forms of money used were kept at par with gold by redeeming them on demand with gold but with the qualification that gold bars were delivered instead of gold coin and only in fairly large amounts, perhaps the equivalent of several thousand dollars. This practice placed no restriction on the importation and exportation of gold. It did economize the supply of gold by reducing the amount of gold coin in domestic circulation.

It would not do to assume that invariably the importation and exportation of gold would cause a rise or fall in prices. To the extent that an enlarged supply of gold was followed by an expansion of lending by banks, business activity was encouraged and prices might rise but this might of course be offset in whole or part by an increased output of goods and this enlarged supply would tend to hold prices down.

The Gold Exchange Standard. We may return to the gold exchange standard, referred to before with the relations between India and Great Britain as the chief illustration. An adaptation of the same idea spread widely, especially in Europe after the First World War. Business was active, some countries had only moderate amounts of gold, and there was considerable fear that its supply would be inadequate to maintain the prevailing price levels. Also, there was very general insistence that countries which had suspended gold payments should resume them. The gold exchange standard was utilized as a means of economizing further in the use of gold.

In 1913, about 12 per cent of the total reserves of fifteen European central banks was held in the form of foreign exchange. In 1927, and again in 1928, the percentage thus held by twenty-four European central banks was 42, which declined to 8 per cent four years later.⁷ This arrangement permitted a bank to include in the reserve against its liabilities, not only gold but deposits held abroad in countries that were on the gold standard. Legal requirements differed somewhat widely. Thus of the reserve required to be held by the Bank of Germany, not in excess of 25 per cent could be foreign exchange.

⁷ *International Currency Experience, op. cit.*, pp. 29 and 235.

THE PRICE OF GOLD — THE PRICE OF SILVER

The Price of Gold. Much has been heard in recent years about the "price of gold." The term is confusing. A start in its understanding may be made by repeating certain definitions as they are usually worded. Value is power in exchange, of any one article as compared with others. Price is value expressed in terms of some one commodity. That commodity may be anything one chooses for the purpose: eggs, wampum, cattle, lumps of some metal. A common choice is gold. A United States gold dollar is a certain physical weight (23.22 grains pure prior to 1933), and other things bought and sold are priced in dollars (and cents). A house sells for \$10,000, a hat for \$5.00, a postage stamp for 3 cents or three hundredths of a dollar.

But what can be meant by the price of gold? It is possible, of course, to "price" gold in terms of butter or wheat but we constantly hear that the price of gold in the United States some years ago was \$20.671 per ounce and that it is now \$35 per ounce. This is perplexing. By definition, a dollar is a certain amount of gold and we seem to be pricing gold in terms of itself. If we say a bushel of potatoes is worth 60 pounds of potatoes or that a quart of milk is worth 2 pints of milk we have not said much.

To state that the price of gold was formerly \$20.671 per ounce is merely to say that there are 480 grains (troy weight) in an ounce; that Congress had directed that 23.22 grains of gold were to be a dollar; and that 480 divided by 23.22 gives 20.671 as the quotient. If 480 grains of pure gold are coined into dollars with 23.22 grains in each, the result is 20.671 dollars. One learns nothing more than one does from the statement that the price of a quart of milk is 2 pints of milk just so long as 2 pints are a quart. Nothing could alter this "price" of gold except an act of Congress changing 23.22 to some other amount, or some modification of the troy-weight system. Congress did make a change in the law in 1934, specifying that thereafter (subject to qualifications we need not recite) the amount of pure gold in each dollar was to be 13.71+ grains. If this is divided into 480 grains the quotient is 35. Hence, the "price of gold" is at present writing \$35 an ounce. To repeat, this is merely the number of dollars that can be coined from an ounce if 13.71+ grains are put into each dollar. Similarly the price of gold in Great Britain was said to be 77 shillings 10½ pence an ounce (eleven-twelfths fine or pure).

This explanation of the price of gold was correct enough, since payments for gold at the mints or in the open market were always based on the quotations as just given. Actual payment was ordinarily made with other forms of money, drafts on banks or orders on the Treasury. Some critics have insisted that although gold was basic in gold standard countries, the relationship between gold and other forms of money was becoming rather tenuous. No matter what may have been true earlier this has been the case for some years, in Great Britain, for example. Although there has been no statutory change in the gold content of the pound, the price of gold in the London market was for years 168 shillings per ounce and has recently advanced slightly. This is a price, not in terms of gold itself, but in paper money, which for the time being is not freely convertible into gold.

The Price of Silver. If a country were operating on the silver standard, the value of silver would be found in a way similar to that which has been described for gold. In gold standard countries, silver is used extensively for "subsidiary" coins. Instead of the mints being open to the free coinage of silver at a fixed "price," the silver is bought in the open market as may be required, and ordinarily at a market price governed by the usual play of supply and demand forces. If silver, like other commodities, is priced in terms of gold, then an ounce of silver may at one time be worth in the United States a dollar and at another time more or less than a dollar. If on a given day the price is \$1.00 per ounce or 25 cents per ounce, the government will purchase the amount desired. It may then be coined into silver dollars, each of which contains $371\frac{1}{4}$ ounces of pure silver, and may be used as the equivalent of a gold dollar (formerly containing 23.22 grains of pure gold). The difference between the cost of the silver and its value in coined form (less costs of minting, and so on) is a gain to the government and is known as "seigniorage." Because of a belief in bimetallism, because of the political influence of the "silver interests," and for other reasons the market price of silver in the United States is often raised or supported by special government purchases which result in a price higher than would otherwise prevail.

"Devaluation." For reasons which will be mentioned in the next chapter, the "price" of gold has been changed in a number of countries, particularly since the world-wide depression starting in 1929. These changes have usually been upward. Thus, the price of gold

in the United States in 1932 was \$20.671 per ounce and later it was \$35 per ounce. This increase in price is commonly called "devaluation" and it may be wise to use this word. It should be made entirely clear, however, that it is a highly inaccurate word and may be very misleading. Value is power in exchange. Hence "devaluation" of the dollar would seem to mean a reduction in its purchasing power. What was really done was merely to reduce the amount of pure gold in the dollar from 23.22 grains to 13.71+ grains. Whether this lowered the value of the dollar in terms of goods is another matter. *Prima facie* evidence of a lowering of value would be a rise in prices corresponding at least roughly to this change in weight, a rise that could not be explained adequately in some other way and that could be reasonably attributed to the "devaluation." There is no occasion here to say more than that prices in the United States rose temporarily in the summer of 1933 but apparently for other reasons, at least, in most cases. There was a definite and understandable effect on the foreign exchanges with a resultant influence on the prices of imports and exports that will later be described. In the meantime, it may be repeated that what occurred was not literally "devaluation" of the dollar but a reduction in its gold content. The power of the Congress to "regulate the value" of the dollar presumably refers merely to power to determine this gold content. Whether an alteration in the gold content has any effect on the general purchasing power of the dollar as reflected in prices, is quite another matter.

De Jure and de Facto Changes. In fact, some changes have occurred without any legal action. Thus in 1931 gold payments were suspended in Great Britain and the price of the pound fell in terms of many other currencies. To date, the gold content of the pound sterling has not legally been altered. The same is true for a number of other countries. There is a reluctance to alter definitely the gold content of their basic money, owing to the generally upset world situation and perhaps also to an uncertainty regarding the future of the gold standard. Sometimes these currencies are called "floating."

THE STERLING AND THE DOLLAR STANDARDS

Earlier in this chapter it was stated that there has never been an international standard — gold or any other. A number of countries have adopted the gold standard but each was acting inde-

pendently. Yet a description of monetary systems would be incomplete without reference to the dominating influence of certain countries.

For many years the financial position of Great Britain was outstanding. British trade, both import and export, was large; the British merchant fleet carried not only much of the trade of its own country but much of other countries as well; and British investments and financial influence were spread throughout the world. As a consequence British money, including drafts on British banks, had a wide geographic range of acceptability and some observers have thought it proper to describe this as a sort of world-wide "sterling" standard. There have been times, particularly between the two world wars, when the dollar was widely acceptable in other countries, not only at banks but by merchants and others who for the time being preferred dollars to their domestic currencies. As we have chosen to define terms, neither the pound nor the dollar was legally a world money and perhaps should not even be called "international." For a time and over a wide area each was acceptable.

Passing reference should be made also to the Bank for International Settlements at Basle, Switzerland. While it was brought into existence in part as an aid to the clearing of German reparation payments, some hoped that it might ultimately develop into a world bank, drafts on which would be acceptable everywhere. For some years now its activities have been restricted and there are many who believe it should go out of existence. Probably it will be replaced by the International Monetary Fund and the International Bank for Reconstruction and Development.

SELECTED REFERENCES

Heilperin, Michel A.: *International Monetary Economics*. New York: Longmans, Green & Company, 1939.

Kemmerer, Edwin Walter: *Money*. New York: The Macmillan Company, 1935.

_____: *Modern Currency Reform*. New York: The Macmillan Company, 1916.

_____: *Gold and the Gold Standard*. New York: McGraw-Hill Book Company, 1944.

Whittlesey, Charles R.: *International Monetary Issues*. New York: McGraw-Hill Book Company, 1937.

CHAPTER 31

FOREIGN EXCHANGE

In Part Four dealing with international and interregional accounts, the volume of business relations between countries and regions was emphasized. In Part Five and in Part Six special aspects of this relationship — trade and investments — were considered. In the immediately preceding chapter money and the general nature of monetary systems were discussed. Through a number of chapters we have over and over again been confronted with the fact that the money of one country usually has a limited acceptability in other countries and that bankers and business men are continually having to exchange the money of one country for that of another. They buy and sell money, that is, they deal in foreign exchange.

When commodities are exported from country A, the importers in country B must find some way of buying drafts on country A since the exporter wants payment in his own money. When interest falls due on foreign investments, the debtor similarly must buy drafts on banks in the country of the creditor. When the nationals of any country travel abroad they must with their own national money buy the money of the countries in which they plan to make their expenditures. Importers, debtors, and travelers may not personally perform these transactions but, if they do not, some one else must if payments are really made. For example, a lender in the United States may own a bond of some British enterprise on which interest is payable in pounds, in which case the creditor rather than the debtor will buy dollars with the pounds.

The reader is referred to the statement of the balance of international payments of the United States (Chapter 13). The credit items in the balance are the ones which entitle those who have made their various exports (visible and invisible, on both current and capital account) to receive the designated amounts from foreigners who have the task of finding, for example, dollars, by purchasing drafts on New York banks. The similar debit items indicate

the payments that must be made to foreigners. World foreign trade, as shown in Chapter 16, amounted in 1929 to \$68,619,000,000, which suggests the volume of such transactions that is involved in commodity movements alone. For a complete picture, there should be added the invisible items on current account and also gold, silver, and capital movements. Bringing these together for 1939 for the United States alone, we have a total of \$5,982,000,000 of credit items and \$7,161,000,000 of debit items. This is for only one country. The aggregate of such transactions for the entire world was many times that amount.

Readers will perhaps pardon another reminder that this part of the volume is dealing with financial machinery and that our basic concern is with commodities and services. Nevertheless, a poorly operating machine or no machine at all makes a great difference in results. A good lathe or a good loom properly operated will add tremendously to output while a poor one will decrease it. Good financial mechanisms are similarly valuable aids in production and exchange. Yet we need to keep in mind that they are merely machinery and that they must be thought of as such. A loom does not create the raw material woven on it but merely facilitates the mechanical process of weaving. If there is no raw material or no demand for the woven cloth, looms can do nothing. Money and banks as machinery can do much to affect production and exchange but, like the loom, they can function only if there is something for them to do. The analogy is not perfect, but banks, properly operated, can within limits stimulate exchange and even production but, if poorly managed, may do much to restrict them.

PRESENT CONFUSION

William James once observed that a newborn babe's first impression of the world is of "a big, buzzing, blooming confusion." Much the same reaction is experienced the first time one glances at the pages of a financial journal. In London or in New York, for example, he will find quotations for a long list of foreign moneys. Some go up and some go down but many of them are "pegged." The quotations may be sight or thirty days or "cables." Some are "forward" quotations. They are for pounds, kroner, francs, rupees, pesos, and so forth. During war, many currencies are not dealt in, at least publicly, but at other times the list is much longer, including yen, marks, lire, zlotys, lei, rubles, milreis, guilders, and so forth.

Mint Par of Exchange. The best way to start the analysis is to return to the situation that existed before the First World War. We may assume a simplicity that did not exist even then, since life is more or less confused and constantly changing. This will aid in making vivid certain of the underlying influences. Later, some of the complications and qualifications may be introduced. The pound sterling, as already noted, contained 113.00152 grains and the United States dollar 23.22 grains of pure gold. If these two are compared by dividing the first by the second, the quotient is found to be 4.866520. This leads to the statement that the pound is the equivalent of or is worth \$4.8665 at "mint par of exchange." A similar comparison of the dollar with other gold units gives the mint par of exchange at that time as: the French, Belgian, or Swiss franc and the Italian lira, 19.2905 cents; the German mark, 23.8309 cents; the Russian ruble, 51.449 cents. For convenience, these pars are often given as 4.8665, 19.3, 23.8, and 51.5, respectively.

Since these mint pars are only ratios between the weights of gold in the coins, it is possible to express the ratios by dividing, for example, the weight of the dollar by that of the franc, in which case the quotient is 5.18134 or 5.18 $\frac{1}{8}$ francs. In practice, either the one way or the other may be used and the student needs to be constantly on the alert to avoid confusion.

These mint pars have all been given with the dollar as one of the units. Similar pars may be worked out between the units of any one country and another. Thus, the mint par between the British pound and certain other countries was: United States dollar, \$4.8665; French, Belgian, and Swiss francs and Italian lire, 25.22 $\frac{1}{2}$ francs (or lire) to the pound; German mark, 20.43 marks, and so on.

Gold Points. It will be noticed that these are comparisons between two units, both of which are gold, and we shall for the moment confine ourselves to gold standard countries, discussing others later. What has been given thus far is "mint par" and not the price at which drafts on one country will be bought or sold. Like shoes or sugar, foreign exchange is affected by supply and by demand and the price at any given time will be adjusted by the relative strength of these two forces. It will be sufficient to illustrate what are called "the gold points" by using only the relationship between the dollar and the pound. ~

Since the mint par for these two units was \$4.8665, the market quotations were fairly close to that figure but if the demand in

New York for drafts on London was brisk or heavy the price would rise. It could not go far because a customer would find it more economical to buy and ship gold and meet all the costs involved rather than pay (say) \$5.00 per pound. These costs included such items as freight, insurance brokerage charges, abrasion, and loss of interest while the gold was in transit. They were not rigidly fixed, but were usually calculated roughly as about $2\frac{1}{2}$ cents per pound sterling. Accepting this figure as sufficiently accurate for our purpose, the price of sterling could fluctuate only between $\$4.8665 \pm \$.025$, that is, between about \$4.89 or \$4.90 as a high price, and \$4.84 or \$4.85 as a low price. The first of these was the "gold export point" and the second was the "gold import point" in New York. For London, the order should be reversed.

Quantity Theory of Money. Another generalization — the quantity theory of money — should be mentioned; it is that prices vary directly with the volume of money and its velocity of circulation, assuming that the amount of trade remains unaltered.

Using the United States and its financial relations with Great Britain for further illustration, let us suppose that considerable amounts are due Great Britain from the United States or (put briefly) from New York to London. Dollars would be offered for pounds and the price of the pound in dollars would rise perhaps to or slightly above the export point. This would make it profitable for some one to exchange dollars in New York for gold and ship the gold to London where it would be deposited. Then the shipper could sell drafts to buyers in New York against his newly created deposit and, at the prevailing high price we have assumed, he would have gained on the transaction. (If the quotation for sterling fell, the reverse process would occur and gold would be shipped from London to New York.)

Next is the effect of this transaction in the two centers. The loss of gold from New York, which we shall assume to be considerable, reduces bank reserves there. Because of lowered reserves the banks must keep down their deposit liabilities which means that they will be strict in making new loans and may even call some that are outstanding. Business is contracted, prices of securities and commodities decline. In London, where the gold reserves are increased, the opposite effects are felt and prices rise.

Automatic Correctives. There are, however, the automatic correctives. The high market price in dollars for drafts on London stimu-

lates exports to London, since an American shipper will get more dollars than before for his shipment. Such exporting is encouraged if a rise of prices in London is brought about by the importation of gold. British shippers find the opposite true. They must sell dollar drafts on New York, which they receive for shipments to New York for sterling, at a price which to them is low. Also, prices in the United States have declined and that country is a poorer market for British goods than before. Trade from the United States to Great Britain is enlarged and this increases the supply of drafts on London available in New York, while trade from Great Britain to the United States declines, which decreases the demand for drafts on London with which to make payments. This tends to bring down the pound in terms of dollars.

Then there is the interest rate. The shipment of gold to London lessens the loan funds in New York and interest rates there rise. In London, the enlarged supply of gold increases the lending power of the banks and interest rates decline. Those who have funds to lend are tempted to withdraw them from London for use in New York. The shift means the offer of drafts on London banks for drafts on New York banks, and the price of pounds in terms of dollars is reduced.

There are other "automatic correctives" but these are enough for our purpose. Under what was called in the preceding chapter the "gold specie standard," the gold imported into London would increase the lending power of British banks while decreasing the lending power of banks in New York.

THE "RULES OF THE GAME"

This description is the traditional one of the operation of the gold standard; no human mechanism works without friction, and in recent years there have been many changes in its operation. On the other hand, the traditional working of the gold standard should not be ignored because it describes to a considerable extent what really happened and because the effects of its operation were such that many changes have been introduced. The general theory of central bank activity was that the bank should be guided by the ideas just summarized. There were legal or traditional reserve ratios and the "correct" procedure was to operate with them in mind. If reserves increased, interest rates were to be lowered and loans (and hence deposits) expanded until the excess reserve was reduced or disap-

peared. If reserves were lost through gold export, loans (and hence deposits) had to be contracted until the reserve ratio was restored. These were the "rules of the game" — as they have been called.¹

WHEN COUNTRIES HAVE DIFFERENT STANDARDS

The preceding consideration of mint pars, gold points, and other matters applied to foreign exchange relations between countries having the same standard and the gold standard was used for illustration. The same analysis would be correct if the common standard were silver. Mention should be made, however, of other relations.²

One Gold, the Other Silver. If country A is using the gold standard and country B the silver standard, there may be complications. The value of silver in terms of gold (or of gold in terms of silver) is not stable. In 1792, 1 ounce of gold would exchange for 15 ounces of silver. While this ratio changed but little from 1687 to 1872, it altered greatly thereafter, reaching 22 to 1 by 1888 and 35 to 1 by 1898. If any new ratio once attained had continued, business could have become adjusted to it but the trend although downward was unpredictable. An exporter in a gold standard country selling to a silver standard country where his goods would be paid for in silver could not know in advance how much of his own money (gold) this silver would purchase. There were fluctuations in foreign exchange quotations even when business was between gold standard countries, but if one was on the gold standard and the other on the silver standard, there were added the changes in the relation between gold and silver. For detailed illustrations of the consequences for business, the reader is referred to *Modern Currency Reforms* by Edwin Walter Kemmerer already cited. The gold exchange standard as a device for steadying foreign exchange quotations has been described briefly in Chapter 30.

One Gold, the Other Paper. If one country uses gold and the other has no metal as a base but instead has inconvertible paper money, there are still more uncertainties. When both countries are on the gold standard, the gold points set limits. If one uses gold and the other uses silver, the fluctuations are wider but there is a limit

¹ *International Currency Experience*, Geneva, The League of Nations, 1944, pp. 66-67.

² For a more extended discussion, see Kemmerer, Edwin Walter, *Money*, chap. VIII, and for a still more elaborate treatment, the same author's *Modern Currency Reforms*, New York, The Macmillan Company, 1935 and 1916, respectively.

because silver, after all, can not be coined without restraint. There is only the available supply of silver and some of that is used for industrial and other nonmonetary purposes.

But there is no real limit to the supply of paper for monetary uses. Even if there should be a shortage of paper, each piece that is printed can be of a higher denomination. The amount put into circulation and its purchasing power must be controlled, if at all, in some other way than by reliance upon the paper supply.

One illustration in recent years is the relation between the German mark and the United States dollar from 1914 to 1923. Prior to 1914, the mark was quoted in New York at prices that fluctuated between the gold points above and below the mint par of 23.8 cents. Both countries were on the gold standard. As the years passed, more and more notes were issued by the Reichsbank and other forms of money also were put into circulation. Confidence diminished in the ability of the Reichsbank to redeem its notes with gold marks weighing 5.5313 grains each and the value of marks in dollars declined. Germany, in fact if not legally, went over to irredeemable paper money. Moreover, the rate for marks in dollars fluctuated erratically. The writer was in Berlin in June, 1922, and at first was able to exchange \$1.00 for about 300 marks. Immediately after the assassination of Walter Rathenau, the Foreign Minister of Germany, the rate fell to 325 marks per dollar. We need not here dwell on the causes. As the months passed, the mark fell still lower and by December, 1923, when the writer was again in Berlin, the rate was 4,200,000,000,000 marks for a dollar. It might have remained there or conceivably have fallen still lower, but the huge issues of outstanding money were replaced first by the rentenmark and then by the new reichsmark at the ratio of 1 to 1,000,000,000,000 between the new money and the old.

This illustration is an extreme one but it is introduced to make clear the possibility of a wide range of exchange prices if one of the countries is on a paper standard. Another illustration is the relation between the dollar and the French franc, which had been 19.3 cents per franc before 1914. By July, 1921, it had fallen to 7.77 cents and in the summer of 1926 fell to less than 2 cents. The British pound had been \$4.8665 but fell to \$3.43 in November, 1920, and was quoted at 4.77 early in 1925 a short time before gold payments were resumed. Great Britain was, in effect, on a paper standard and the United States on the gold standard but the fluctuations in

exchange quotations were less than those just mentioned for Germany and France.

Both Paper. If both of the countries concerned use paper there also is possible a wide fluctuation in the rates of exchange. There are no export and import points to set limits. Exchange quotations rise or fall unrestrained by gold movements until the movements are stopped by some other influence.

SUBSTITUTES FOR THE GOLD POINTS

In the preceding discussion of foreign exchange quotations for two countries, both of which are on the gold standard, it was noticed that when one of the gold points is reached, gold is exported or imported, often with consequent effects upon prices, and that automatic correctives operate to restore the old relationship between the currencies. How perfectly these influences work we need not here inquire. It remains to indicate what substitutes there are which set limits on the fluctuations when one or both of the countries is on the paper standard.

Currency of a country may depreciate (or appreciate) in three ways. First, paper or other representative money in a metallic standard (gold or silver) country may depreciate in terms of the standard-money as did the "greenbacks" in terms of gold in the United States during the Civil War. Second, the currency may depreciate in terms of the currency of another country as did the mark, franc, and pound in terms of the dollar in the early 1920s. Third, the currency may depreciate in terms of commodities bought with it, that is, prices may rise. These three are not unrelated to each other but they are different phenomena.

It may seem that in the case of the German depreciation preceding the stabilization of 1923 there were no offsetting influences. Actually, some were at work though they were not fully effective. When the mark depreciated externally, that is, fell in terms of the dollar, exports from Germany were encouraged. An American found that he could buy more marks with his dollars than before and that with the marks he acquired he could buy German goods which cost little if any more than before in marks but less than before in dollars. Germany was accordingly a good country in which to buy. This could continue until prices within Germany rose (internal depreciation) enough to offset the decline of the mark in dollars (external depreciation). At the same time, Germany would find

it more expensive to import from the United States. A given number of marks would buy fewer dollars than before, and although prices of American commodities might remain the same in dollars, the cost to a German in marks was increased. This increase of exports from Germany and decrease of imports into Germany by reducing the supply in that country of both these classes of goods, tended to raise their prices. Since Germany relied on outside sources for many raw materials and considerable amounts of many kinds of food, the cost of living and the costs of production were pushed upward. Thus the external depreciation tended to bring about an internal depreciation. This occurred, prices rising within the country as the exchange value of the mark declined but with a considerable lag during the early stages. Toward the end internal confidence in the mark so disappeared that prices rose more rapidly than the mark fell in the exchange market. It will be noticed, however, that there was a clear tendency for the old relationships to be restored. Prices paid by American buyers of German goods as expressed in United States dollars were temporarily lowered by the external depreciation of the mark, but were pushed upward as prices within Germany advanced. The logical outcome was for the mark to recover its old purchasing power abroad and for the dollar to lose its temporary advantage.

Purchasing Power Parity. The statement of this tendency is known as the theory of purchasing power parity. It is by no means new but was elaborated particularly after the First World War by Professor Gustav Cassel of Sweden. In 1920, he formulated it in these words:³

When two currencies have been inflated, the new normal rate of exchange will be equal to the old rate multiplied by the quotient between the degrees of inflation of both countries. There will, of course, always be fluctuations from this new normal rate, and in a period of transition these fluctuations are apt to be rather wide. But the rate calculated in the way indicated must be regarded as the new parity between the currencies. This parity may be called the *Purchasing Power Parity*, as it is determined by the quotients of the purchasing powers of the different countries.

While Professor Cassel developed this theory especially in discussing relations between paper currencies, and we have related it to the relations between the United States gold currency and

³ "Memorandum on the World's Monetary Problems," *Documents of the International Financial Conference*, Brussels, 1920, V, pp. 44-45.

German paper currency, it seems to be applicable to the relations between any two currencies even if both are gold, although in this case the gold points would, of course, set limits. The theory has been hotly debated. One of the most emphatic criticisms has been the allegation that it is difficult or impossible to choose a base date or period which is to be viewed as one of equilibrium to which there is a tendency to return. Again, it is argued that there is no suitable index of prices available and probably none can be devised that will permit an accurate check on the theory. In this volume we are not attempting to reach conclusions on a large number of theoretical issues and we shall pass on with only the observation that, in spite of some of its limitations, this theory is an interesting and helpful statement of certain tendencies.

FOREIGN EXCHANGES AND FOREIGN TRADE

In Chapter 30, at the outset of the discussion of money, we voiced disagreement with one of the contentions of John Stuart Mill. The reasons for that dissent are now evident. There may be "in the long run" some tendency such as is expressed in the theory of purchasing power parity or, if that theory be rejected, in the ups and downs of prices and of the foreign exchanges, for an equilibrium to be restored. But the movements of prices and of exchange quotations are so numerous and so frequent and so extreme that foreign trade is very definitely affected. Correctives, automatic or otherwise, are not powerful enough or prompt enough in their operation to warrant the view that there is no important connection between money and trade.

Depreciating vs. Depreciated Currencies. A distinction may be drawn between currencies that are depreciated and those that are depreciating. In the autumn of 1923, the German mark, which had been depreciating for years, was stabilized and the rentenmark and later the reichsmark were introduced. For a considerable time they held firm, and one may think of the old mark as having been stabilized at a new and very low level. If this illustration seems strained, we may mention instead the Italian lira, which was once quoted at 19.3 cents but was later stabilized at 5.26 cents. The United States dollar, which had been for a time quite steady with fluctuations explainable by events in other countries, began to decline early in 1933 but became steady again in 1934, by which time it had ceased depreciating and was depreciated.

While the currency of any country is depreciating, and often for a time thereafter, the exports of that country are stimulated. After depreciation is completed, this stimulus to exports tends to disappear. Prices in one or both of the two countries become adjusted to the new exchange quotations or the exchange quotations become adjusted to the new price levels and the older situation is more or less fully restored. It is not correct, therefore, as a general proposition, to say that depreciated currency stimulates exports. It is during the period when depreciation is taking place and perhaps for a time thereafter that export trade is encouraged and import trade is discouraged.

Appreciating Currency. To depreciate a currency is more tempting and usually easier than to appreciate it — to raise its value in terms of other currencies or in terms of commodities. A decline of commodity prices within a country — internal appreciation — is apt to occur in spite of the desires of officials or of the general public. A rise in prices, on the other hand, is so stimulating to the groups benefiting from it, that the losers whose real incomes are being lowered can do little except attempt to secure an advance in their own money incomes.

When a currency depreciates externally, there is a stimulus to exports and we have already discussed the tendency to look with favor upon expanding exports and to “view with alarm” an increase in imports. Since depreciation encourages exports and discourages imports, it is accepted with less hostility or even with real enthusiasm.

Yet currencies often appreciate. This is of necessity the case if it is the result of action by another country which has depreciated. A foreign exchange quotation is merely a ratio as is any other price quotation. Thus the depreciation of the pound by Great Britain in 1931 brought a rise of the dollar and of many other currencies in terms of the pound. The dollar had a new relation to the pound without any action on the part of the United States. The effect was to encourage British imports into the United States and to discourage exports from the United States to Great Britain.

However, countries do at times appreciate their currencies. Some years ago the Italian lira, which had been at 19.3 cents before the First World War, was quoted at 4 cents. Italy raised it to 5.26 cents and held it there for some years, apparently because of some humiliation over its decline and because the advance seemed to be an evidence of economic strength. In 1925, Great Britain took a similar

action. During the First World War, the pound had depreciated and remained for years below its old relationship to the dollar which had been \$4.8665. In November, 1920, it averaged \$3.43. For the British there were involved not only sentiment but also a distinct advantage to some in raising the pound to its former level. British exporters preferred to let matters stand, but British commodity imports are greater than commodity exports and importers of food and raw materials gained. No matter whether the step was on the whole wise or unwise, it was taken, and on April 1, 1925, the rate was restored to its old price in dollars.

We may elaborate on this action although it is a partial anticipation of matters to be considered in the next chapter. Much that has been said to this point has assumed a rather free operation of a competitive world economy with little or no interference. For example, "automotive correctives" were described. This needs qualifications which later will be developed a little more fully and need be touched upon only briefly in this connection. If all had worked smoothly, with Great Britain indebted to the United States notably on the war debt account, pounds would have been used to buy dollars, the pound would have fallen to a point where gold would have moved to the United States, this imported gold would have increased United States bank reserves, interest rates would have fallen, and business would have been stimulated and prices have advanced. These higher prices would have encouraged the sale of British commodities in the United States. This would have pleased British exporters and also have facilitated the payment of British public and private debts to the United States.

Such developments would have been in accordance with the "rules of the game" and were definitely expected. But nothing of the sort happened. Prices in the United States did not rise and the British market there was not improved. The gold moved but it was "sterilized." Federal reserve notes were replaced in general circulation by gold certificates, thus keeping the gold out of the bank reserves, and, in addition, the Federal reserve banks increased their gold assets from the bare legal amount held in 1920 to a level far above requirements.

This, intentionally or otherwise, put pressure on the British. It seemed important to them to have prices rise in the United States but an alternative method of altering the relative position of the two price levels was to lower British prices. Internal deflation or

appreciation of the currency would put the entire economy under strain. Some prices are more inflexible than others and respond less readily. Thus, interest on debts is fixed in money terms for the period of the indebtedness. Wages are set in many cases by agreements with unions and reductions are opposed. In spite of all this and in the face of warnings against it, the step was taken.

Assume that a British coal operator had been selling coal at the pit mouth for 10 shillings a ton. An American buyer, exchanging dollars for pounds at the rate of say \$4.50 would have been paying \$2.25 cents a ton for the coal. With the pound at the new level of \$4.86, the cost to him was \$2.43, or 18 cents more per ton, enough difference to discourage foreign sales of coal. The British coal operator faced the alternative of losing some of the foreign market or of lowering his price in order to hold it. Perhaps he could lower his price only in case he could reduce costs and, with wages the largest item, it was to be expected he would endeavor to get wages down. There followed the disastrous strike of 1926. There had been deflation in Great Britain as in the United States shortly after the First World War but the period of deflation beginning in 1925 was an additional strain on that country.

Pegged Exchanges. Enough has been said to show that wide and particularly sudden fluctuations in foreign exchange quotations affect general economic conditions. During the early part of the First World War, the British and the French governments made heavy purchases in the United States. This meant offering pounds and francs for dollars with a tendency for the dollar to rise in terms of the other two or, conversely, for them to fall in terms of the dollar. This called for more and more pounds and francs with which to acquire the dollars to pay for the urgently needed commodities. After a little delay, they were "pegged" — the pound, for example, at \$4.76. This could not be done merely by a decree. It was still necessary to find the dollars, an action which was, however, done systematically. British foreign assets were marketed in the United States, gold was shipped, and credits were arranged. In an orderly way the price was maintained. After the war was over, the peg was withdrawn and the pound fell, going for a time below \$3.50. In the Second World War, it was again pegged, the level chosen being \$4.04.

While war is particularly an occasion for the practice of pegging, the practice has been followed on other occasions. Many currencies have been pegged by various methods and for various purposes.

Overvalued and Undervalued Currencies. After the British in 1925 had announced a readiness to redeem paper money with gold pounds of the old weight of 113,00152 grains and had thereby restored the quotation for the dollar to \$4.8665, a very considerable readjustment of the price structure occurred. This was so pronounced and so prolonged and so serious in its effects that we may say that the pound was overvalued. If the rate chosen had been \$4.00, probably the pound would have been undervalued and there would have followed an upward adjustment of British prices and incomes. Between these extremes there was a rate that would have reflected neither overvaluation nor undervaluation but that would have been just correct.

The concept is attractive but its application is far from easy. One approach might be with the aid of the theory of purchasing power parity already described. If there could be an ideally free play of supply and demand forces in a fully competitive market, especially in a "normal" time, there would result a quotation for the pound in terms of dollars that we might call the normal or natural rate. But what or when is a normal time, and to what extent can we be sure there is generally free competition in the foreign exchange market? And even if such a rate were determined, for how long would it remain appropriate?

It may not be possible even in "normal" times to let market forces settle the rate. During the Second World War, many currencies have not been dealt in and most of the rest have been pegged. During the war, there have been the most extreme changes in the price and income structure of nearly every country in the world. But the changes have not been the same in direction or at least not in degree and for many there are presumably no reliable records. Yet some relationship must be set up. Undervaluation will encourage exports, perhaps causing some countries to lose goods they can ill spare. Overvaluation may flood the markets with imports in such quantities that their domestic economies will be hampered in their recovery. A serious error in the rate chosen will compel later adjustment with repercussions especially on those who have entered into contracts on the first basis.

Foreign Exchanges as a Political and Economic Weapon. Power to adjust foreign exchanges may be an important weapon in political and economic struggles. It is frequently said that it was so used between the two wars and that for a number of years in that period

there occurred competitive depreciation. Critics allege that the depreciation of the pound in 1931, no matter for what reason, gave the British an advantage in the sale of their products in the world markets. It is claimed that the similar action by the United States in 1933 was for the purpose of restoring American business to the competitive position that had existed prior to the British action in 1931. And, further, it is argued that this depreciation of the pound and the dollar — the two most important currencies in the world — compelled other countries shortly to take similar action.

As Germany extended her economic controls, particularly in southeastern Europe, she was able to establish relations between her own money and that of the other countries that involved an overvaluation of the mark and resulted in the importation into Germany of vast quantities of commodities she desired to secure. The foreign exchanges are not something passive, merely reflecting in a price the play of "natural" forces, but may be and often are an active influence both in economics and in politics.

SELECTED REFERENCES

Cassel, Gustav: *Money and Foreign Exchange after 1914*. New York: The Macmillan Company, 1922.

United States Tariff Commission: *Depreciated Exchange and International Trade*. Washington: 1922.

Viner, Jacob: *Studies in the Theory of International Trade*. New York: Harper & Brothers, 1937, especially chap. VI.

MONETARY EXPERIENCES AFTER THE FIRST WORLD WAR

Monetary and banking institutions are machinery for facilitating the production and the exchange of commodities and services. Nevertheless, they often exercise an active influence. There has not in any literal sense been an international monetary standard but each country has had its own standard. Occasionally, by special agreement, several countries have undertaken to set up identical or nearly identical monetary systems, but what is often called the international gold standard has been only a number of different national standards, each using gold as a base.

International transactions have been greatly affected by these systems and the behavior of central banks and governments has to some extent been along lines that have led to the expression the "rules of the game." These "rules" have not been technically binding and have not been blindly followed but there has been enough of an adherence to warrant an analysis based on them. They are, however, being modified. Breaks with the past are never complete and abrupt but between the two world wars changes have come that may persist and they should be noted.

TWO REASONS FOR CHANGES IN INTERNATIONAL MONETARY TRANSACTIONS

Two reasons may be mentioned for these changes which are related but may be stated separately. The first is the extent to which each national economy was dependent on conditions in the external or general world economy. Within any one country, economic matters might perhaps be handled reasonably well. In some other country or countries, disturbances might develop or actions be taken that would suddenly alter the picture in the first country. These external developments may or may not have been in any sense the fault of the people or the government of the country in which they occurred but in an interdependent world their repercus-

sions were wide and serious. For example, there seems to be no reason for concentrating on any one or a few countries complete responsibility for the prolonged depression in the thirties, yet it was felt everywhere, even in countries where blame could certainly not be placed.

Several illustrations may help to make the general point clear. For some time prior to July, 1926, the French franc had been declining. As a result of this and of the possibility that it would fall still more, there was a considerable flight of capital from France, some of the funds accumulating as balances in Great Britain. Then the franc was stabilized (*de facto* at first) and confidence returned. There started a repatriation of the funds which placed a burden on the British banks from which they were withdrawn, and was serious enough to cause great concern. In 1927, there was a meeting in New York attended by Benjamin Strong of the New York Federal Reserve Bank, Montague Norman of the Bank of England, Hjalmar Schacht of the Bank of Germany, and Charles Rist of the Bank of France. Shortly thereafter the rediscount rates of the Federal reserve banks in the United States were lowered, presumably to lessen the strain on London by making the United States a less desirable place to use funds. This was done primarily because of something that had occurred outside the United States and not because of anything within the country that required attention, and presumably because it was felt that too much of a disturbance in Great Britain would have wide repercussions.

Within a year a new situation developed. While money rates had been lowered in the United States, there soon came a speculative advance in the New York security markets, perhaps in part because the reduction made the public unduly optimistic. By 1928, the opportunities for gains on the rising market led to a flow of funds to the United States. In other monetary centers, rediscount rates were raised, which in turn led to a stiffening of market rates with a considerable strain on business and also to sharp criticisms of the United States.

In an earlier chapter, reference has been made to the crisis in Europe in May, 1931, when the Creditanstalt in Vienna failed. There ensued the Hoover moratorium, the series of standstill agreements, and the virtual collapse of payments on international indebtedness. These and other occurrences brought internal repercussions in many countries.

A second reason for some of the changes of this period is the growth of the belief that there should be an acceptance of social responsibility, through government, for general economic conditions within a country, and that the financial machinery should be used to maintain national productivity at a high and steady level. This view is a shift from mere commodity price stability as a criterion. During the twenties, commodity prices (in gold) had fluctuated only within rather narrow limits, but in spite of this steadiness the world was soon suffering from the most serious depression in its history. Many came to believe that mere adjustments of rediscount rates and open market operations were inadequate, often coming too late and acting as corrective rather than as preventive devices. There was a noticeable shift to the view that such matters as a high and steady level of employment were or should be the prime considerations in shaping policy. The contention that there may have been exaggerated hopes regarding what governments can do may be correct but the point is that these ideas were gaining ground. Also, there were the sudden and large shifts of funds from one center to another known as "flights of capital." The accumulations of these funds in particular centers were called "hot money."

The Gold Exchange Standard. In Chapter 34, we shall describe at more length the arguments about the gold standard that were carried on in the interwar period. During the First World War, gold payments were suspended in most of the belligerent countries. There was active discussion, the weight of expert judgment being strongly to the effect that each country should as promptly as possible resume gold payments either on the old basis or on a new one. In one way or another various countries did resume.

Figure 26, entitled "Countries on the gold standard, 1921-1938," shows the extreme changes that occurred. During the First World War, gold payments had been suspended by a large number of countries and, until 1928, the general effort was to resume gold payments. Slowly at first and then more rapidly the return was accomplished.

One concern quite generally expressed was that there might be an inadequate amount of gold to satisfy the desire for it in bank reserves. Unless some way could be found for economizing gold, there seemed to be nothing possible but a general decline in prices. To avoid this, it was proposed that the gold exchange standard be more widely employed. The idea of a gold exchange standard was

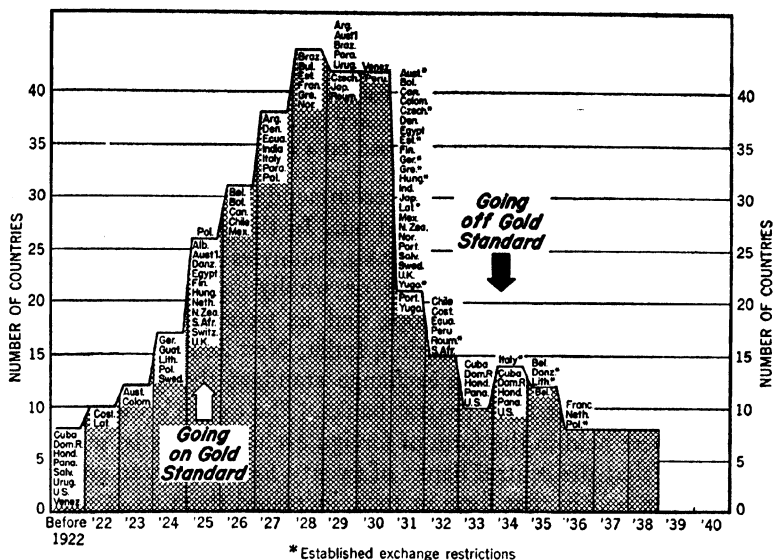


FIGURE 26. Countries on the gold standard, 1921-1938. (From *Charts Relating to the Bretton Woods Proposals*, United States Treasury, April 30, 1945)

not new, one early use being the arrangement for regulating exchange between London and Edinburgh in the eighteenth century and another a convention in 1885 between the central banks of Denmark, Norway, and Sweden. Its adoption by Great Britain and India, in the Philippines and elsewhere, has already been described.

At the international conference held at Genoa, Italy, in 1922 the Economic and Financial Commission urged in its report that an international convention be adopted which "should embody some means of economizing the use of gold by maintaining reserves in the form of foreign balances, such, for example, as the gold exchange standard or an international clearing system." Resolution 11 of this report contained the following:

1. . . . The maintenance of the currency at its gold value must be assured by the provision of an adequate reserve of approved assets, not necessarily gold.
2. When progress permits, certain of the participating countries will establish a free market in gold and thus become gold centers.
3. A participating country, in addition to any gold reserve held at home, may maintain in any other participating country reserves of approved

assets in the form of bank balances, bills, short-term securities, or other suitable liquid resources.

4. The ordinary practice of a participating country will be to buy and sell exchange on other participating countries within a prescribed fraction of parity of exchange for its own currency on demand.

5. The convention will thus be based on a gold exchange standard. . . .

No action was taken on the recommendation for a convention but the idea proposed was carried out. In the period from 1922 to 1931 the central banks of twenty-six countries were authorized to hold their legal reserves in part or wholly in foreign exchange. Nineteen of these were in Europe and six were in South America, the other being Egypt. In addition, India, New Zealand, Argentina, and Venezuela practiced the exchange standard though during this period they did not have central banks. The extent to which legal reserves were held in the form of foreign exchange may be indicated by noting that the central banks of twenty-four European countries held 27 per cent in that form in 1924, increased them to 42 per cent in 1927 and in 1928, and reduced them to 8 per cent in 1932. If France, whose holdings were especially large, is omitted, the percentages rose from 35 in 1924 to 40 in 1927 and fell to 11 in 1932. Expressed in United States dollars, the amount of these reserves of the twenty-four banks was \$845,000,000 in 1924; the total rose to \$2,520,000,000 in 1928 and fell to \$505,000,000 by 1932. Their total reserves including both gold and foreign exchange were \$3,126,000,000 in 1924, \$6,010,000,000 in 1925, and \$6,384,000,000 in 1932.¹

This record suggests several comments. There may have been a considerable economy in the use of gold, since by 1927 42 per cent of the reserves of twenty-four countries were in the form of foreign exchange. It is conceivable that the reserve percentages were placed higher than they would have been had the requirements been 100 per cent gold. However, the reserve ratios adopted were in the range from 30 to 50 per cent, which seems to have become a sort of "customary" requirement, so it seems more reasonable to assume that the foreign exchange standard was really effective.

Accordingly, it may be said that gold was economized. As pointed out in Chapter 31, "devaluation" of currencies had occurred on a considerable scale, which increased the number of dollars per ounce

¹ *International Currency Experience*, Geneva, The League of Nations, 1944, p. 235. The writer has used this volume extensively in the preparation of this and the following chapter.

of gold held. But economy through the gold exchange standard gave pyramided reserves. Gold held by the Bank of England was a base for an aggregate of liabilities some of which were domestic but a considerable part of which were obligations to banks in other countries. Also, many private parties in foreign countries, especially banks, held sterling exchange in their assets. What was true of Great Britain was true also of the United States and other centers where funds were thus held.

In referring to the traditional operation of the gold standard, attention was called to the way in which imports and exports of gold caused or at least might bring expansion and contraction of business and how this was more pronounced in the case of the gold bullion standard. This, it was explained, was on the assumption that the "rules of the game" were observed. Under the gold exchange standard with its "pyramiding," these possibilities were enhanced. Moreover, the period was one in which there were large "flights of capital" and accumulations of "hot money," namely, balances that might quickly be withdrawn. This increased the hazards for the country holding the balances. If, while they were on hand, some having been accumulated through importations of gold, domestic business was allowed to expand by whatever amount was dictated either by law or by custom, the sudden withdrawal of the "hot money" might raise the price of drafts on the withdrawing country to the gold export point. An outward shipment of gold would lower the domestic gold reserves, forcing a contraction of business and a fall in prices. The difficulties of the gold standard were present but to an aggravated extent.

As a result there developed an emphasis on the accumulation of "international currency reserves" or "assets" as contrasted with "domestic assets." Reserve ratios are for the purpose of setting a maximum limit to the expansion of bank liabilities, primarily domestic liabilities. As such expansion occurred, excess reserves diminished and there was left no reserve for meeting foreign withdrawals. "It meant that the cover reserves were not international currency at all."² Yet the period was one in which funds were being shifted from one financial center to another. The governments and the central banks in each were in an awkward position. If in the receiving country domestic business expanded on the basis of the imported funds, it might be necessary at almost any time to contract, thus

² *Ibid.*, p. 11.

putting business through alternating expansion and contraction, through inflation and deflation.

It should again be emphasized that in the absence of a world organization or of international commitments of some kind, national governments can and do assume at least some responsibility for economic conditions in their respective areas. That there are strong pressures for assistance in periods of deflation, even by groups which oppose "government interference," is evidenced by what occurred in the United States subsequent to the crisis of 1929. That governments and central banks will undertake to do something has also been shown for decades by the practice of adjusting rediscount rates and through open market operations.

Mention has been made of the methods used by the United States to "sterilize" the gold imported into that country shortly after the First World War. If the "rules of the game" had been followed, this gold would first have enlarged the gold holdings of banks in the United States. These banks would have been in a position to lend more freely and would have lowered their rates. Borrowing would have been encouraged and deposit liabilities thereby increased. Borrowers would have used their funds to expand their activities, purchasing materials and employing labor. Prices would have risen. Imports would have been encouraged and exports discouraged. These possibilities were viewed with concern. There was the traditional tendency to look with alarm on a shift in the trade balance but there was also a dread of another advance in prices. The country had only begun to recover from the collapse of 1920 and a repetition of the experience was greatly feared.

Accordingly, two steps were taken which "sterilized" the incoming gold, which amounted to \$1,457,796,000 (net) in the years 1921-24, inclusive. As Federal reserve notes came into the banks, gold certificates were paid out, thus placing in the hands of the public (in certificate form) some of the imported gold. Also, the gold held as reserve by the Federal reserve banks was increased, raising the percentage of the gold held against liabilities.

"INTERNATIONAL CURRENCY RESERVES"³

These actions in the United States were, however, to an extent out of line with the general trend to use gold less as a circulating

³This heading and the following one are taken from *International Currency Experience*, *op. cit.*

medium. Other forms of money replaced gold in the hands of the public, the gold itself being held by the banks, particularly by central banks. The purposes of reserves are to create and maintain public confidence in the solvency of banks and to meet sudden withdrawals by keeping an adequate amount of bank assets in a form acceptable to creditors. With monetary gold held in large part by central banks, which could not or did not pay it out for domestic use, these reserves continued to have the desired psychological effect but were usable only or chiefly in payments abroad. These foreign liabilities were large and "hot."

Perhaps more dignified terminology should be employed to describe them. Capital movements, either short-term or long-term, may be equilibrating. If the balance of payments of a country is upset by a large increase in imports, the sale abroad of long-term or short-term promises to pay may fill the gap. If there is an excess of exports, the purchase of foreign obligations may serve the same purpose. But capital movements also may be disequilibrating. Instead of helping to restore the equilibrium of the balance of payments, they may disturb the equilibrium and assets of some other kind may be needed to meet the strain.

Broadly speaking, there are two ways of coping with the difficulty. One is for the central bank to retain an adequate amount of "international money." Gold has been acceptable for this purpose and still is. Also, foreign exchange balances on other centers may be and often are suitable. Each of the twenty-four countries of Europe may be grouped as debtor or as creditor (eighteen debtor and six creditor). The holdings of gold and foreign exchange by their central banks at the end of several designated years expressed in millions of old United States dollars were:⁴

	1924	1928	1932
Six creditor countries			
Gold	1,348	1,987	4,872
Foreign exchange	<u>159</u>	<u>1,878</u>	<u>348</u>
Total	1,507	3,865	5,220
Eighteen debtor countries			
Gold	933	1,503	1,007
Foreign exchange	<u>686</u>	<u>642</u>	<u>157</u>
Total	1,619	2,145	1,164
All twenty-four countries			
Gold	2,281	3,490	5,879
Foreign exchange	<u>845</u>	<u>2,520</u>	<u>505</u>
Total	3,126	6,010	6,384

⁴ *Ibid.*, pp. 41 and 235.

It will be noticed that total reserves of the twenty-four central banks increased and, if every year from 1924 to 1932, inclusive, had been given, an increase would have been noticed in every year except from 1931 to 1932 (when there was so large a decrease in foreign exchange holdings that the total holdings were lowered in spite of a large increase in gold). Foreign exchange rose sharply and then declined. If the data for the Bank of France are examined separately it is seen that much of what occurred was explainable by that bank's accumulation of foreign exchange, which rose from only \$14,000,000 in 1924 to \$1,287,000,000 in 1928 and fell to \$176,000,000 by 1932.⁵ The reasons for this shift in the assets of the Bank of France have already been mentioned — repatriation of the funds after the stabilization of the franc and the reduction of foreign balances by the importation of gold subsequent to the failure of the Creditanstalt in Vienna in May, 1931.

“NEUTRALIZATION, DESIGNED AND UNDESIGNED”

There are said to have been many political as well as economic explanations for what occurred during this period but our interest is in the economic causes, which were in themselves very important. No matter what the basic reasons, the results were profoundly disturbing. In spite of the intent and the specific provisions of the gold exchange standard, a strong effort was made by most of the central banks to add to their holdings of gold. Foreign exchange assets increased and then were sharply reduced.

Because of these numerous and large shifts of funds, there was a considerable growth in the use of devices that were designed to neutralize the effects of these shifts on business within each country. We have noticed that the traditional effect of a heavy influx of funds was to increase the assets and expand the domestic activities of banks in the importing countries and that a withdrawal of funds had the opposite tendency. The next step is to note some of the efforts made to prevent these fluctuations by means of neutralizing devices.

The United States. One method of neutralization or “sterilization” has already been mentioned — that followed by the United States in the early twenties. For reasons directly connected with the war and its aftermath, the monetary gold stock of the United States

⁵ The Bank of France was not one of the central banks operating technically on the gold exchange standard.

increased in the four years ending December 31, 1918, by \$6,347,000,000, and in the next six years ending December 31, 1924, by \$1,339,000,000. This increase might have been expected to raise prices in that country. There were speculative advances in real estate and later on in the security markets but commodity price levels, which had advanced during and immediately after the war, fell sharply with the crisis of 1920 and thereafter held within a narrow range — from 147 in 1921, to 159 in 1925, to 140 in 1928 — the base year being 1913. This steadiness of prices was no evidence of general economic stability as was shown by the sharp decline following the crisis of 1929. Moreover, it created difficulties for the British, who would have been aided by a price rise in the United States.

For the next five years gold continued to enter the United States but in smaller amounts, the net increase in monetary gold stock being \$215,000,000. The attitude in that country is summarized in the following statement by a prominent New York banker:⁶

The attitude of the reserve authorities and of bankers generally toward gold imports in these years was one of apprehension and anxiety. Far from being viewed as advantageous and desirable, they were regarded as abnormal, temporary, and, therefore, a menace to financial stability. Bankers generally viewed with misgivings the development of a structure of credit upon them, considering it probable that within a short time the re-establishment of Europe upon the gold basis, together with economic recovery, would result in the recall of a substantial portion of this gold, thereby possibly requiring a drastic contraction of credit in the United States. Competitive conditions practically compelled an expansion of credits, as additions to reserves occurred, but a wholesome prudence forbade them to incur a continuing indebtedness at the reserve banks for the purpose of serving the speculative operations of the stock markets, by this time of increasing importance.

Great Britain. In Great Britain after the stabilization of the pound early in 1925 at \$4.8665 in terms of the dollar, there seems to have been "a systematic policy of neutralization." This was carried out by the Bank of England through open market operations, a device that was not new but that was employed more systematically and extensively. The purpose of the neutralization efforts was first to stabilize the amount of credit available to British business. As gold was imported, the Bank of England sold securities, thus

⁶ Roberts, George F., *Selected Documents on the Distribution of Gold*, Geneva, The League of Nations, Gold Delegation, 1931, p. 46.

acquiring cash for itself by reducing the amount available for use in the community. When the flow of funds was outward, the reverse procedure was followed. In order to prevent a reduction of funds in the market, securities were purchased. Summarized, the results were:⁷

Thus, between the second quarter of 1926 and the third quarter of 1928, the deposits of the Bank of England varied only by four millions. This small variation in the deposits of the Bank was, however, accompanied by an increase of thirty-eight millions in the reserve of the banking department, and by a reduction of thirty-six millions in the holdings of securities by the Bank. Similarly, between the third quarter of 1928 and the last quarter of 1929, the gold holdings of the Bank of England fell by £31,000,000, whilst the securities increased by £21,000,000, the deposits fluctuating only by £3,000,000. Again, between the last quarter of 1929 and the third quarter of 1930, the gold holdings of the Bank rose by nineteen millions, whereas the securities had fallen by twenty-two millions. The long-run intention of the Bank is, therefore, fairly clear; it is to maintain deposits at a fairly steady level, while adjusting its assets in either direction as gold flows in or out. Over the whole period, since the return to the gold standard, however, there has been a tendency for deposits to fall, and to this extent it may be argued that the Bank of England has been pursuing a deflationary policy.

This statement about the Bank of England should be related to what has previously been said about the stabilization of the pound at its old level. Many had urged that stabilization should have been attained at a lower level, perhaps \$4.50, but the other view prevailed. This decision necessitated a decline in prices in Great Britain with attendant strains. The bank was apparently endeavoring to steady the decline.

France. In some respects, the situation of France was different from that of the United States and Great Britain. For some years prior to 1926 the franc declined until it was quoted at less than 2 cents. The distrust of the franc and the fear that it might depreciate as had the mark, caused a heavy capital flight from the country. In the summer of 1926, the Poincaré Government succeeded in restoring confidence and the franc rose, being stabilized *de facto* in December of that year, and *de jure* in 1927, at 3.918 cents. Capital returned and was invested in government securities by the owners or by the commercial banks with which they deposited their funds. The Bank of France had no legal authority to engage in open market

⁷ Gregory, Sir T. E., *Selected Documents on the Distribution of Gold*, *op. cit.*, p. 28.

operations but these transactions accomplished much the same result. As capital flowed back to France, the bank acquired gold and foreign exchange which was the counterpart of the inward capital movement. Its gold increased from \$710,000,000 at the end of 1924 to \$1,254,000,000 by the end of 1928 and its holdings of foreign exchange from \$14,000,000 to \$1,287,000,000 in the same period. The increase for the two combined was from \$724,000,000 to \$2,541,000,000. There might have been some rise in prices but instead the gold reserve ratio of the bank increased until by 1934 it was 80 per cent, the legal requirement being only 35 per cent, and the assets of the bank did not expand until in 1935. Prices fell and in 1935 were only 60 per cent of the 1929 level. Further discussion of "neutralization" by France will be postponed until a little later when the "gold bloc" countries will be considered.

These illustrations are sufficient for the present. At the beginning of this chapter it was pointed out that, subsequent to the First World War, there was a growing attempt by each national economy to protect itself from disturbances in the world economy and also for governments to assume greater responsibility for the stabilization of their domestic economies at a high level and to use other tests than the price level as a criterion. Among the devices used was the attempt to "neutralize" the large movement of gold and foreign exchange. The discussion of trade and capital movements in the earlier chapters showed that the interwar period was one of increasing "protectionism" in a broad sense.

An appraisal of the neutralization policy is not easy. Until the crisis of the thirties it seems to have had some measure of success. Instead of letting imports of gold expand domestic assets and raise prices and letting exports have the reverse effect, a measure of control was introduced. There was special provocation to do this because of the generally disturbed situation involving huge movements of funds from one country to another. More moderate movements, if not neutralized, would have had only slight effects but the larger ones would have been much more serious. After 1931 more difficulties were encountered in the attempt to impose controls and these will be considered in the next chapter.

What has been said can not be appraised by itself. Pressures arising from reparation claims and war debts, general economic dislocation throughout the world, long-term as well as short-term capital movements, the threat of another world war — these and other factors

complicate the picture. These forces were themselves the reason for an attempt to neutralize their effects, while their strength was so great as to imperil and perhaps nullify any effort to control them.

OVERVALUATION AND UNDERVALUATION

It is not always easy to decide whether a given currency is overvalued or undervalued. As an abstract concept, an "equilibrium" may be understood as a value or rate in terms of other currencies that would be set in the market in "normal" times by competitive forces. But to test a currency with a view to deciding the equilibrium rate is another matter. If so-called "automatic forces" could operate there would be no occasion to set rates. But they certainly did not operate in the period under discussion and neither the purchasing power parity approach nor any other is of much help, even if suitable at other times. There are, however, certain illustrations of overvaluation and undervaluation about which there is sufficient agreement to warrant our assuming them.

The Pound Sterling. When Great Britain resumed gold payments in 1925 in gold pounds of the old weight (113.00152 grains pure gold), and with the dollar at the former mint par of \$4.8665, the pound was clearly overvalued. It was necessary for the British to undergo extensive and painful readjustments of their domestic economy — to deflate their internal price structure. As always, other factors were involved but the overvaluation seems clear. After more than six years the attempt was abandoned in 1931 and gold payments were again suspended. At the time this is written, fifteen years later, there has still been no formal change in the gold content of the pound. The "mint par" with the United States dollar (now 13.71 grains) is \$8.2397.

The French Franc. Although the French franc, which had fallen to less than 2 cents in 1926, was raised to 3.918 cents and maintained at that level for a number of years, it was still undervalued. The effect of overvaluation is to encourage imports and to discourage exports. The effect of undervaluation is to discourage imports and to encourage exports. Overvaluation, to an extent to be significant, may be followed by internal deflation — an adjustment of prices downward. Undervaluation may be followed by an internal rise of prices — inflation. In either case, however, other influences may offset this tendency. This was true in France for prices fell rather than rose subsequent to 1926. Exports from France rose in weight

from 32,549,000 metric tons in 1926 to 41,128,000 metric tons in 1928 but the value in francs was lower in 1928 than in 1926.

Exchange Controls. These complications have been increased by the extensive use of exchange controls. In Chapter 20 a short reference was made to them. We may now elaborate briefly in the light of what has been said in the intervening chapters.

Like nearly all other economic terms, exchange control may be defined broadly or narrowly. One statement of its purpose is:⁸

The primary function of exchange control is to maintain without loss of gold a rate of foreign exchange higher than that which would rule in a free market. It is also desired in some cases to ensure a sufficiency of foreign bills for payments regarded as particularly pressing, or to prevent import prices from rising.

This description is broad. It will be noticed that such devices as altering rediscount rates and engaging in open market operations affect the exchange rate. What we have in mind here, however, is the more formal methods that have been employed, particularly those after 1931, by a large number of countries to meet the special conditions of that period. This still might include many devices and we may narrow the term still further by defining it as "the partial or complete control of the purchase and sale of foreign exchange by some authority designated by the government with power to affect the rate of exchange."⁹

Even this definition is broad and the practices covered by it are numerous.¹⁰ "The task of the control authorities is twofold: (1) to secure the delivery of foreign exchange by exporters and (2) to allocate foreign exchange among importers and others."¹¹ Foreign exchange is the supply of funds in foreign centers belonging to the nationals (or government) of the country exercising the control. Its origin is primarily in the exports of the country or in borrowings from abroad and in other invisible exports such as the interest on foreign investments. The occasion for endeavoring to have this exchange delivered to an exchange control authority is a scarcity. To bring it under

⁸ Haberler, Gottfried, *The Theory of International Trade*, New York, The Macmillan Company, 1936, pp. 83-84.

⁹ Dietrich, Ethel B., *World Trade*, New York, Henry Holt & Company, 1939, p. 125.

¹⁰ For a more complete discussion see Dietrich, Ethel B., *op. cit.*, chap. VI; Gordon, Margaret, *Barriers to World Trade*, New York, The Macmillan Company, 1941, chaps. IV and V; Heuser, Heinrich, *Control of International Trade*, Philadelphia, P. Blakiston's Son & Company, 1939, especially chaps. X and XIV.

¹¹ *International Currency Experience*, *op. cit.*, p. 172.

control is not to increase the amount in existence but merely to concentrate its use with the purpose of furthering the interests of the national economy. There are many ways by which controls may be evaded. Foreign investments, for example, may be concealed in various ways and the returns in the form of interest or dividend checks may be sold in some kind of black market. Exported commodities may be sold at a low price to a subsidiary corporation in a foreign country and resold at a higher price for more foreign money than is technically reported. Popular opinion may not support the control measures and their enforcement may be difficult or impossible.

Allocation of the supplies of foreign exchange among importers and others also has its difficulties. There are four decisions to be made by the control authorities:¹²

(1) How much to allot for different *purposes* (commodity imports, debt service, tourist traffic, etc.); (2) how to distribute the exchange available for imports among different *commodities*; (3) how to ration exchange among different *firms*; and (4) how to distribute the total among different *countries*.

Exchange controls spread rapidly beginning in 1931 but there is a still earlier illustration that is striking. Reparation claims against Germany after the First World War have already been described. As the German Government undertook payments, the demand for the pounds, dollars, francs, guilders, and other moneys acceptable to the creditors was an addition to the demand for other purposes such as the payment for foodstuffs and raw materials imported into Germany. The aggregate demand was so great as to depreciate the mark (externally). After the crisis in 1923, the Dawes Plan of 1924 was adopted and a representative of the Allied Governments known as the Agent General for Reparation Payments was designated. He was placed in charge of these payments with the general instruction that remittances on reparations account should be made only to the extent that the mark was not depreciated.

There is no way by which exchange controls, narrowly defined, can be disentangled completely from other forms of control over trade and capital movements. Especially is this the case with such controls as import quotas. Admitting this difficulty, we may notice some of the controls over foreign exchange as they multiplied after

¹² *International Currency Experience, op. cit.*, p. 173.

1931. It will be remembered that this was the year of the financial crisis precipitated by the failure of the Creditanstalt, which was followed shortly by the Hoover moratorium on international public debt payments, the Standstill Agreement on German short-term private indebtedness, and the suspension of gold payments in Great Britain on September 21. One needs but little imagination to see that the strain on international transactions was severe and that it was deemed vital to husband supplies of foreign exchange and use them to the best possible advantage. That bad judgment was used at times and that in some instances much of the available exchange was used for purchasing materials to be used in rearmament, are not reasons for ignoring the seriousness of conditions as the depression became world wide.

Beginning with Bulgaria in 1918, followed by Portugal in 1922 and by Iran and Turkey in 1930, exchange control measures were widely introduced. By January 1, 1939, there were forty-eight countries in which such measures had been adopted. A number had suppressed these measures by that time and two (Iran and China) had first suppressed and later restored them. The movement was widespread.¹³ Those who wish to study the details of the various controls are referred to other sources, including the ones that have been cited.

Here we are concerned only with the broad movement and with its relation to the other aspects of the world economy. International migration, as we have noticed, has diminished in recent years. While birth rates are declining in some countries, there is still some excess of births over deaths in most countries, and there is a high superficial density of population in many areas. "Natural resources" are not evenly distributed and their location does not fit and can not be made to fit population distribution. The world is "a wretchedly poor place" and if we desire to make it less wretched there should be a generous exchange of commodities and services.

Yet the period we are considering is one in which trade restrictions rapidly increased. It is not sufficient merely to denounce this trend and to designate certain individuals or even certain countries as scapegoats. The causes are too deep-seated and too widespread for any such simple approach to suffice, even though it may give us emotional satisfaction. The basic considerations to be kept in mind are the highly developed technology of the modern world; great

¹³ See Gordon, Margaret S., *op. cit.*, tabulation, pp. 54-55.

interdependence of all of its parts; and the "institutional lag" and also the intellectual and emotional lags to which we have repeatedly referred.

This part of our volume is dealing primarily with financial mechanisms, and this chapter is considering especially the developments between the two world wars. To this point attention has been given to conditions prior to 1931 with a few references to subsequent developments, particularly to exchange controls. The period was one in which efforts were being made with the aid of "money mechanisms" to protect each national economy from disturbances in the world economy. To the earlier purpose, which was that of control with price movements as the chief guide to policy, there was added a growing concern over the maintenance of national productivity at a high level with a minimum of unemployment. Perhaps this is merely another statement of the same purpose but it is certainly a broader one and expresses a growing social consciousness.

In the field of money and of banking, particularly central banking, "neutralization" seems to be a suitable term for the protective attempts that were made. It seems clear that — somewhat superficially and within limits — these attempts attained success. But, as repeatedly stated, money and banks are merely a mechanism — an important mechanism whose operations affect the fundamental processes of production and exchange. This mechanism, at least in its previous forms and in its method of functioning, faltered in 1931 and some would say it collapsed. The latter characterization seems too extreme but even if accepted there still are questions unanswered.

No matter what the defects of the gold standard, would any other standard — silver, bimetallic, paper — have functioned better? Although the reasons for "neutralization" are understandable and even commendable, is neutralization the best line of effort? Are those who urge a return to at least relatively freer trade by removal of government controls and suppression, if possible, of private international cartels, sufficiently "realistic"? Has the heyday of laissez-faire ended and has the trend within each country toward socialization of one kind or another become so strong that any proposals in the field of world economics must accept this trend as a limiting factor?

These are but a few of the questions that may be raised. They can not all be answered in this volume and perhaps none of them can be. In any event, the next step is to note some of the other

developments prior to the outbreak of the Second World War in 1939.

SELECTED REFERENCES

Brown, Jr., William Adams, *The International Gold Standard Reinterpreted, 1914-1934*. New York: National Bureau of Economic Research, 1940.

The League of Nations: *International Currency Experience: Lessons of the Inter-war Period*. Geneva: 1944.

CHAPTER 33

MONETARY DEVELOPMENTS AFTER 1930

In the preceding chapter we have endeavored to make clear some of the developments immediately following the First World War in the fields of money and of central banking policy. At the outset most countries were "off the gold standard." Expert judgment and public opinion favored balancing of government budgets and a return to the gold standard with currencies stabilized in their relations to each other. Progress along these lines seemed gratifying. One after another the leading countries returned to gold payments: Austria (1922); Germany (1924); Hungary (1924); the United Kingdom (1925); France (1926); Italy (1927); Norway (1928); Portugal (1929). In some cases these are dates of de facto rather than of de jure stabilization. The process was "piecemeal" rather than concerted, and the rate chosen by each country was determined chiefly by its own conception of national advantage, rather than as part of any general plan. Viewed in their relations to each other, some currencies were overvalued and some were undervalued. Also, as has been explained, the gold exchange standard with its consequent "pyramiding" of reserves was widely extended.

As there developed in each country a desire to protect the national economy against external influences and to use the monetary and banking mechanisms to aid in the maintenance and steadiness of the national income, there was a competition within each country for two uses of the monetary reserves. These reserves were needed to support the domestic currency but also to meet external demands which might come at any time and in unpredictable amounts. The efforts to neutralize the effects of these international movements and some of the successes attained have been described. Nevertheless, toward the end of the twenties, in spite of the outward appearance of stability the general situation was precarious. There were accumulations of short-term and demand claims, particularly on a few monetary centers, offset only in part by counterclaims. In

1928 the foreign exchange assets of a number of central banks were:

<i>Central banks of</i>	<i>Foreign exchange assets in old United States dollars</i>
Austria	\$ 102,000,000
Belgium	79,000,000
France	1,287,000,000
Germany	126,000,000
Italy	317,000,000
Sweden	58,000,000
Switzerland	49,000,000

Twenty-four central banks of Europe (not including the Bank of England) had foreign exchange assets amounting to \$6,010,000,000, those of the Bank of France being the largest. There are not included other short-term balances than those of the central banks indicated. The total of short-term balances was estimated to have been at least \$10,000,000,000 at the beginning of 1931, by which time some of them had been lowered.¹ Under the gold exchange standard, there had been an economizing of gold but a concentration of short-term claims on a few centers. In Chapter 27, the amount \$3,077,000,000 is given as the total short-term investments in the United States at the end of 1929 as against \$1,617,000,000 of such claims abroad, a net claim against the United States of \$1,460,000,000, which was by the end of 1933 changed to a net credit of \$600,000,000.

There may be added the estimates by the Department of Commerce of the United States of the international banking accounts of New York banks for certain years (the amounts given include deposits, investments, advances, overdrafts, and so on, and acceptance credits):

	<i>At end of year (in millions of United States dollars)</i>			
	<i>1925</i>	<i>1927</i>	<i>1929</i>	<i>1931</i>
Due from foreigners	\$1,089	1,345	1,776	1,339
Due to foreigners	\$1,281	2,948	3,030	1,465

¹ The amounts of these balances for 1928 are taken from *International Currency Experience*, Geneva, The League of Nations, 1944, pp. 234-35, and for 1931 from a publication of the Bank for International Settlements as quoted in *World Economic Survey, 1931-32*, Geneva, The League of Nations, 1932, p. 204. In the next issue of this publication, it was stated (page 262) that:

“... the total gross international indebtedness of all countries on account of fixed-interest securities, but excluding direct industrial investment, on both short and long term, at the end of 1932, may perhaps be roughly estimated at a nominal value of about gold \$35,000,000,000.”

The leading creditors and their approximate percentages of the total were: the United Kingdom (25); the United States (22); France (10); Switzerland (5); the Netherlands (5); followed by Germany, Canada, Belgium, Japan, Sweden, Czechoslovakia, and Spain.

UNDERLYING ECONOMIC CONDITIONS PRECEDING 1931

If the underlying political and economic conditions had been reasonably stable, there might have been no serious difficulty. Actually the flights of capital and the accumulation of "hot money" were attributable to the political uncertainties, to the lack of general economic equilibrium, and to the dislocations arising out of the First World War and the unsuccessful attempts at their correction. The physical destruction during that war had been largely repaired but the dislocations had not been removed. The burden thrown on the mechanism was too great and it collapsed.

Decline in the Volume of New Investment. World international trade (combined imports and exports) had grown from \$40,000,000,000 in 1913 to \$56,000,000,000 in 1924 and to \$68,000,000,000 in 1929, but the exports from many countries were paid for, not by a corresponding volume of imports, but to a considerable amount by the sale of foreign securities in the exporting countries. This was particularly true of the United States, for which the excess of credits has been pointed out. This absorption of foreign promises to pay continued into 1928, but began to slacken during that year. The result was a growing lack of dollars to support the export market, and when the support was withdrawn exports fell off. Without undertaking an analysis of the causes of the depression,² we may notice what happened to world trade as pictured in Figure 27, which shows its decline by months from January, 1929, through June, 1933. Support in the form of credits had been withdrawn and trade collapsed.

Fall in Prices. Throughout the world prices fell — how much and how differently from one country to another is shown by Table 58. The changes were downward but were far greater for some countries and for some products than for others. This price decline was a deterrent to production in those lines where output could be controlled and added to economic uncertainty.

Movements of Interest Rates and of Gold. The first effect of this developing uncertainty was a rise in interest rates as each country felt the pressure for the withdrawal of funds and tried to maintain liquidity. As the depression developed and some of the pressures were lessened, interest rates declined. In 1928, France had some of the largest outstanding balances, which had accumulated for a

² See *The Course and Phases of the World Economic Depression*, Geneva, The League of Nations, 1931.

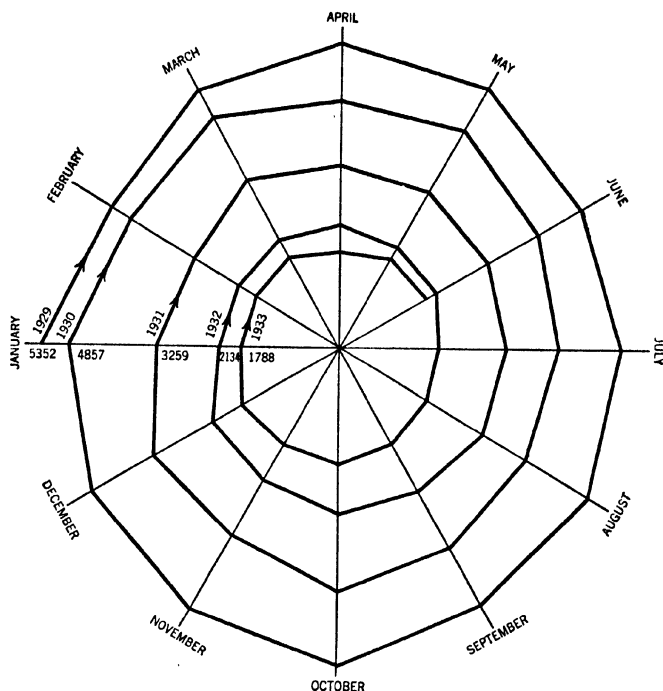


FIGURE 27. The contracting spiral of world trade, month by month, January, 1929, through June, 1933, in millions of United States gold dollars. (From *World Economic Survey, 1932-33*, Geneva, The League of Nations, 1933)

TABLE 58

PERCENTAGE DECLINE IN WHOLESALE AND RETAIL PRICES IN THIRTEEN COUNTRIES FROM THE AVERAGE LEVELS RULING IN 1929 UNTIL MARCH, 1933

Country	Wholesale prices	Retail prices
Belgium	40.8	16.8
Canada	32.6	21.3
Denmark	18.0	9.2
France	37.8	5.9
Germany	33.6	24.2
India	41.1	32.2
Italy	37.0	17.3
Japan	19.3	20.5
Netherlands	49.3	17.9
Sweden	25.0	10.0
Switzerland	36.3	18.0
United Kingdom	28.5	16.5
United States of America	36.8	28.2

SOURCE: *World Economic Survey, 1932-33*, Geneva, The League of Nations, 1933, p. 53.

variety of reasons. One was the export from France of much of the capital which left the country in the flight from the franc before it had been stabilized. Another was the fact that her current balance of exports was active, that is, showed an excess of credits. The Bank of France had acquired these foreign funds by buying foreign exchange but later a general nervousness developed and gold was insisted upon, the reported central gold reserves of France rising from \$710,000,000 at the end of 1923 to \$1,254,000,000 at the end of 1927 and to \$3,022,000,000 at the end of 1928 (all in old United States gold dollars).

General Economic Dislocation. Much has been said in this chapter which bears only indirectly on the subject of money. But money merely performs certain functions, to some extent being passive, although within limits it performs an active role. As the introductory textbooks remind us, it is a medium of exchange, a measure of value, a standard for deferred payments, and a store of value. During the First World War, there had been a considerable destruction of accumulated wealth, but far more extensive and persistent in their effects were the numerous economic dislocations. Physical reconstruction was a huge task but relatively easy compared with the other task of returning to a smooth operation of the processes of production and exchange. A return to the gold standard even in the modified form of the gold exchange standard was not in itself sufficient.

THE COLLAPSE

Some of the signs of the coming collapse have been mentioned — the retardation in the sale of new securities, notably in the United States; the fall in prices; the rise in interest rates; the repatriation of foreign assets, especially by France. The strains became more acute and by 1931 were so severe that the various monetary systems began to give way.

Great Britain Suspends Gold Payments. The speculative movement in the New York security markets had collapsed in the fall of 1929. Two years later, in May, 1931, came the next sharp crisis, this time in Austria. There were political as well as economic influences operating. One was the proposed *Anschluss* or economic union of Germany with Austria, which was vigorously opposed by France, but which probably would not have occurred even if the Permanent Court of International Justice had not ruled against it. It is alleged

that France put financial pressures upon Austria to prevent the formation of the union.

In any event, the economic situation was precarious. The Creditanstalt, a large Vienna bank, had written down its assets to meet the general decline, and although the Austrian Government attempted to save the bank, its doors were closed in May. The Bank of England and the Bank for International Settlements also gave aid, the former with a credit of £5,000,000, but to no avail. The close economic and financial relations between Austria and Germany caused a prompt extension of the crisis to the latter country. The French, who had avoided any large financial involvements in central Europe but had heavy foreign exchange holdings in London, increased their withdrawals from that center, continuing to demand gold. Bankers in Great Britain and the United States who had heavy short-term claims on central Europe began a large-scale withdrawal. The Reichsbank was aided by the Bank for International Settlements, the Bank of England, the Bank of France, and the Federal reserve banks of the United States but the credits thus given were soon exhausted. Bank after bank failed and the demand for liquidity increased everywhere — a demand that meant an attempt to acquire “international currency” in a form that was acceptable and this meant a demand for gold.

How this affected the banks in New York is shown by the following summary of United States international banking accounts showing the large changes in both assets and liabilities (in millions of dollars) as estimated by the United States Department of Commerce:

	<i>At the end of</i>						
	<i>1930</i>	<i>1931</i>	<i>1932</i>	<i>1933</i>	<i>1934</i>	<i>1935</i>	<i>1936</i>
Foreign short-term assets	1,802	1,239	1,053	1,082	1,216	852	759
Foreign short-term liabilities	2,737	1,465	870	487	614	1,219	1,530
Net position	- 935	- 226	+ 183	+ 595	+ 602	- 367	- 771

This shift of funds out of the United States reducing the amounts held there from \$2,737,000,000 at the end of 1930 to \$487,000,000 by the end of 1933, a net decline of \$2,250,000,000, emphasizes the seriousness of the strain and the general desire for liquidity. In Great Britain, the bank rate was advanced by stages from 2½ per cent to 4½ per cent on July 30, but “despite this action, it lost over £30,000,000 in gold in the last fortnight of July.” Early in August, the Bank of England secured a credit of £50,000,000 from

French and American banks and later in the month another £80,000,000, but during the two months ending September 20, over £20,000,000 was withdrawn from the London money market and the export of gold continued.³

On September 21, 1931, legislation was passed by Parliament suspending the Bank of England's obligation to sell gold, the bank rate was raised to 6 per cent, and the stock exchange was closed for two days. We are not concerned for the present with the general aspects of the world crisis with the exception of its effect on money systems and beyond making clear that there were extensive and deep-seated economic causes. It will be noticed that the obligation to pay gold was suspended. There was no declaration that the gold standard was abandoned and no change was made in the gold content of the pound, which remained at 113.00152 grains and at the old "mint par" with the dollar, which was 4.8665.

But the market quotation of the pound in terms of dollars at once declined since gold could not be secured from the Bank of England. Other countries — among them Argentina, Uruguay, Canada, Brazil, Chile, Venezuela, Paraguay, Peru, Australia, and New Zealand — had previously suspended gold payments in different ways and to varying degrees. By the end of October, 1931, the countries "off gold" included "all the British Dominions except South Africa, the rest of the British Empire, and the three Scandinavian countries, as well as Portugal, Egypt, Bolivia, Latvia and Finland. . . . Japan followed in December, 1931, Greece in April and Siam and Peru in May 1932."⁴

"*Devaluation*" in the United States. The desire for liquidity expressed itself in the United States not by an internal demand for gold but by heavy withdrawal of "money" from the banks. "Bank holidays" occurred in one state after another, and on March 6, 1933, two days after his inauguration, President Franklin D. Roosevelt decreed a national banking holiday, prohibited all foreign banking operations, and imposed an embargo on gold and silver exportation. Within two weeks there was a general reopening of banks, much of the rather moderate amounts of gold that had been hoarded was returned to the banks, and foreign exchange dealings were resumed. After a number of months of uncertainty, the Congress, in January, 1934, authorized the President to "devalue" the dollar,

³ *World Economic Survey, 1931-32*, Geneva, The League of Nations, 1932, p. 77.

⁴ *Ibid.*, p. 79.

or, in other words, to reduce its pure gold content by as much as 50 per cent, or to 11.61 grains. He set its content at 13.71+ grains and Congress years later withdrew his authority to make any further reduction. The Secretary of the Treasury, however, still has the power with the approval of the President to buy and sell gold at such price as he may think wise, and both critics and supporters point out that this authority is much more sweeping than that which had for a time been granted to the President. At no time could the President go further than to reduce the gold content of the dollar by 50 per cent or, put differently, to raise the "price" of gold to \$41.34 an ounce, and he exercised his power only to the extent of raising the "price" to \$35 an ounce. The Secretary of the Treasury may raise or lower the "price" at his discretion, with the approval of the President.

It is said that by these actions the United States "went off gold." Instead of agreeing or disagreeing categorically with this assertion, we may point out that: (1) gold is not being coined at the United States mints; (2) holders of other forms of money may not secure gold merely by demanding it; and (3) that legal tender qualities of gold are of no current significance since debtors can not legally acquire gold with which to pay debtors and must perforce use other legal tender money. On the other hand, there has been no formal legislation (other than such laws as have been mentioned) indicating that gold has been abandoned as a standard; the Treasury buys gold as offered at a "price" of \$35 per ounce and also sells gold for export; against most of its large holdings of gold the Treasury has issued gold certificates which, though not redeemable, constituted about 40 per cent of the assets of the Federal reserve banks on August 28, 1946.

The Pound and the Dollar. "Devaluing" the dollar (lowering its gold content) did not of itself extensively affect the purchasing power of the dollar over commodities within the United States, such changes as occurred being due more to other causes. But the relationship of the dollar to other currencies was sharply altered. After the British suspended gold payments in September, 1931, the pound fell in terms of the dollar from \$4.8665 to as low as \$3.14 in 1932. After the action of the United States in 1933, the rate went at one time to \$5.52 and finally settled at or close to the older level of \$4.8665. The decline of the pound had given the British an export advantage which was lost when the United States

"devalued," bringing the two countries back to their former competitive relationship.

The action of the United States in "devaluing" was sharply criticized. It was argued that the country was under no strain comparable to that felt by Great Britain in 1931, and that the "flight of gold" from the country not only had been moderate in amount but was actually attributable to the anticipation of the "devaluation." The writer shares the views of these critics and believes that the only reason that may be urged for the action is that it restored trade relations, so far as the factor of foreign exchange was concerned, to that which had prevailed prior to September, 1931. Whether this was advisable, however, is not so clear. The action of the United States added to the general monetary confusion at a time when stability was important. Moreover, the external depreciation of the dollar encouraged exports and discouraged imports at a time when all trade needed a stimulus and when the United States could have aided by admitting imports more freely. On the other hand, all or most of the arguments that may be advanced in favor of protective tariffs may be urged in support of the action taken.

CURRENCY AREAS

This was a very different monetary situation than that which had prevailed twenty years earlier. In that previous period the leading countries of the world were on the gold standard in one or another sense, and to a considerable extent "the rules of the game" were being observed. Moreover, the "international gold standard," as it was called, had much of its smoothness of operation because of the dominance of London in the financial centers of the world. To a very considerable degree the pound sterling was a world currency that was acceptable over a wide range. After 1918 there were radically different conditions. London was less of a world financial center, at least relatively, while New York had become more influential.

Sterling Area. Out of the confusion attending the suspension of gold payments there emerged a new pattern. Countries were gradually grouped into currency areas in accordance with their trade and financial relationships. One was known as the sterling area, another the dollar area, and a third group — the gold bloc — persisted for a time. Other areas which have been given names are

the exchange control area of central and southeastern Europe and the yen area. The countries in a given currency area were not necessarily contiguous.

The sterling area had no rigidly defined boundaries but included a number of countries which kept their currencies in a fixed relationship with the pound and also "tended to keep their exchange reserves largely if not wholly in the form of sterling balances and other liquid assets in London."⁵ This relationship with London was in substance the same as that of many countries to London in the earlier period. The countries in the group were the British Commonwealth of Nations (with the exception of Canada), Portugal, and others which joined later — the Scandinavian countries in 1933, Iran and Latvia in 1936. Although Argentina and Japan were not so closely allied as others, they kept their exchange rates fixed in sterling for some years. This grouping, of course, was prior to the outbreak of the Second World War in September, 1939.

A leading consideration was the extent to which the economic affairs, particularly the trade, of a given country were related to those of Great Britain. British imports are large. A decline of the pound in terms of, say, the Argentine peso, would tend to retard exports from Argentina to Great Britain — a result that would be offset if the peso were depreciated to the same extent as the pound and the former relationship between the two currencies were restored. In the midst of a world-wide depression with declining trade, the depreciation of the pound was disturbing. Accordingly, a number of countries depreciated to the old relationship with the pound, while others depreciated more or less but tied their currencies to the pound at some new level.

Other Currency Areas. For the same reasons that led a number of countries to accept the leadership of Great Britain and join the sterling area, others, particularly in Central and South America, tied their currencies to the dollar, and still others, more or perhaps less willingly, to the German mark. Further reference should be made to the group known as the "gold bloc." Like the others, this group can not be rigidly defined. At the London Economic Conference in June, 1933, there were fifteen countries which supported the general policies involved, but this included Germany and a number whose interests were closely tied to hers. The more continuing members of the group were France, Italy, Switzerland, Bel-

⁵ *International Currency Experience*, Geneva, The League of Nations, 1944, p. 47.

gium, and the Netherlands, whose central banks held large amounts of gold. The amounts reported at the end of 1923, 1928, and 1933 are given in Table 59.

TABLE 59

GOLD HOLDINGS IN FIVE CENTRAL BANKS AT THE
END OF 1923, 1928, AND 1933

(In millions of old United States dollars)

<i>Central banks of</i>	<i>End of 1923</i>	<i>End of 1928</i>	<i>End of 1933</i>
Belgium	52	126	380
France	710	1,254	3,022
Italy	218	266	373
Netherlands	235	175	372
Switzerland	104	103	387

That these countries should be reluctant to "go off gold" is not surprising in the light of their large and growing gold stocks and also of the experience of some of them with inflation a few years earlier. They faced the alternatives that other countries faced at the time. One was to suspend gold payments or to "devalue" or both, with the possibility that control of prices would be lost and inflation follow. The other was to adhere to gold, which under the prevailing conditions meant deflation — a lowering of prices and costs. Of the two alternatives they chose the latter.

Their position was the more acute because most other countries had chosen the former alternative. As the pound, the dollar, and other leading currencies declined in terms of gold, prices in gold francs, lire, and guilders had to be reduced to meet the competition. A lowering of prices forced attempts to reduce costs including wages and this was resisted by wage-earners. If other countries had remained "on gold," the gold bloc might have succeeded, but since the others had not, the gold bloc gradually collapsed. In 1935, Belgium devalued and soon the others followed.

The German Mark. In the fall of 1923 the old German mark was stabilized with the dollar at the rate of 4,200,000,000,000 marks to the dollar. In 1924, Germany returned to the gold standard with the reichsmark as the unit, its gold content being the same as that of the old mark. In United States money the reichsmark was the equivalent of 23.83 cents and its relationship to the British pound was 20.43 marks per pound. When Great Britain and the United States depreciated their currencies the relationship was of course

changed. In the case of the United States, which merely "devalued," the mark was quoted at approximately 40 cents.

Reference has been made earlier to clearing and compensation agreements and to exchange controls. Although in 1933 Germany seemed to be one of the "gold bloc," her position was altered the next year and she became a sort of financial center for a group of countries related to her by a new device — a special type of blocked currency. This position was utilized for both political and economic purposes and was a powerful weapon.

German importers of foreign goods who had secured the necessary permission for their purchases, deposited their payments in a German bank in reichsmarks to the credit of the foreign seller. These funds, which under the procedures of the past would have been "free" foreign exchange to be bought and sold anywhere and for any purpose, could be used only for the purchase of German goods for export, the German exporter being paid out of the account. These marks were known as "Askimarks" (an abbreviation from *Ausländer Sonderkonten für Inlandzahlungen*). If foreigners who owned these Askimarks were dissatisfied with the prices (or quality) of German goods available to them, they could and did sell the Askimarks at a discount, since it proved impracticable for the German authorities to prevent transactions in them outside Germany.

It will at once be noticed that this was really a depreciation of the German mark although the appearance of stability was retained. The nominal quotation for the mark continued at 40 cents but the discounts described showed the real as distinct from the superficial status of German currency. To this there were added certain special kinds of blocked marks, which were available at lower than nominal prices. There were a considerable number of these, four of which are listed with their respective discounts below gold parity, the percentages given being the percentages of gold parity shown by the average quotations in December, 1938: ⁶

	<i>Per cent of gold parity</i>
Registermark	44.1
Reisemark	58.9
Kreditsperrmark	12.3
Effectensperrmark	11.4

Quotations for these and other special kinds of blocked marks varied from time to time and clearly show that, like many other

⁶ *Statistical Year-Book of the League of Nations, 1938-39*, Geneva, 1939, p. 225.

national currencies, the mark was depreciated from its nominal gold par.

A word may be added about the way in which these special marks were used. The Germans bought the goods they desired abroad, for example, in the Balkans and in South America, at prices at or above the world market prices in the currencies of the exporting countries. Payment was made in blocked marks, which the exporters perhaps sold at a discount, meaning that they actually realized less on their sales than appeared in the prices received for the commodities. But if they retained the blocked marks, using them for purchases in Germany, they had to buy such German commodities as were available and at prices set by the Germans. Moreover, in some cases the Germans bought more products such as cotton and coffee than were needed within that country and then resold them on the world market, thus securing "free" foreign exchange, such as pounds and dollars, with which they could then purchase desired raw material imports.⁷

COMPETITIVE DEPRECIATION

Repeatedly we have noticed that the external depreciation of a national currency tends to restrict imports but to stimulate exports. In the years following 1929, business men faced a general decline in demand and were increasingly eager to sell abroad. Coupled with the commonly held view that exports are "good" and that imports are "bad," depreciation met with little opposition within the countries that adopted it. Its success in stimulating exports was, however, to a degree dependent on other countries refraining from the practice. The effects of depreciation, like the effects of other economic actions, are numerous and ramify in many directions. One influence of depreciation is to encourage exports and this in turn may lead to a more complete use of productive factors in the country that depreciates. However, there is no fixed total of foreign trade and it is not correct to consider that what one country gains other countries must lose. The depreciation of a given currency, for example, the pound, gave to a particular British exporter a price advantage over an American competitor. This might be followed (as it seems to have been) by a depreciation of the United States dollar in an effort to offset the disadvantages caused by the British action.

⁷ *World Economic Survey, 1935-36, op. cit.*, pp. 199-200.

The period beginning in 1931 was one of increasing restrictions on trade, especially on imports, of clearing and compensation agreements, and of exchange controls. To these devices was added currency depreciation. What was an advantage to one country became less of an advantage to any of them to the extent that it was generally employed.

Exchange Dumping. In Chapter 23, there was a discussion of dumping. It was pointed out that the term is used in a variety of ways and at times very loosely. There were two meanings emphasized, each with a certain precision. One is the sale of goods at less than cost, a meaning difficult to apply because costs are not easy of calculation. The other meaning, which is more usable, is the sale of goods in one market at lower prices than in others. In practice, this usually means sales at a lower price in a foreign market than in the domestic market. Exchange dumping was referred to, but its consideration was postponed.

Exchange dumping is often said not to be true dumping. It does not conform to either of the definitions we have used, since it is not a sale at prices lower than the costs of a producer nor at a price that is lower to the foreign purchaser than to the domestic purchaser. Because the currency of the seller's country has been depreciated externally, the price is one that sellers whose countries have not taken similar action find it difficult to meet and they are placed at an acute disadvantage. Also, we should note that ordinary dumping applies to particular goods of which the prices for export have been lowered; such action may be met, at least to a degree, by anti-dumping laws. Exchange dumping affects all foreign dealings of the country concerned. All exports are stimulated at least so long as the currency is depreciating externally and until it is depreciated internally to a corresponding extent. In a similarly sweeping manner it restricts all imports. Whereas ordinary import duties apply to specifically designated commodities, and the rates for some may be moderate, currency depreciation affects all imports, whether dutiable or not, and to a degree that is determined by the extent to which the currency has fallen below its former relationship with other currencies.

EXCHANGE STABILIZATION FUNDS

Still another device was used by a number of countries, beginning with Great Britain in 1932. In September, 1931, the Parliament

authorized the Bank of England to discontinue gold payments but without any formal "devaluation" of the pound, which still is the same weight of gold as formerly. With the United States dollar containing 13.71 grains of pure gold, the mint par for the two is \$8.2397. But suspension of gold payments meant an immediate external depreciation of the pound, and in the absence of any decision regarding a new level for it, market exchange quotations for a time fluctuated widely. In order to steady the market, the Bank of England bought and sold foreign currencies and gold, but the task was a large one and involved considerable risks of loss.

The British Exchange Equalization Account. In April, 1932, the British Parliament authorized the Exchange Equalization Account which began its operation in June of that year, its funds being limited at first to £175,000,000. After the United States suspended gold payments in 1933, an additional £200,000,000 was voted. It was managed for the Treasury by the Bank of England. Its operations were secret but its general purposes and its techniques are generally known. Substantially all of the gold of the Bank of England was turned over to the account, thus placing the monetary gold of the country under its control. The general purpose of this account and of the similar funds soon established in a number of other countries was indicated by its title — stabilization of the pound in terms of other national currencies. But "stabilization" may mean many things. A limited interpretation would confine it to steadying short time, for example, to day-to-day fluctuations. This might be extended to seasonal movements and a more extreme interpretation would permit its use to influence general trends.

There are other difficulties. Presumably such an account would be used to steady the (national) currency at a level neither "too high" nor "too low" but at "normal" or "equilibrium." But what is this level? We have accepted without question the common view that the pound was overvalued in 1925 and the French franc undervalued in 1926. But to determine a normal value in a period in which there were such great changes in the value of international trade, such fluctuations of international lending, such large flights of capital, so much "hot money," and so great and diverse changes in prices, was far from easy.

This brief statement about the operation of the Exchange Equalization Account must suffice. With many variations it may be

applied to the similar funds of other countries.⁸ It will be recalled that the interwar period was characterized by an attempt to use financial mechanisms to aid the national economies more than previously. An exchange stabilization fund has assets for use in performing its functions and these assets are (a) domestic and (b) foreign. They are in the form of securities (government short-term obligations), deposits in domestic banks, and gold and deposits abroad (foreign exchange). By a judicious use of these funds, it may be possible to stabilize the foreign exchanges and also, along with the central bank, to exercise some control over the volume of domestic credit available to business.

The American Exchange Stabilization Fund. When in 1933 gold payments were suspended in the United States and the dollar subsequently "devalued" by reducing its gold content some 40 per cent, the physical volume of gold was not altered but the expression of its amount in dollars was increased. There were "more dollars" than before. This "profit" presumably should not accrue to private interests and accordingly the assets of the Treasury of the United States were enlarged by this amount, which was \$2,800,000,000. Of this total "profit," there was allocated \$2,000,000,000 to the Exchange Stabilization Fund and much of the balance was later used to retire national bank notes.

There has never been a clear official statement of the reasons for "devaluing" the dollar or for setting up the fund. The act of Congress creating the fund stated that it was "for the purpose of stabilizing the exchange value of the dollar," but the dollar, which had been \$3.14 in relation to the pound in 1932, was in 1934 back to about \$4.86. The fund was not used to "stabilize" the dollar at its level during the preceding two years but at the level prevailing prior to September, 1931. The most plausible explanation for "devaluation" of the dollar would seem to be that it was desired to restore the old position of the United States dollar in order to remove the competitive advantage in export trade that had accrued to other countries whose currencies had depreciated, notably Great Britain.

Other Stabilization Funds. A number of other countries soon set up stabilization funds: Belgium, Argentina, and Canada (1935); Switzerland, France, the Netherlands, Latvia, Czechoslovakia, and Rumania (1936); Colombia and Japan (1937); and China (1939). A glance at the list shows the varying financial importance of the

⁸ *International Currency Experience, op. cit.*, chap. VI.

countries named. Their assets differed in their amount and in their composition, leading funds starting with gold as in the case of the United States or with Treasury bills as in the case of Great Britain.

Stabilization funds may be thought of as serving two purposes. Like the blocked accounts, quotas, clearing agreements, and other devices so extensively introduced in the 1930s, they were to some extent merely a method of meeting an emergency situation. They may, however, be continued as a part of the effort of each or at least some countries to insulate or protect themselves against external disturbances. By acquiring gold and other assets and by purchases and sales of their own and foreign currencies, they can presumably prevent many short-time exchange fluctuations. Their influence over long-term trends is more limited. If there is a large and persistent disequilibrium in the balance of international payments, a stabilization fund may be able to do no more than steady the fall (or rise) of its national currency.

TRIPARTITE AGREEMENT

As conditions worsened some co-operation between the leading countries seemed desirable. The position of the gold bloc as just described became more and more difficult. No matter what were the merits of the gold standard in a world in which the leading commercial countries adhered to it and followed the "rules of the game," it was not tenable for a small group of countries when most of the others had in one way or another depreciated their currencies. Given a sufficiently long period of time, costs and prices within the gold bloc might have adjusted themselves downward and a new international equilibrium been established. But the requisites of such an adjustment were lacking, and the pressures on the gold bloc were so heavy they could not be withstood.

In 1935, Belgium devalued its currency. The Italian lira had been weak and, in 1936, France, Italy, the Netherlands, and Switzerland all formally depreciated their currencies, the net result being that the leading currencies of the world stood in much the same relationship to each other as they had only a few years earlier. This relationship, however, was by no means stable and an attempt to assure at least a measure of stability was made through the Tripartite Agreement between the British, the French, and the United States governments which was made public on September 25, 1936. This was an announcement of the intent of the three governments

to co-operate closely in international economic matters. Within a few days the Netherlands, Switzerland, Italy, Latvia, Czechoslovakia, Turkey, Greece, the Soviet Union, and Rumania all took action by adjusting their currencies. Belgium, the Netherlands, and Switzerland became parties to the agreement.

Devaluation of the French franc was carried out in close understanding with the British and the United States governments, which issued simultaneous statements declaring in the case of each "its intention to continue to use appropriate available resources so as to avoid as far as possible any disturbance of the basis of international exchange resulting from the proposed readjustments."⁹

NATIONAL CURRENCIES AND THE SECOND WORLD WAR

Upon the outbreak of the Second World War in September, 1939, the foreign exchanges fluctuated widely for a time and then most of the leading ones were "pegged" as they had been twenty-five years earlier, though in different relationships to each other. Currencies of enemy countries and of occupied countries were not quoted in the financial markets of the Allies where foreign exchange operations were still carried on. With numerous exchange controls including "pegging," with blocked accounts, and with restrictions on trade and shipping, the rates were set, not arbitrarily, but at levels that seemed appropriate to each national interest or to the common cause. What would have been "normal" rates of exchange, no one can say, since ordinary business relationships were non-existent or were under rigid controls. As the occupied countries were liberated rates were set, for example, between the pound and the dollar on the one hand and the French franc and the Italian lira on the other. These rates were merely an expression of the best judgment of the responsible officials who were compelled to make the decisions.

In the meantime, the currency systems operated independently of each other to a greater or less degree. Private trade was small. Purchase and sale of securities was largely through government agencies. Prices within each country moved without the former close relationship to prices in other countries. When hostilities

⁹ For an account of these events and of the steps taken by other countries, see among others, Bank for International Settlements (Basle, Switzerland), *Seventh Annual Report*, May, 1937, pp. 18 ff., including Annex VII which contains the statements of the three governments.

ceased the world was again confronted with a vast number of dislocations that can be corrected only through years of time. If the description of financial mechanisms in this chapter is combined with those of earlier chapters on trade and capital movements, we may be inclined to agree with the following statement:¹⁰

In 1918 statesmen looked back forlornly and hoped more than they strove to restore the economy of 1913. No one could desire to revive the international economic system of 1939, for there was none — only the ruins of a system.

SELECTED REFERENCES

Bloomfield, Arthur I.: "Operations of the American Exchange Stabilization Fund," *The Review of Economic Statistics*, May, 1944, pp. 69-87.

Bureau of Foreign and Domestic Commerce: *The United States in the World Economy*, Economic Series No. 23. Washington: 1943.

Hall, Noel Frederick: *The Exchange Equalization Account*. London: Macmillan & Company, Ltd., 1935.

Hansen, Alvin Harley: *Economic Stabilization in an Unbalanced World*. New York: Harcourt, Brace & Company, 1932.

The League of Nations: *The Course and Phases of the World Economic Depression*. Geneva: 1931.

—————: *World Economic Survey*. Geneva: published annually.

¹⁰ *The Transition from War to Peace Economy*, Report by the Delegation on Economic Depressions, Geneva, The League of Nations, 1943, pp. 13-14.

CHAPTER 34

GOLD AND THE GOLD STANDARD

Few other economic topics have so stirred public interest for many years as has the position of gold in monetary systems. Certainly this has been true in the United States, where only a half century ago presidential campaigns were fought over the respective merits of the gold standard and bimetallism. In the last quarter of the nineteenth century, prices were declining and the economic groups that suffered declared that the price fall was the result of the abandonment of bimetallism and demanded its restoration.

Some of the contentions that arose during this controversy are no longer advanced but there has been a growing conviction that money is not a merely passive instrument. It is not adequately described by the statement that it is a medium of exchange, a measure of value, a standard of deferred payments, and a store of value, unless there is added the statement that in performing these traditional functions money may itself be an active influence. We may contend that what we desire is production, exchange, and distribution with money merely as an aid but it is argued that money may itself affect these basic processes. The choice of a proper kind of money and the way in which it is used may influence the volume of production and the way in which this production is distributed.

THE ASCENDANCY OF GOLD

By the end of the nineteenth century, the gold standard had been widely though not universally adopted. The "battle of the standards" had been fought and gold had won. The Latin Monetary Union had become largely a paper agreement between countries which were to a considerable extent operating on a gold basis. The demand for free silver (which was a demand for bimetallism) had been made in the United States but was denied in the presidential elections of 1896 and of 1900 and in the latter year the Gold Standard Act was passed by Congress. This placed the United States more

definitely on the gold standard even though it was a "limping" standard. Relations between gold standard countries and silver standard countries were steadied by the extension of the gold exchange standard, which meant in effect that the latter were at least partially on gold. When monetary systems collapsed, their reconstruction was along lines that brought them closer to gold. After the First World War every effort was made to "go back to gold" and a streamlined gold exchange standard was extensively adopted.

Yet money systems collapsed one after the other. Gold payments were suspended. Monetary units were "devalued." In 1936, a distinguished Swedish economist¹ wrote a volume entitled *The Downfall of the Gold Standard*, which he closed with a chapter on "The Illusion of a Return to Gold." The chapter opened with these words:

Our investigation has shown how thoroughly the whole gold-standard system has been destroyed and how unpromising are the prospects of any future revival of that system. Gold has failed, both as a means of payment and as a standard of value.

This judgment has not been universally accepted. There are many who argue that no monetary system could have withstood the strains of the period between the two world wars, and that in spite of admitted defects, the gold standard is better than any other both for domestic and for international uses.

Why Gold? In a world of rapid change it is to be expected that systems of all sorts will be altered and that the arguments for or against them will be modified. Over sixty years ago the arguments for gold were effectively presented by a British economist, W. Stanley Jevons.² He was writing at a time when gold was still being used extensively as a circulating medium and he stressed the qualities of gold which seemed to make it superior to any other commodity for monetary use. In order of importance, these qualities were:³

1. Utility and value.
2. Portability.
3. Indestructibility.
4. Homogeneity.
5. Divisibility.
6. Stability of value.
7. Cognizability.

¹ Cassel, Gustav, *The Downfall of the Gold Standard*, London, Oxford University Press, 1936.

² *Money and the Mechanism of Exchange*, New York, 1883.

³ *Ibid.*, p. 31.

Some of these same qualities were possessed by silver but it was less portable (having less value per unit of weight) and had less stability of value (there being so large a world output that its purchasing power over other commodities had declined).

There is no reason why we should here debate the merits of bimetallism. Gold won out in the battle and the issue now is the extent to which, if at all, gold should be restored to its monetary position of a few decades ago. Our survey will be limited primarily to the developments since the end of the First World War. In the next and final part of this volume, some of the current controversies will be considered.

Is Anything Wrong with Gold? It will be observed that five of the seven qualities of gold as listed are physical qualities. These five are of very considerable importance to the extent that gold is used as a circulating medium. The nonphysical qualities are: (1) utility and value, and (6) stability of value. Since public preference is against actually carrying a considerable weight of metal and in favor of the more convenient paper money, the physical qualities are today less important. Of the nonphysical qualities, "stability of value" is the one to which special attention should be given since there is no denial of the assertion that gold as a metal has "utility and value."

Does gold have stability of value, or at least sufficient stability of value for monetary uses? Value is purchasing power and fluctuations in purchasing power place heavy strains on any economy. As the value of money rises, prices fall. As the value of money falls, prices rise. But the price changes do not synchronize. Price flexibility varies from one item to another. The prices of most raw materials are quite sensitive but wages and interest rates are less so. Some prices, such as interest rates on long-term bonds or mortgages, are set by contract and may be altered only when the contract matures. Because the demand for some commodities is quite inelastic, their prices rise (or fall) more readily with changes in supply than do the prices of commodities the demand for which is more elastic. Thus prices change unevenly and either a rise or a fall affects the distribution of the national income and may aid some individuals and groups while injuring others.

Is the Value of Gold Stable? If all prices expressed in terms of gold rise, there is a decline in the value of gold but the values of everything else may be entirely unaltered (except in relation to gold).

The converse is true if prices in gold fall. There seems to be no escaping the conclusion that fluctuations in the general price level are, ipso facto, evidence of a fluctuation in the value of money.

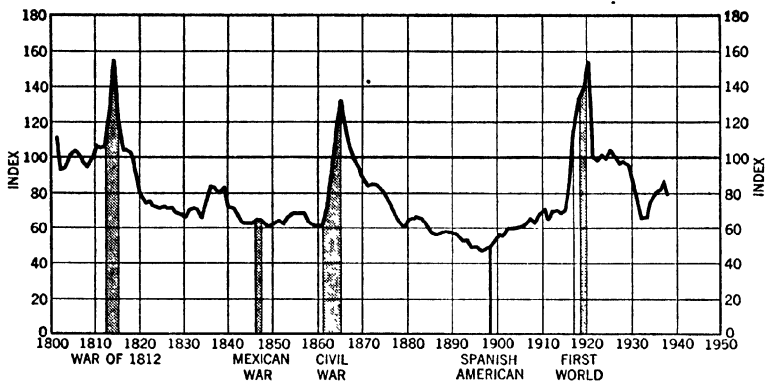


FIGURE 28. Wholesale price changes in the United States since 1800. (From the United States Bureau of Labor Statistics.) The great price advances since the beginning of the nineteenth century have come in time of war—in the War of 1812, the Civil War, and the First World War. Each rapid price advance has been followed by a long decline, not infrequently to lower levels than prevailed before the outbreak of war.

But such fluctuations are not necessarily the result of forces related to money but may be the result of influences on the commodity side of the price ratio. Thus, day-to-day changes in stock market quotations or in the prices of many commodities are more plausibly explained by changes in the supply of and the demand for what is being bought and sold. The same may be said of those longer price swings through a business cycle. Secular price changes are a different matter and many students have concluded that they are to be explained better through fluctuations in the supply of money and particularly in the supply of gold as related to the monetary demand for it. Thus prices in terms of gold rose after the discovery of large deposits of gold about the middle of the nineteenth century but declined some years later after the output of the new mines leveled off and the expansion of business increased the demand for it. When new deposits were located and new methods of extracting gold from low-grade ores (the chlorine, cyanide, and gold flotation processes) were discovered, gold production increased and prices again advanced. Over extended periods of time there were

price changes that were attributed to changes in the value of gold. Wholesale price changes in the United States since 1800 are shown in Figure 28.

Gold and Money. Before examining further the changes in the supply of and the demand for gold, it should be noted that the ideas just summarized are based upon the assumption of a close relationship between gold and money. There are two concepts that should be kept clear. One is "money," which has been defined as anything generally acceptable as a means of payment. In many countries, gold has for a long time been used very little as a circulating medium. The other concept is that of gold as a base or standard in a monetary system. There at once arises a question about the extent to which even in a gold standard country there is a close relationship between gold and prices. If gold and gold only were used as currency, such a relationship seems clear. As gold becomes a monetary standard or base and is not itself used as the medium of exchange, the connection is more tenuous and, to the extent that currency is "managed," the connection is still more debatable.⁴ Nevertheless, the ordinary view has been that there is a relationship between gold and prices — that prices tend strongly to fluctuate directly with the amount of gold produced.

THE GOLD DELEGATION OF THE LEAGUE OF NATIONS

In 1929, a special Delegation of the Financial Committee of the League of Nations was appointed "to examine into and report upon the causes of fluctuations in the purchasing power of gold and their effect on the economic life of the nations." This was before the start of the world-wide depression of the thirties, and the inquiry made with subsequent recommendations had little to say except in passing about the great shift in the world distribution of gold (which will be mentioned a little later). The committee concerned itself with the past and probable future production of gold and with the prospective monetary demand for it.

The Supply of Gold. As already pointed out, the production of gold has changed from time to time but the trend has been an upward one. Going no farther back than 1900, the world production has been:⁵

⁴ See the *MacMillan Report (Committee on Finance and Industry Report)*, London, 1931, H.M.S.O., Cmd. 3897, par. 45, and Heilperin, Michel A., *International Monetary Economics*, New York, Longmans, Green & Company, 1939, particularly chap. II.

⁵ Compiled from the *Annual Report* of the Director of the Mint of the United States, 1943, p. 99.

<i>Period</i>	<i>Annual average</i>
1901-1905	\$323,000,000
1906-1910	434,000,000
1911-1915	460,000,000
1916-1920	392,000,000
1921-1925	361,000,000
1926-1930	402,000,000

On the basis of past production and by extending the curves of this past output, conclusions were reached as to the probable future production. One estimate for the eleven-year average from 1930 to 1940, inclusive, was \$372,000,000 and another was \$394,000,000. It will be understood that these were merely estimates based on certain assumptions and were not "prophecies."

The Demand for Monetary Gold. These were estimates of production but "supply" has significance only as related to demand. Consequently, an attempt has been made to estimate the monetary demand, or perhaps we should say the need. It will be recalled that "need" is a somewhat meaningless term unless it is related to some result. It was assumed desirable to have an output of gold sufficient for bank reserves adequate to support their operations without a decline in prices. The issue was most strikingly analyzed by Professor Gustav Cassel,⁶ who concluded that "the stability of the present price level will depend on the possibility of the annual gold production's amounting to 3 per cent of the world's total stock of gold," but that subsequent to 1917 "the ratio has been considerably below 3 per cent."

This analysis suggested that unless there was in some way a stimulus to gold output or some modification of the monetary demand for it, there would be a decline in prices. What actually occurred could presumably not have been foreseen. However, before presenting the data, it is well to make clear the way in which gains from the mining of gold depend on one fact not found in other lines of production.

It has been pointed out that the "price" of gold is expressed ordinarily in terms of gold itself and that a price in the United States of \$20.671 is nothing more than a statement of the number of dollars into which an ounce of pure gold (480 grains) can be coined if 23.22 grains are used for each dollar. Thus, the price per ounce at which gold may be sold is fixed. Gains (or losses) from gold-mining are therefore dependent on volume of output and on costs and can

⁶ *The Supply of Gold*, Interim Report of the Gold Delegation of the Financial Committee, Geneva, The League of Nations, 1930, Annex X.

not be affected by a rise or fall in selling price per unit. If costs of labor, materials, and so forth advance, gains from gold-mining are reduced, while if costs decline, the gain increases. (This has been considered by some as a kind of automatic check on secular price trends. If the price level rises, gold production is discouraged and will decline and vice versa.)

There followed the conclusion that a period of deflation could best be avoided by economizing in the use of gold. The gold exchange standard has been described in Chapter 32 as a device by which that could be accomplished. Another method was "devaluation." By reducing the weight of gold in each dollar (or franc, guilder, and so forth) the number of dollars, and so forth is increased. At once the owner, a central bank or government treasury, has more units of money than before.

The effect of devaluation is to stimulate gold production. In the United States, the price of pure gold per ounce rose from \$20.671 to \$35. In Great Britain, the price of gold (eleven-twelfths pure) rose from 77*s.* 6*d.* to 168*s.* (although there was no formal "devaluation" in that country). Comparable advances occurred elsewhere. Owners of gold mines experienced a great advance in the selling price of gold per unit. This might have been quickly "pinched out" by a rise in their costs. That prices of commodities and services would advance sharply was feared by many but it did not occur. Costs of labor and materials increased but slightly, and the spread between costs and selling prices was greatly enlarged.

How much gold production was increased is shown by giving world output in fine (pure) ounces for the years indicated:⁷

<i>Period</i>	<i>Production (fine ounces)</i>
1901-1905 (annual average)	15,606,730
1920	16,146,830
1925	18,673,178
1929	19,207,452
1930'	20,903,736
1935	29,999,245
1940	41,067,101
1941	40,332,204

Expressed in new United States dollars, the production for indicated years was:

⁷ Production in fine ounces and in United States dollars has been taken from the *Annual Report of the Director of the Mint of the United States*, 1943, p. 99. Later figures are not published because of incomplete data.

Period	Production
1929	\$ 672,000,000
1930	732,000,000
1935	1,050,000,000
1940	1,437,000,000
1941	1,412,000,000

How this affected mining operations is shown by Figures 29 and 30. Figure 29 indicates for the gold mines of Witwaters in the Rand,

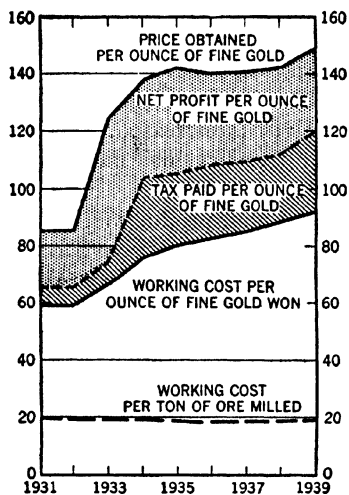


FIGURE 29. Production of a South African gold mine; working revenue, costs, and profit in shillings per ounce of fine gold won or per ton of ore milled. (From the *Tenth Annual Report of the Bank for International Settlements*, Basle, Switzerland)

Transvaal Province, (1) that the working cost per ton of ore milled remained substantially unchanged at about 20 shillings per ounce; (2) that the working cost per ounce of fine gold was advanced materially, presumably because there was a shift to poorer ores; and (3) that taxes per ounce rose sharply. Nevertheless, the rise in the price obtained per ounce of fine gold was so great that the net profit per ounce was much larger than before.

Figure 30 is in three parts. The first indicates the changes in the British price of gold from the old 77s. 6d. taken as 100. There was a rise during the First World War followed by a return to the old level in 1925 and then a much greater rise subsequent to the suspension of gold payments in 1931. The advance in the dollar price (from \$20.671 to \$35) in 1934 also is shown in percentages. The second and third parts of Figure 30 show how gold production was stimulated, one expressing it in millions of ounces and the other in dollars.

Nevertheless, the rise in the price obtained per ounce of fine gold was so great that the net profit per ounce was much larger than before.

WORLD DISTRIBUTION OF GOLD

The record shows a return to the gold standard after the First World War, the breakdown of the "gold exchange standard" device, and a general suspension of gold payments and numerous "devaluations." It also shows that the difficulty of a shortage of gold that might have precipitated a decline in prices as feared by Professor

Gustav Cassel and other authorities was prevented by a huge advance in the output of gold. This might have vastly increased gold reserves all over the world had the gold been widely distributed.

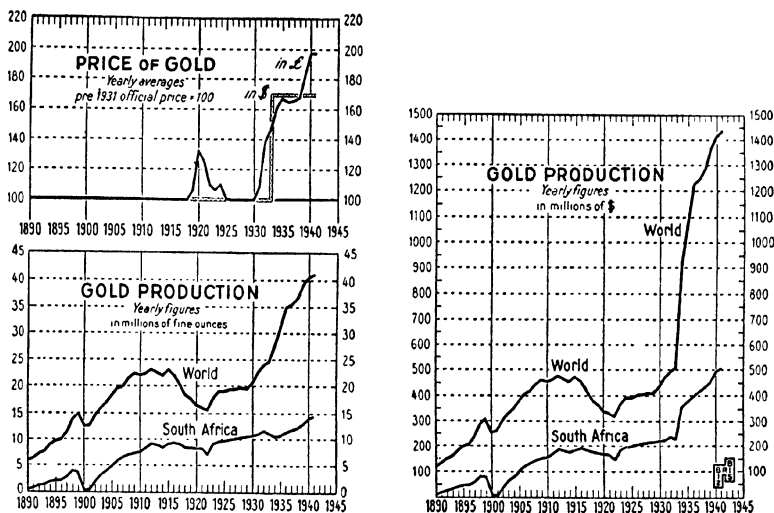


FIGURE 30. Gold production and the price of gold 1890-1945. (From the *Twelfth Annual Report of the Bank for International Settlements, Basle, Switzerland*)

If the banks had expanded their operations on this enlarged gold base, there might have been a rise in prices rather than a decline. Whether this would have occurred had there been no depression, no large flights of capital, and no efforts to "neutralize" these movements, we cannot be entirely sure. But these other influences were present and prices did not rise prior to 1939 to correspond with the increase of monetary gold. After 1939 they rose in many countries, for the many reasons that cause prices to rise in time of war. But even during the war, efforts at price control attained a remarkable degree of success in some countries.

Ricardo's Theory. Years ago David Ricardo stated his famous theory on the flow of the precious metals:

Gold and silver having been chosen for the general medium of circulation, they are by the competition of commerce distributed in such proportions among the different countries of the world as to accommodate themselves to the natural traffic which would take place if no such metals existed and the trade between the countries were purely a trade of barter.

Distribution of gold in recent years has not been along any such lines. In Chapter 14, in a discussion of the balance of international payments of the United States, attention was drawn to the heavy importation of gold in the two years for which a statement was given. Other years may now be added, giving the following net imports from 1934 to 1943, inclusive, in new gold dollars with a large net export in 1944:⁸

1934	\$1,134,000,000
1935	1,739,000,000
1936	1,117,000,000
1937	1,576,000,000
1938	1,974,000,000
1939	3,574,000,000
1940	4,744,000,000
1941	982,000,000
1942	316,000,000
1943	69,000,000
1944	845,000,000 (net exports)

These figures are for net imports and do not include gold production within the United States. Also, gold passes into and out of industrial uses. These points are mentioned in order to explain why the additions to the monetary stock of gold can not be expected to correspond exactly with the amounts imported. These changes have been:

<i>Period</i>	<i>Increase in gold stock</i>	<i>Gold stock at end of period</i>
1934	\$4,202,500,000	\$ 8,238,000,000
1935	1,887,200,000	10,125,000,000
1936	1,132,500,000	11,258,000,000
1937	1,502,500,000	12,760,000,000
1938	1,751,500,000	14,512,000,000
1939	3,132,000,000	17,644,000,000
1940	4,351,200,000	21,995,000,000
1941	741,800,000	22,737,000,000
1942	— 10,300,000	22,726,000,000
1943	— 788,500,000	21,938,000,000
1944	— 1,319,000,000	20,619,000,000
1945	— 554,000,000	20,065,000,000
1946 (five months)	+ 177,000,000	20,242,000,000

There was a heavy addition to money stocks of gold in the United States through 1941 and thereafter an outward movement. The "gold stock" in that country increased from \$8,238,000,000 at the end of 1934, to \$22,737,000,000 at the end of 1941, a gain of \$14,499,000,000. There was then a decrease, some of the stock going to

⁸ *Annual Report of the Director of the Mint of the United States, 1944, p. 56, and 1945, p. 61.*

other parts of the Western Hemisphere where countries had exported more to the United States than they had imported and who took gold in part payment. In the early months of 1946 the movement was again slightly reversed.

This large increase in the stock of gold in the United States has been considered a serious "maldistribution." It has been observed that the United States has been receiving gold which has been taken from holes in the ground in other parts of the world, only to put it under guard and at great expense in another hole in the ground — at Fort Knox, Kentucky. It has gone to that country in part because there was a world-wide demand for dollars but in part merely for safe storage. After arrival it might be held by foreign central banks only under earmark, which meant that it had physically been imported but that possession and title still remained with the foreign owners. If taken out of earmark, sale to the Treasury of the United States was compulsory and at the set price of \$35 per ounce.

Because there has been for some years so much secrecy regarding gold holdings, a satisfactory comparison of the stock in the United States with that of other countries can not be made. Some central banks have surrendered their gold to stabilization funds, which have for some time furnished but little information. In other cases, no information even of central bank holdings is available. Probably there are many concealed stocks. When the International Monetary Fund begins its operations, we shall have more complete data. What is known leaves no reason for doubt that there has been a considerable concentration of the world stock in one country. But some of it has already been exported elsewhere and world production has been continued even though at a slower rate. As a result the distribution is changing. With a reminder that data are not complete and that what can be presented is very general, notice Table 60 showing the "monetary stock" of a number of countries on the dates indicated.

Table 60 does not give complete information, but there is enough to warrant two comments. First, as previously pointed out, the amount in the United States has been reduced by a considerable amount — from \$22,737,000,000 at the end of 1941 to \$20,065,000,000 by December, 1945, or over \$2,000,000,000. Several other countries show very considerable increases in the last seven years — among them Switzerland, South Africa, Sweden, and Turkey. The United States is not the only country to which gold has moved.

TABLE 60
GOLD RESERVES OF CENTRAL BANKS AND GOVERNMENTS
(In millions of new dollars)

Country	Amount at end of			
	1938	1943	1944	1945
United Kingdom	4,220	1,300	1,710	1,840
France	2,430	2,000	1,777	1,090
Switzerland	701	964	1,052	1,104
Netherlands	998	500	500	270
Belgium	581	734	—	716
Germany	29	29	29	—
Italy	193	—	—	—
Spain	525	91	105	110
Japan	164	—	—	—
South Africa	220	706	814	914
Sweden	321	387	463	482
Turkey	29	161	221	241
United States	14,512	21,938	20,619	20,065

SOURCE: *Federal Reserve Bulletin*, July, 1946, with the exception of the data for the United Kingdom which are taken from *Statistical Material Presented during the Washington Negotiations*. Text of a White Paper (Cmd. 6707) presented by the Chancellor of the Exchequer to Parliament, December, 1945. The amount given for the United Kingdom as at the end of August, 1938, includes estimates of private holdings of gold and dollars subsequently requisitioned. The amount for 1945 is for October 31 and is provisional. Also, the United Kingdom figures as given are of "Net gold and U. S. dollar reserves."

Readiness to accept gold in international payments has not disappeared and central banks still report it carefully among their assets.

WILL GOLD BE REDISTRIBUTED ?

One possibility for the future is that this gold may be further redistributed, at least in part. Considerable amounts were imported into the United States as a "flight of capital." Nationals of many countries feared the instability of foreign currencies more than they feared the instability of the United States dollar. Also, the fear of war and consequent losses caused owners of short-term holdings in other countries or of any other assets that could be liquidated, to dispose of them for cash and then buy dollars.

Now that the war has ended, a reversal of this capital flight probably will occur and funds will move out. Dollars will be offered for pounds, francs, guilders, lire, and other currencies and, as quotations reach the export point, gold may be exported. This, of course, assumes a reasonably stable economic and political situation in other countries. Also, it assumes that gold will continue to be gen-

erally acceptable as a means of international settlement. Keeping the same assumptions in mind, there may also be United States investments abroad, either by private lenders or by government agencies. This will add to the supply of dollars and again some of the amounts available may be taken in the form of gold.

The Future Balance of Payments. If the world returns to the gold standard in a form even in part like that of the past, and if there is an outflow of gold from the United States caused by a reversal of the flight of capital and by new foreign loans by the United States, there would still be only a partial and perhaps a temporary redistribution. Unless there is some modification in the economic relations of the United States with the rest of the world, there may soon be a demand for dollars so great that gold may again be imported.

In this connection examine again Figure 23 (page 246). Notice that the total world supply and use of dollars given in the first section of the figure closely corresponded. The middle section shows the "Dollars Supplied" and the bottom section shows the "Dollars Used," each according to main categories. During the years from 1921 to 1928 there was a flow of long-term capital from the United States greater than the inflow during the same period. These loans abroad kept replenishing the supply of dollars, and until they diminished, helped to maintain an equilibrium which was abruptly upset when lending ceased. After 1929 and particularly after 1934, conditions rapidly deteriorated.

Will there be a repetition of this experience? In a world where so many amazing things have occurred during the last two or three decades, predictions are hazardous. But if we should assume that organizations and procedures in the future will resemble at least roughly those of the past, a few comments may be made. Repeatedly in this volume we have pointed out that many careless statements are made about the balance of international payments. Countries do not become "mature creditors" in an orderly fashion, gradually developing an import balance on current items. Instead, they go on adding to their foreign investments, occasionally losing heavily as did France, or liquidating part of their holdings as did Great Britain in the First World War and again in the Second. If there is an orderly world in the future, the United States might add indefinitely to its foreign investments, persistently reinvesting the amounts due from the servicing of past loans.

But such a development is highly improbable. There are as yet few signs of world stability and many signs of unrest. Then, too, if loans are made in large amounts in a short period of time, there is a strong probability that some of the funds will not be used productively in any sense of the word and that many of the borrowers will not be able to service the loans even in their own currencies. If such situations arise, there will doubtless be a hesitancy in making new loans and perhaps a desire to "repatriate capital" to the United States. Since most fixed capital can not literally be moved, its owners can merely sell it for foreign currencies and buy dollars as they did a few years ago. Owners of "working capital" in other countries will do the same with a demand for dollars that will result in a movement of gold into the United States. We can by no means be sure that if gold is redistributed in some suitable manner, it will not soon come rushing back to the United States.

IS THERE ANY BETTER BASE THAN GOLD?

It is to be expected that there will be a continuing debate over the gold standard. A basic reason is that no human institutions remain unchanged but are constantly being modified, at times slowly and at other times rapidly. Monetary standards have been no exception to this rule, and no matter how satisfactory gold may have been for many decades, something better may perhaps be devised.

Another Commodity as Standard. No other single commodity would be better than gold. That gold has certain defects is clear but most or all of them would be found in any other single commodity. Difficulties experienced with gold would appear if silver or any other single commodity were substituted for it. Some would urge bimetallism (both gold and silver) but the market ratio between the two has fluctuated widely with silver falling in terms of gold. From 1687 to 1873 (nearly two hundred years) the market ratio changed but little, remaining between 14 to 1 and 16 to 1. Since 1873 the changes in the ratio have been extreme with the trend of silver downward, the low thus far being 99.76 to 1 in 1940. This has been ascribable to many influences, including the "demonetization" of silver. If a considerable number of countries should adopt bimetallism, the consequent increase in the demand for silver would raise the market ratio but it is very doubtful if it could be kept at whatever coinage ratio was chosen.

Gold in Domestic Credit. Gold as a monetary base performs two functions. One is to control the volume of domestic credit. Ignoring for the moment the effect of large imports and exports, it may be said that this control has been exercised imperfectly. It does not follow from this statement that any other control would have been better. No control would have been perfect even if we are sure what we mean by perfection. The defects in the operation of the gold standard have led to the attempts at control that have been described here. From adjustment of rediscount rates and open market operations, the controls have come to include other devices, all being summed up in the word "sterilization" or "neutralization." More and more dissatisfaction has been expressed over ups and downs in prices and production, with efforts to eliminate at least the influence of gold as a cause. The meager results secured permit the conclusion that far more than the size of gold reserves must be included in any explanation of business cycles. Currently, either oversaving or underinvestment is receiving major attention as a basic cause.

Presumably each country will decide for itself the extent to which it desires to retain gold as a monetary base for internal controls. As yet, gold is being reported in the statements of central banks, and there are in many countries stabilization funds to which gold has been turned over by the central banks. As this is done, the assets behind the money used within each country are undergoing a change. Stated very broadly, we have passed from the use of gold as an important part of the circulating medium, through a period in which the money used (bank notes and deposits) was backed by a gold reserve plus commercial paper issued to finance goods passing from producer to consumer, into a period in which the assets of our banks are largely government promises to pay. How long this will continue no one can say, but controls, if effectively exercised, will call for new techniques.

Our concern in this volume is primarily with international and world affairs, not with domestic conditions. The two can not be sharply separated. Nor can a distinct line be drawn between monetary and other influences. Yet it is helpful to discuss them separately, with a repetition of the observation that money may be quite passive or it may be a highly active force. No matter how ill advised our many plans for economic reform may prove to be, we should not overlook the widespread conviction that changes should be made in our economic institutions with a view to meet

the "growing desire for social and economic stability." The following statement expresses a common view: ⁹

What the world was groping for was the maximum degree of international stability consistent with freedom to pursue autonomous national policies to moderate the violence of economic fluctuations.

Gold as International Money. There is little possibility of international economic stability (which will ordinarily be mirrored in the quotations for foreign exchange) without domestic stability. Conversely, domestic stability is difficult or impossible if the national economy is at the mercy of external forces which may at any time threaten that stability. No merely monetary measures can prevent such long-run adjustments as, for example, those being forced on Great Britain by industrialization of other parts of the world. Note the following percentage increases in industrial production from 1929 to 1938: ¹⁰

U.S.S.R.	313	Estonia	46
Japan	75	Sweden	46
Latvia	75	Chile	37
Greece	65	Denmark	36
Finland	56	New Zealand	35
Eire	49	Rumania	33

Due allowance should be made for the fact that these are percentages. Some of the countries are small and in many the production of the base year (1928) was not large and a percentage gain needs interpretation. Nevertheless, industrialization is spreading and seems likely to spread further. Presumably this will ultimately increase rather than diminish the total of world trade but the direction and composition of the trade will be altered, thus forcing many internal adjustments.

But no matter what changes may come we do not yet have a world money. Even the approximation to it of years ago, when London was the leading financial center and sterling was widely acceptable as a means of payment, has disappeared with no present signs of its return and with no other national currency taking its place. The United Nations endeavored at the conference in Bretton Woods, New Hampshire, to plan for greater stability and the monetary fund and the bank which they proposed may soon come into existence.

⁹ *International Currency Experience*, Geneva, The League of Nations, 1944, p. 191.

¹⁰ *Ibid.*, p. 196.

Experience with the gold exchange standard shows its limitations. As strains began to appear, more and more efforts were made (1) to neutralize the domestic effects of gold imports and exports, and (2) to hold considerable stocks of gold as an international reserve (rather than for internal expansion) for export in case of need without a disturbing effect on domestic business. This is a reminder that an adequate "settler" of international balances is still needed.

When the balance of international payments of any country is disturbed, equilibrium may be restored by an increase (or decrease) of any of the credit or debit items in the long list. Commodity trade may be stimulated or depressed, long-term securities may be sold in the necessary direction, short-term balances may go up (or down). Exchange stabilization funds may aid. These equilibrating factors are often adequate but at times nothing will serve the purpose except something with a wide range of acceptability. That gold has its limitations is clear. That there may be periods when gold will be heavily concentrated in some one country, as in France in 1928 and as in the United States at present, is likewise clear. But this is merely to say that "money" is incapable of correcting all the economic ills of the world. Gold still performs a useful function. If it were abandoned, as many urge, one stabilizing factor which is of at least moderate usefulness would be gone. In any case, it is retained in the International Monetary Fund which we shall examine in a later chapter.

PART EIGHT
CURRENT WORLD CONDITIONS

DESTRUCTION OR DISLOCATION?

In 1943, the League of Nations Delegation on Economic Depression declared: "No one could desire to revive the international economic system of 1939, for there was none — only the ruins of a system." This statement is in strong contrast to the attitude prevalent after the end of the First World War. At that time much was said about "reconstruction" or "*Wiederaufbau*." Attention was concentrated to a very large degree on the physical destruction that had occurred and on a restoration of the international relationships of earlier years.

Today there is a different emphasis and on two ideas. One is that rebuilding physical properties is a larger task than it was twenty-five years ago but that correcting the economic dislocations will be even more difficult. The other is that a mere return to all of the older organizations and procedures would be ineffective. The twentieth-century world is very different from that of the nineteenth century. Institutions that worked reasonably well one hundred or even fifty years ago may not be suitable now.

This opens up a vast field. There are raised countless issues involving not only economics but politics, international law, social psychology, and other areas of inquiry into which it is impossible for us to enter in this volume. We are concerned with economic questions and shall limit ourselves to them as closely as possible. But record should be made of the impossibility of considering economic issues in a vacuum. While confining ourselves to economics, there must be occasional references to other areas of human knowledge. Moreover, the economists of today, like those of years ago, must accept as assumptions the findings of biologists, anthropologists, sociologists, political scientists, and others upon which economic analysis must depend.

Also there are certain unavoidable difficulties. This is a period of unusually rapid change. Conditions at the time these pages go

to press may be greatly altered within a few weeks or months. Within the first nine months of 1945, the Second World War came to an end; the Charter of the United Nations was drafted and ratified by a number of countries; the proposals for an International Monetary Fund and an International Bank for Reconstruction and Development were accepted by the Congress of the United States and ratified by several other countries; the Constitution of the Food and Agriculture Organization of the United Nations was adhered to by the United States and by others; deliveries by the United States under the lend-lease agreements have been discontinued; the use of atomic energy in war is a reality and its early adaptation to civilian uses is being forecast.

During the latter part of that same year and in 1946 developments continued. The Assembly of the United Nations met in London and again in New York. Its organization has taken shape and its operations have begun. Several of the various functional organizations have entered into relations with the United Nations and others have been brought into existence. Upon the "ruins of a system" new structures are being erected.

This is not a volume on current world affairs but a more general treatment designed to furnish a general background. This closing section — Part Eight — deals with a few but only a few topics upon which it seems reasonably safe to record judgments. It should be read, however, with a realization that conditions are constantly changing. This will explain a failure to include many details which otherwise would be appropriate. In a world where the tempo of change is constantly increasing, it is more and more important to forecast but at the same time more and more difficult to do so.

WHAT DO WE WANT?

National and even racial groups do not differ in those characteristics which may be called biological, no matter how many such differences there may be among individuals within each group. To be more exact, such differences, if they exist, have not been conclusively proven. This is, of course, aside from such matters as skin pigmentation and texture of the hair, though it should be added that there seems to be more uncertainty than ever before about distinctions between "nature" and "nurture" or between inherited and environmental influences.

Environmental Influences. Even if it is correct to say that there

are no inherited differences between national and racial groups, it does not follow that national or racial attitudes are alike. Climate, food, geographical location, topography, historical background, traditions, literature, patriotism, religion, and other factors may properly be classed as environmental. Since they are not the same from one national or racial group to another, these groups do not behave in similar ways. It may even be that the task we have in trying to get along better with each other is even more difficult with "nurture" rather than "nature" as the explanation.

Starting then with the assumption that we are concerned primarily if not solely with institutions and ideas determined by environment as distinct from biologically inherited characteristics (an assumption that must be altered if the scientists in those fields change their findings), we still have vast complexities to consider. As soon as proposals are made for any particular line of action, disputes arise because human beings are by no means in agreement. There is a "lunatic fringe" that may be ignored but the keenest and best-trained specialists are often far apart in their proposals. One reason for this is the vast size and complexity of the issues and the overwhelming amount of data to be considered. Another and more powerful reason is the presence of many intangibles that can not be counted or weighed. There is a considerable agreement so long as terminology is general and perhaps vague but profound disagreements whenever specific programs are suggested. Words like "democracy" and "justice" and "human rights" are immediately acceptable in most quarters but when they are translated into proposals for action feelings are strong.

One illustration is the controversy centering about "private enterprise" and "government interference." One group of disputants emphasizes the losses to "human freedom" as "government interference" increases. The words used are ones that stir emotions since we all favor "freedom" and object to "interference," but even so there are sharp differences of judgment. On the one hand, there are the large and diverse groups loosely known as socialists or collectivists, and on the other those who merely reiterate formulae such as "competition is the life of trade" or "that government is best which governs least" and, in addition, many who argue clearly and vigorously against current trends.¹ Other controversies are

¹ As an illustration of such a presentation, see Hayek, Friedrich A. von, *The Road to Serfdom*, University of Chicago Press, 1944.

waged over nationalism and internationalism, security and freedom, and other issues.

These controversies are not irrelevant. Many of the considerations are basic. Even if we can say in some cases that the proponents merely have prejudices or habits of mind, it may be pointed out that emotions and habits of thought are among the "facts of life" with which we must deal. But such matters as these call for extended treatment and we can only refer to them. Agreement is at least possible that the trend for many decades has been in the direction (1) of more social or government controls, and (2) of nationalism and its economic counterpart — self-sufficiency.

What We Want. In this diversity of judgments a few agreements can be found even though the means to be employed are matters of heated controversy. Several may be indicated. The first is a desire that war shall cease to be an instrument of national policy. The second is a desire to avoid economic conflicts that are destructive. This is not so clear because we still cling rightly or wrongly to the "liberal" view that productive resources should be allocated by their owners in ways that will yield to them the largest returns. This means competition, which is often ruthless and destructive. Nevertheless, there is a growing belief that its worst features should be brought under more control.

The third is a conviction that productivity should be increased, that national incomes should be enlarged. The world is "a wretchedly poor place," and even in those countries where per capita incomes are the highest there is not enough, even if it were evenly distributed, to satisfy human beings whose wants are "indefinitely expandible." The fourth is a longing for greater economic stability, for control of the business cycle. The fifth is an insistent demand for economic security. The sixth and last agreement in our list is a belief, not that there should be an equal distribution of income, but that the distribution should be less unequal.

SOME ECONOMIC FUNDAMENTALS

In many discussions the words wealth and income are used without distinction between them. Often this makes little or no difference, but in the paragraphs following they should not be confused. The wealth of any country is all the economic goods within the country. Often the word capital is given a broad meaning and is synonymous with wealth, including all land and other natural

resources, permanent improvements, tools, machines, livestock, and so forth. Its amount is the total of these items at a given instant of time, usually expressed in terms of money. Income is a flow or stream of material commodities and services produced (or acquired) during a period of time, say a year. Of the two, income may be designated as the one that human beings really desire, wealth being merely those physical objects with the aid of which income is created.

War Comes C.O.D. The next step is to inquire whether war is fought with wealth or with income. Does a nation at war utilize its accumulated stock of wealth or its flow of income while the war is in progress? The answer is that both are used but chiefly the latter. At the outbreak of war there is on hand a stock of guns, ammunition, uniforms, and other items of wealth. This stock may be very considerable, perhaps having been accumulated in anticipation of war. Nevertheless, main reliance must be placed on production during the war — on an enlarged and modified flow of commodities and services needed. Farms and factories — which are wealth — are not themselves used up (except to an extent to be mentioned later) but are operated to provide the income needed — a flow or stream of food, clothing, guns, ammunition, warships, and airplanes. Under the stimuli applied at such times, this income stream may be vastly enlarged and its composition will be so modified as to contain far more than usual of the particular articles used in war and far less of the nonessential products of peacetime.

It may be added that the burden of providing this flow of income for war uses can not be shifted to later generations. Whatever is produced in the years to come can not be utilized now. The wheat, cotton, bullets, tractors, and airplanes of the future are not helpful in the present. War comes C.O.D. The same may be said of consumption during peace. To a slight extent people may draw on past efforts because they can utilize stocks that may have been piled up but they certainly can not use currently what is to be produced or may be produced later.

Some Qualifications. At once some exceptions must be made to this generalization. The first is that a group of people living, say in France from 1914 to 1918, may have arranged with the people of another area, the United States, to direct some of the current income of the United States to French use with the promise that later generations in France would send some of their income to

the United States in repayment. One group may thus shift a burden to its own later generations but if all the world is included a shift of this kind is clearly not possible.

There are still other qualifications. During a war there is a certain amount of destruction of physical properties. Reconstruction of these properties may be entirely out of the question while the war is in progress and this burden may be postponed to later years. Also, there is a wear and tear of physical plant when it is used and some even when it is idle. During war, this "depreciation" may be neglected and later generations will have the burden of making up for the neglect. Finally, accumulated stocks are likely to be reduced during a war and some time and effort are needed later to bring them back to their former size.

These are the main burdens that may be shifted. To them should be added that as time passes income in most countries has an upward trend. This upward trend in income may be retarded during war or, if income is enlarged, much of it is of a sort that can not be accumulated and enjoyed later. When this is coupled with the fact that there is often a postwar slump, it may be said that later generations may have smaller incomes than they would have had if war had not occurred. On the other hand, war, with its horrors, may stimulate inventiveness in ways that make possible a larger income.

WHAT WE ARE FACING

Physical Reconstruction. Actual destruction of physical properties has been greater in the Second World War than in the First. Also, the direct and indirect loss of labor power through death and general deterioration is greater. Except in some areas the exact amounts of these losses can as yet only be guessed at, even though the war has ended. Even later calculations will be far from exact. Loss of life and the impairment of efficiency through malnutrition and otherwise is the greatest of the tragedies, but for the present our attention is concentrated on the destruction or impairment of physical objects. Some of them are of a sort that can never be replaced, but in time farms, factories, railways, and so on can be restored to working condition, always assuming adequate political stability and an opportunity for the productive factors to be effectively utilized.

Displacement of Population. Productive use of these properties even when restored is by human beings. During the war, many mil-

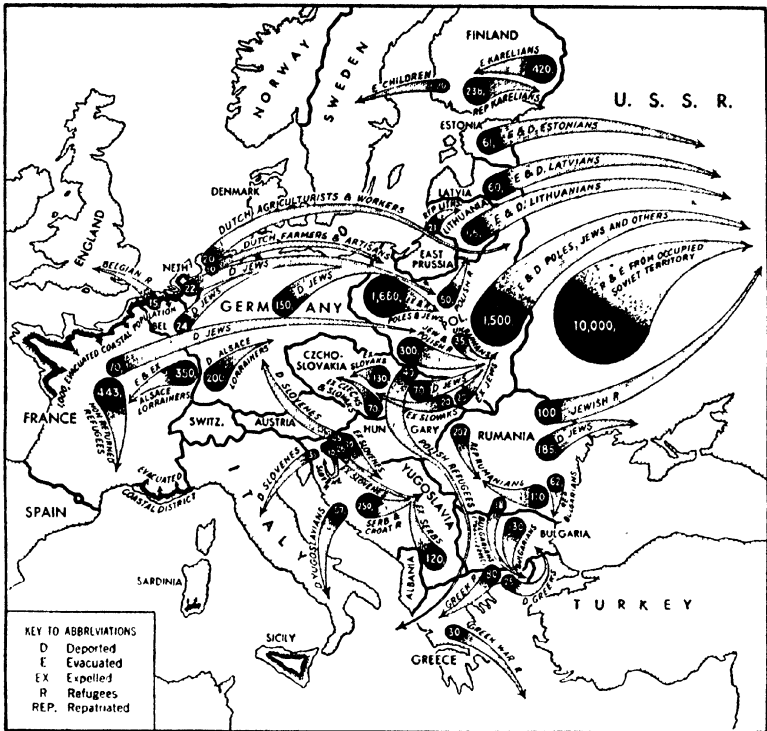


FIGURE 31. Movements of non-German populations in Europe. Numbers on the map are in thousands. (Redrawn from Kulischer, Eugene M., *The Displacement of Population in Europe*, Montreal, International Labour Office, 1943, with the permission of the author and the publishers)

The arrows indicate the area of origin of the main groups of refugees, evacuees, and deported, expelled, or otherwise transferred non-German people who were living away from their homes towards the end of 1942. They do not indicate the actual location of the people concerned but only the general direction in which they were moved or were removed when leaving their homes. Transfers over short distance, or affecting groups of less than 10,000, concentrations in camps or ghettos, transfers of workers, and most evacuations from bombed cities inside each country are not shown.

lions of people voluntarily left their former homes or were compelled to move. How large this displacement was and how gigantic will be the task of readjustment in Europe alone is suggested by Figure 31. On this map are shown the movements of non-Germans only. In addition, many German nationals were displaced and the author

of the volume from which the map has been reproduced concludes² that "more than thirty million of the inhabitants of the continent of Europe have been transplanted or torn from their homes since the beginning of the war." It will be noticed that this estimate was published in 1943. How many more were displaced or how many of the thirty million referred to have by now returned to their former homes or have become adjusted to new locations since the end of the war, no one at present knows. In addition, there are similar displacements in other parts of the world, notably in Asia. Notice the following:³

Europe has not been the only scene of these mass displacements. In China the number of refugees who have left their homes as a result of Japanese aggression is reckoned at 30 to 60 million. The invasion of Malaya led to the evacuation of a large section of the white population. From Burma, Indians fled with Europeans before the advancing Japanese armies. In Abyssinia and North Africa too, military operations have caused population movements. Even in America, so far from the actual theater of operations, the war has led to certain displacements; over 110,000 persons of Japanese race or enemy nationality have been removed from the Pacific zone of the United States and transferred inland.

Some of these millions may remain in their new locations and others will prefer, if possible, to go to still other countries. At the time of writing, the confusion is appalling. No matter what the preferences of the individuals concerned, the end of the conflict is bringing a readjustment of national boundaries and an insistence that minorities in any country must not be allowed to cause troubles similar to those of the past. Among the many migrations that might be listed only two will be mentioned and merely as illustrations. Germans are being compelled to go into a Germany whose area has been reduced by the political settlements and the remaining Jews of Europe are still suffering from persecutions and desire to move elsewhere, especially to Palestine.

Physical Reconstruction. There is always surprise at the speed with which destroyed properties are restored. After World War I only a few years had elapsed before economic output in most of the devastated regions was greater than before the conflict. By 1928, the devastated areas of France were more productive than

² Kulischer, Eugene M., *The Displacement of Population in Europe*, Montreal, International Labour Office, 1943, p. 163.

³ *Ibid.*, p. 2.

they had been in 1914.⁴ There are two reasons. One was admirably stated about a century ago by John Stuart Mill in the following words:⁵

An enemy lays waste a country by fire and sword, and destroys or carries away nearly all the moveable wealth existing in it: all the inhabitants are ruined, and yet, in a few years after, everything is much as it was before. . . . There is nothing at all wonderful in the matter. What the enemy have destroyed would have been destroyed in a little time by the inhabitants themselves: the wealth which they so rapidly reproduce, would have needed to be reproduced and would have been reproduced in any case, and probably in as short a time.

Another way of stating it is to say that physical property is constantly depreciating. Within a few years a freight car, a locomotive, or a tool has deteriorated from use. At any given time the equipment is worn out in various degrees, some items being relatively new and others older, some perhaps about ready for the scrap heap. A properly managed enterprise sets aside something each year from earnings merely for the purpose of replacing what is worn out with new and often better equipment. Also equipment, though physically in working condition, may have become "obsolete." Obsolescence as distinct from depreciation is often unpredictable but is an increasingly important item in modern industry.

To a greater or less extent, a war speeds up a process of replacement that is always going on, war or no war. Moreover, the new tools and machines as well as the buildings that are constructed in place of the old are apt to be of modern design and of greater efficiency. This is so often the case that devastated areas which their populations are compelled to rebuild, sometimes are able to produce at lower costs than their competitors who suffered no physical destruction during the war but continue production with less modern tools and methods.

A second reason is the ability to produce rapidly with modern technical direction — with what has been called the "know how." The first of the factors of production — land or natural resources — even if neglected by human beings, often shows great evidence of recuperative power although weeds may grow instead of grain.

⁴ The British Commercial Secretary in Paris, Mr. J. R. Cahill, in his *Report on Economic Conditions in France in 1928*, Department of Overseas Trade, pp. 50-51, stated: "The devastated areas possess now an economic capacity far superior to that of 1914." He follows this statement with a detailed account of the extent of reconstruction and of the improvement in equipment and in methods.

⁵ *The Principles of Political Economy*, 1848, Book I, chap. V, par. 7.

With only a moderate amount of attention from man, crops will quickly appear. They may be poor because of a lack of fertilizer or drainage or irrigation but in many areas something will spring up. Nature herself is productive.

Under suitable conditions labor is able to rebuild rapidly what has been destroyed. In some parts of the war-devastated areas of Europe, recovery may lag but the mass of mankind in that Continent are industrious and frugal. With the aid of the third factor — capital — rebuilding can be accomplished when desired and in a short space of time. Productive capacity is great, and if given an opportunity, reconstruction can and will be accomplished quickly.

The possibility of quick reconstruction should not be exaggerated. Restoration will be speedy in some regions but slower in others. Only a fraction of the productive areas has been touched by the conflict and many of them only slightly. Yet there are others where the effects have been most serious though reliable information is still meager. The destruction of the dikes in the Netherlands, causing the flooding of large areas with salt water, has presumably destroyed agricultural production for some years. It may be that no attempt will be made fully to reconstruct certain cities such as Berlin, but their equivalent in productive capacity can be built elsewhere as desired if suitable conditions exist.

Dislocation. Dislocations are another matter. The world as a whole can not escape paying for wars while they are being waged. Yet during the war, dislocations occur whose correction is far more difficult than is physical reconstruction. Over and over again in the preceding pages, we have noticed that there are no permanent economic relationships even in times of peace. There are always changes occurring which tend to upset equilibrium, and always there are adjustments. During war, the dislocations are particularly severe and come in a short period of time and many of them come simultaneously.

Trade. In times of peace, business men are constantly losing old markets but are continually finding others. These new outlets for their products are developed with effort and often at great expense. During war, these markets may suddenly be lost, and competitors in other countries may be hard to dislodge when the war ends. Or a country like the United States may have relied heavily upon some source of supply for raw materials, but, during war, may find other sources or learn to use substitutes.

These are illustrations of changes in markets or sources of supply for particular commodities. How great they may be in the aggregate is suggested by noticing recent alterations in the totals of imports and exports for certain countries. Ten illustrations are given in Figure 32, showing the fluctuations in total exports and imports of several countries from 1939. Observe the great advance in exports from the United States, Canada, Argentina, and Cuba, the increase of imports into the United Kingdom and Australia and their decrease for Denmark, Sweden, and Switzerland.

Those countries whose exports have increased greatly, creating a large "favorable" balance of trade, have in some cases maintained their imports at or near the former level (in value if not in quantum). This is true of the United States, of which the exports under lend-lease advanced while "cash" exports were less than imports. Canada, too, has greatly increased exports under "mutual aid" arrangements. As these special methods of stimulating exports are discontinued, the two countries find themselves with a highly developed capacity for producing commodities for export but with the demand reduced. Desire in other countries for similar or perhaps different American and Canadian products persists but there will be a shortage of United States and Canadian dollars for payment unless imports into these countries greatly increase or credits are arranged. Cuba and Argentina have likewise increased their exports and have accumulated large balances, especially in the United States, which may be utilized for purchases. All four of these countries face the task of reducing their capacity to produce goods for export. Until this can be accomplished, they will be active in their efforts to continue foreign sales.

Quite the opposite is the experience of the United Kingdom, the exports of which have sharply declined even in value and far more in quantum, while imports have greatly increased. This movement, as previously pointed out, has been supported by a large "disinvestment" of British ownership of foreign securities, by lend-lease and mutual aid arrangements, and by the accumulation of the "blocked" balances in London which are owing to other countries in the Commonwealth (especially to India) and to Egypt. With the reduction in visible exports and with the loss of much of the interest formerly received on foreign investments and with the obligations of the "blocked" balances, the United Kingdom faces a very difficult task of adjustment. Exports must be stimulated in

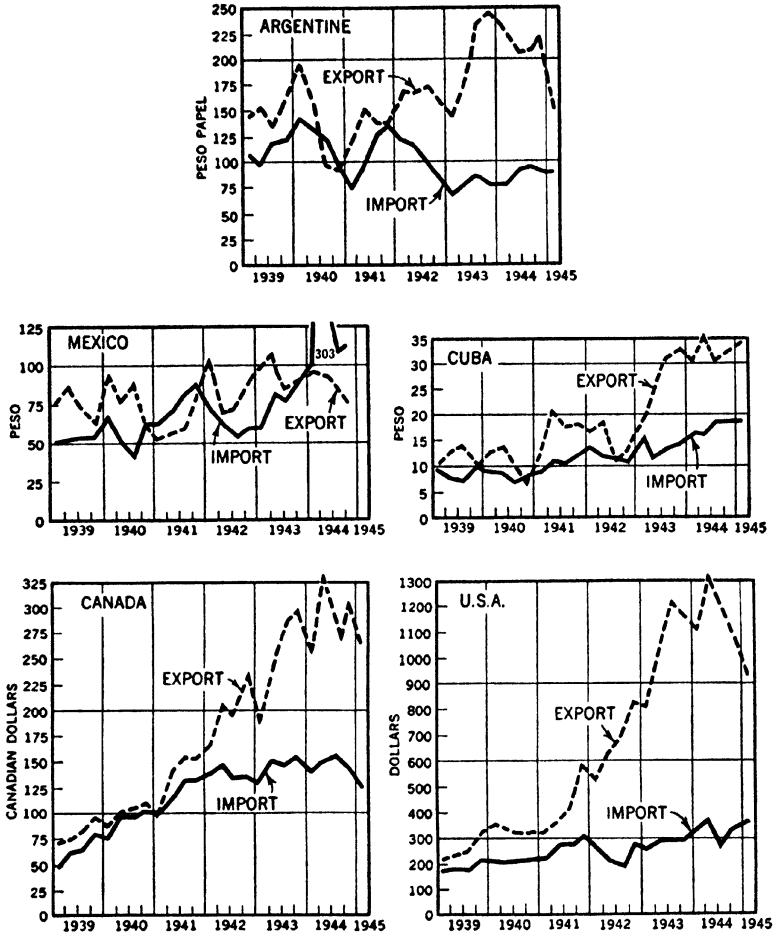


FIGURE 32. Quarterly movement of the value of foreign trade, 1939-1944; monthly averages in currencies indicated (000,000). (From *Monthly Bulletin of Statistics*, Geneva, The League of Nations, May, 1945)

order to secure foreign exchange with which to purchase imports. Denmark during the war not only lost both import and export trade but what remained was to a considerable extent to and from markets with which trade will doubtless be modified. Much the same changes have been experienced by the neutral countries—Sweden and Switzerland.

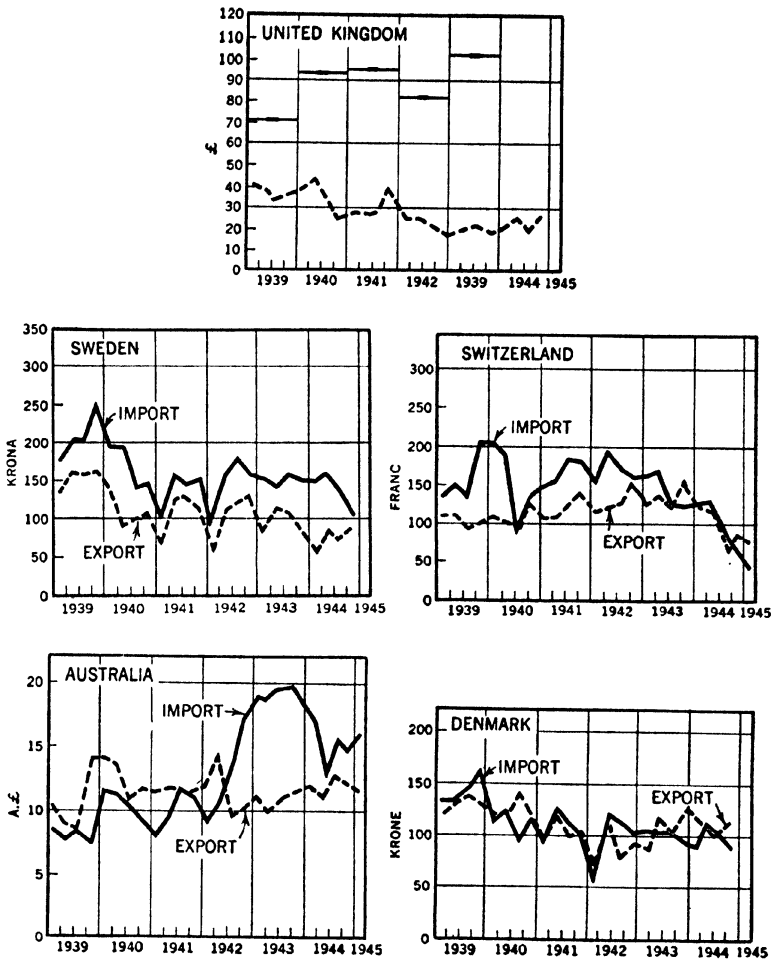


FIGURE 32 (continued).

Prices. In "normal" times there were "world markets," and prices for many commodities were approximately the same in all countries (though expressed in different currencies), with adjustments for transportation costs. Between the two wars, as various controls developed and as attempts were made to "neutralize" the flow of funds, differentials became greater. What has happened during the last thirty years is indicated by Figure 33, which shows

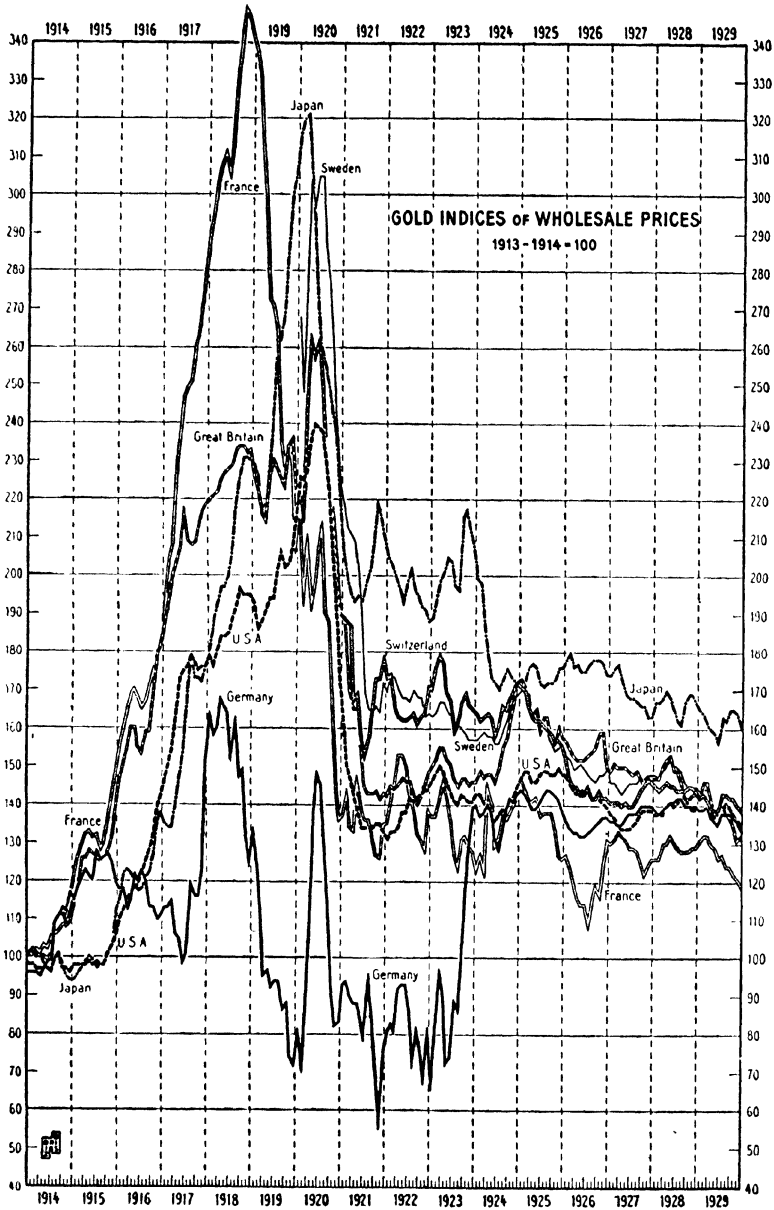
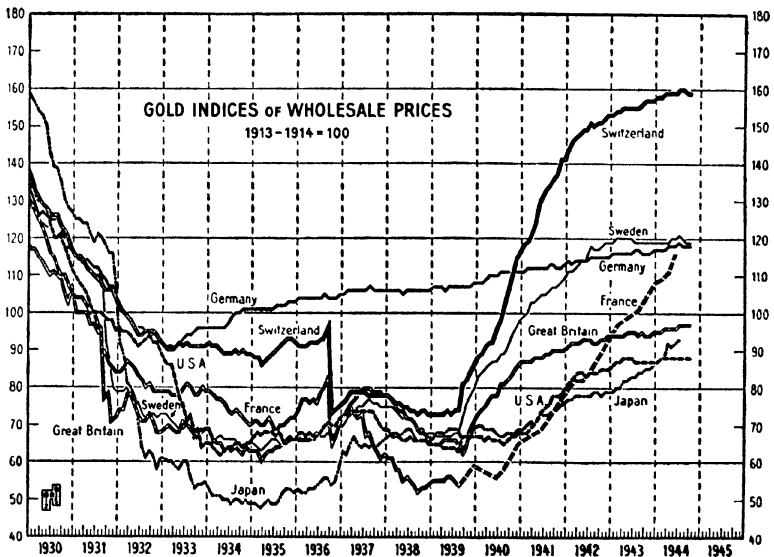


FIGURE 33. Wholesale price movements, 1914-1944. (From the *Fourteenth Annual*

changes in a number of countries since 1914. Using 1913-14 as 100, the figure indicates the fluctuation of wholesale prices from 1914 to 1944.

Price changes for only a few countries are indicated on this chart and it is to be noticed that the curves show fluctuations in the gold indices of prices and not in paper money. In Germany in 1923 prices in paper marks rose to fantastic levels. Also the fluctuations are shown only through 1944. By the middle of 1946 there had been price increases in some countries even greater than during and following the First World War. Among this group were China, Greece, and Hungary.

During the First World War, price advances were sharp, the rise continuing and in some countries even being accelerated until the crash in 1920. Thereafter a certain amount of stability was attained until 1929, but the ensuing decline was much the same for several years in all the countries indicated. Then during several more years there were marked differences, some of which are to be explained by the growth of trade barriers and exchange controls. Since 1939 there have been new upward movements, the advances varying from country to country.



Report, Bank for International Settlements, Basle, Switzerland)

Within each country prices have a double significance. To producers they are costs for the factors of production and selling prices for output. The fluctuations shown in Figure 33 do not reveal the dislocations that have occurred. Some factor costs have risen more than others, and the same is true of the prices at which products are marketed. The other angle from which price changes may be viewed is that of the purchaser of the commodities. His income may or may not have advanced to a degree that corresponds closely with the changes in the prices of what he buys. There are countless internal adjustments to be made before anything like stability can be attained within each country. Labor will everywhere press for higher monetary returns and management will insist that in order to pay the higher wages selling prices must be raised.

Competition for foreign markets, which will be keen because of the balance of payments position, will on the other hand be an influence that will depress selling prices. With efforts to raise domestic prices and the necessity of lowering prices on sales abroad, there will be a renewal of the tendency to maintain two sets of prices — higher at home than abroad. But this difference will be possible only with controls. These may be by government in the form of import duties or quotas or exchange controls or they may be by the international cartels, either with or without government participation. Under such conditions it is not to be expected that the mere destruction of certain cartels, such as I. G. Farbenindustrie, will reach the basic difficulties. German cartels may have operated in a particularly obnoxious and dangerous manner, but the reasons for the organization of cartels are basic and will not quickly vanish.

Nor will governments readily resume the former "liberal" attitude toward business. The pressures for full employment and for social security are increasing, not diminishing. Positions on protection and subsidies, it is true, have changed. At present the United States is stressing free multilateral trade instead of the high tariff view, although it is by no means clear that existing trade barriers will be appreciably lowered. The British, who have traditionally upheld "liberalism" and have only in recent years imposed protective duties, seem now to be less "liberal" than the United States. But an altered British attitude may be used as an argument for a continuance or even an increase of American protective practices.

In a later chapter we shall describe the International Monetary Fund. Here we need only point out that prices are by no means

stable in any country. The volume of money in circulation has greatly increased, in many cases far more than the growth in the country's real income. Prices have risen enormously in a few countries, in China, for example, and only moderately in others, as in Canada, the United Kingdom, and the United States. But even where the advance has been slight there is still great concern over the possibility of a rise in prices in the near future. Until a considerable degree of price stability has been secured, there will either be a continuance of foreign exchange controls or an erratic foreign exchange market, in which the correct "equilibrium" rates can not be set by conscious action, while the free play of market forces which might help to reveal such a rate will not be allowed to operate. A prompt return to "automatic correctives" and to the "rules of the game" as formerly observed seems to be out of the question.

Public Debts. Internal indebtedness has risen and in many forms. This debt may have internal repercussions as it has in the past and in turn may affect business relations with other countries. Such debt appears in many forms. Some, such as the increased note issues of banks and government indebtedness often held in large part by the banks, may sooner or later have a definite influence on prices or even be repudiated. Others, such as a growth in the indebtedness of individuals and corporations, may mean later bankruptcy. Only a few years ago disaster was predicted when the public federal debt in the United States approached \$50,000,000,000. At the time of writing it is being slightly reduced and the legal limit is \$275,000,000,000. Ability to service this debt will depend on the size of the national income and the price level in which that income is expressed. The same is true of other countries. They are referred to here only because those internal debts place each national economy under severe strain and will consequently affect its relations with others. Also, these debts will intensify the general demand for "full employment" and for government controls for attaining it. These controls in turn may or may not be of a sort that will encourage enlarged international trade. Instead, they may have the reverse effect.

An external debt is of special significance. Most important in the immediate future is that of the United Kingdom. Only a few years ago that country was a creditor country. But many changes have occurred. A British official statement in 1944 pointed out:⁶

⁶ *Labor and Industry in Britain*, British Information Services, London, Vol. 11, No. 8, August, 1944, p. 134.

Britain, to meet war costs, has had to sell overseas assets amounting to \$4,000,000,000, and to incur overseas liabilities amounting to more than \$8,000,000,000. These liabilities are increasing at a heavy cost. And all this is quite apart from the aid received under lend-lease from the United States, and under special conditions from Canada.

This statement was for 1944. How much of a change had occurred by June, 1945, was set forth by the British representatives during the negotiations for the \$3,750,000,000 credit from the United States which was approved by the Congress and the President in July, 1946. The amounts were in many cases presented as estimates and are not final.⁷

In September, 1939, the overseas assets of the United Kingdom were estimated at £4,000,000,000 (net). By June, 1945, the following changes were said to have occurred. Amounts are given in dollars, pounds being converted at \$4.03 and gold reserves valued at \$35 per ounce fine:

Realization of External Capital Assets	\$ 4,500,000,000
Increase in External Liabilities	11,605,000,000
Decrease in Gold and U. S. Dollar Reserves	615,000,000
Unallocated	<u>195,000,000</u>
Total Disinvestment	\$16,915,000,000

If these estimates are approximately correct, the United Kingdom which was a net creditor in the amount of about \$16,000,000,000 in 1939 has sold assets and assumed liabilities in excess of that sum and was in June, 1945, a net debtor. Advances under lend-lease arrangements are not included since these have since been eliminated, but several other items should be added. First is the credit arranged with the United States amounting to the \$3,750,000,000 approved by the Congress plus \$650,000,000 in settlement of miscellaneous transactions, or a total of \$4,400,000,000 for the two, bringing the aggregate "disinvestment" to \$21,315,000,000. Subsequent to June, 1945, other liabilities have doubtless been assumed but estimates of the net results are not yet at hand.

No one can state with accuracy the aggregate of all these changes. In 1938 the estimated "net income from overseas investments" was £200,000,000 (\$800,000,000) while for 1945 this was given as \$390,000,000. In view of the disinvestment of over \$21,000,000,000, adjustments will doubtless be made. The capital amounts due, for example, on the "blocked accounts" may be reduced through nego-

⁷ *Statistical Material Presented during the Washington Negotiations*. Text of a White Paper (Cmd. 6707) presented by the Chancellor of the Exchequer to Parliament, December, 1945.

tiations, particularly with India and with Egypt. But this scaling down of the principal amounts due may be accompanied by a change of the remainder into a funded interest-bearing debt. Whatever service charges are assumed may be an addition to the external payments to be made each year by the United Kingdom.

Another change is in the size of the British merchant fleet. In September, 1939, its capacity was 22,100,000 deadweight tons. It is calculated that by June, 1945, after allowance for losses, captures, new construction, and other items, the capacity was 15,900,000 deadweight tons, a decline of about one third, but apparently without the inclusion of shipping under construction. In the period covered the tonnage of ocean shipping under the flags of other countries has increased, notably that of the United States. It seems probable that after a short period ocean shipping rates will be sharply reduced in a competitive struggle and that British income from that source will be materially less than in 1938.

POSSIBLE APPROACHES TO WORLD ORGANIZATION

Presumably these illustrations of dislocation are adequate. It is not at all likely that out of the "ruins" of the older system there will be a completely different set of procedures and relationships. The old does not suddenly disappear, displaced completely by hitherto untried methods and organizations. Changes are always occurring, at some times more rapidly than at others, but some characteristics of the "old order" will persist even though profoundly modified. Political alignments shift, national economic systems change, even mental patterns are altered, but never is the break complete.

Yet this is an era of particularly rapid change. Notice the growth of technology in one field alone — transportation. This is illustrated vividly by Figure 34, showing technical progress in travel time. Only a century ago the best regular speed on land and sea was 10 miles per hour. In 1939, it was 200 miles per hour, which means that for purposes of much travel the world had shrunk to one twentieth of its former area. If another map were added to this figure, indicating developments since 1939, it would be much smaller, perhaps one third the size given for that year or one sixtieth of that a hundred years ago. For further emphasis reference may be made to modern wireless communication, which is for all practical purposes instantaneous.

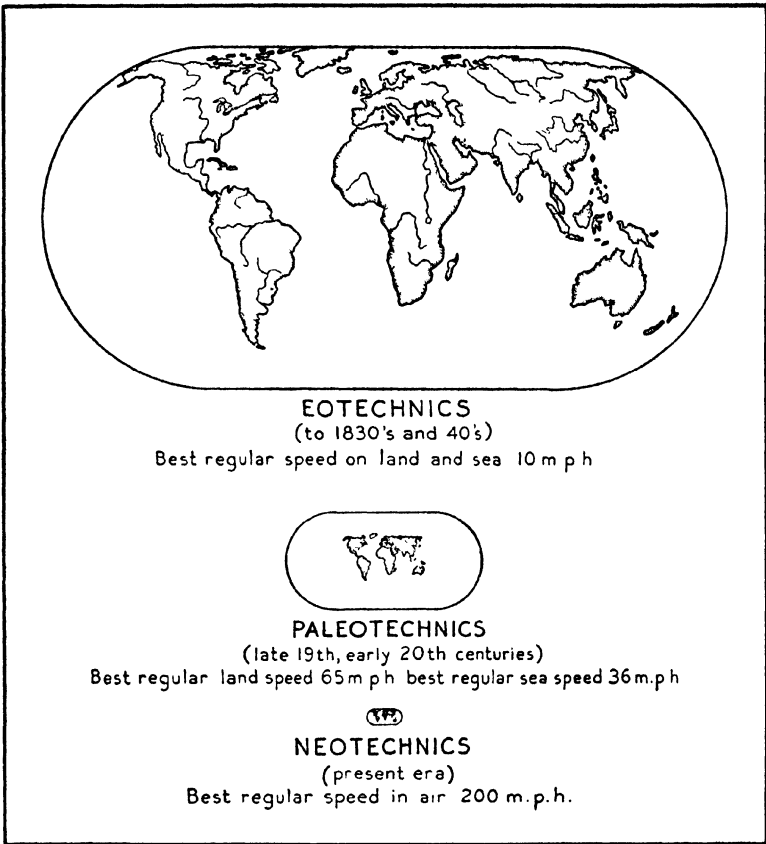


FIGURE 34. Technical progress in travel time: size of the world, supposing the best travel technology in each epoch were applied over the whole surface of the earth. (From Staley, Eugene, *Modern Economy in Transition*, New York, Council on Foreign Relations, 1939, with the permission of the author and the publishers)

Enough has been said throughout this volume to make more examples quite unnecessary. We may confidently assert that new approaches are needed. But until such assertions are couched in more specific terms they are not very helpful. Two may be mentioned by way of introduction to the chapters that follow. One of them is the *federal* and the other is the *functional*.⁸

⁸ See Mitrany, David, *A Working Peace System*, published as a pamphlet by the Royal Institute of International Affairs, London and New York; reprinted with a new appendix, February, 1944.

The Federal Approach. At once we are faced with the difficulty previously encountered. Economics can not be treated without reference to politics. The "federal" approach certainly involves political arrangements between governmental units which claim sovereignty and if grouped under a federal organization would more or less definitely sacrifice some of that sovereignty. That such a sacrifice if openly avowed would meet with strong opposition from many in the United States is not to be questioned, and in varying degrees this is true in other countries. Yet federalization has much to commend it, even on a world-wide basis. To quote the late Mr. Wendell Willkie, this is "one world." Each part has close relations with each other part, and we shall undoubtedly find persistent efforts to recognize this dependence and to establish a suitable legal framework for the world as a whole or at least for a large part of it. Almost countless proposals have been made towards this end and they should be welcomed. Criticism of them serves to emphasize and clarify, on the one hand, the world-wide solidarity of interests, and, on the other, the appalling obstacles to be overcome if we are to have a strong world federation.

Regional federations are at least superficially a more feasible approach and in some of them there has been encouraging progress. The obstacles encountered emphasize (1) the rather small denominator of common interests that exist even if the members of the federation are countries adjacent to each other, and (2) the task of adjusting the relations of these larger groupings to each other since they may develop into nothing more than a number of larger national groups which will clash.

The Functional Approach. Readers are referred to the pamphlet by David Mitrany just cited for an effective argument in favor of the functional approach. It should not be overlooked that in the absence of a "world order," much has been accomplished in "getting things done." Probably those not familiar with the subject are unaware of the large number of bodies that have for years been carrying on their activities in connection with matters of wider than national importance. Some are private and some semiprivate while others are intergovernmental. In the long list that might be given are, to name but a few, the Universal Postal Union, the International Telegraphic Bureau, the Pan American Union, the International Institute for Agriculture, and the International Labour Organization. There are special international commissions galore

which have undertaken special tasks in certain areas such as the International Commission of the Danube and the International Joint Committee for the United States and Canada.⁹

A functional approach has several advantages. One is that any concessions of sovereignty that are involved (and of course there are many) are within definitely specified fields, are for limited purposes, and may be for definite periods of time. Another advantage is that of time. Without waiting for a world order which will undertake a particular task as part of its work, the world postal service can be regularized, labor problems can be examined and recommendations made, relations between national currencies may be agreed upon, as in the Tripartite Agreement of 1936, and many other useful ends achieved. Disadvantages are the qualified form and the uncertainty of continuance of such agreements. Also, in the absence of an over-all authority to correlate their activities, there may be conflicts of jurisdiction and they may even work at cross-purposes.

During the Second World War, as soon as the pressing task of organizing the military effort got well under way, attempts were made to care for some of the particular tasks with which the world is confronted. The need for adequate nutrition, which had been an object of study, was brought to the front at a conference at Hot Springs, Virginia, in 1943. There was formed a United Nations Interim Commission for carrying out its recommendations. The more immediate task of furnishing food and relief was met by the organization of the United Nations Relief and Rehabilitation Administration in the fall months of 1943. Currency stability and international investments have been widely discussed: an International Monetary Fund and an International Bank for Reconstruction and Development came into being on December 27, 1945, when twenty-eight nations ratified Articles of Agreement that had been drafted by representatives of forty-four nations at Bretton Woods, New Hampshire, in July, 1944. The Charter of the United Nations was drafted in San Francisco in 1945. Various functional approaches have been organized and have begun to operate. Changes are occurring. Particular tasks are being undertaken with a larger measure of good will than many had expected. It is too much to say that a completely new world is being created but the shifts in emphasis are striking.

⁹ See Hill, Norman L., *International Administration*, New York, McGraw-Hill Book Company, 1931.

CHAPTER 36

FIRST STEPS TOWARDS WORLD ORGANIZATION

An approach that is purely functional has the disadvantage that different agencies, commissions, or other types of organization, each of which exists to perform a special function, may come into conflict with each other. This is not always the case. For example, the International Postal Union is not apt to clash with the Danubian Commission. But as agencies multiply, there are apt to be areas in which what is done by one is inconsistent with what is done by another and may interfere with it. Thus, the International Labor Organization might be attempting to secure better wages for the workers in Bolivian tin mines, increases which would affect the cost of tin production. The International Monetary Fund might at the same time reach the conclusion that the monetary unit of Bolivia — the boliviano — was undervalued and be endeavoring to bring about an adjustment. If both of these recommendations were followed, they would tend to contradict each other.

If, on the other hand, no action had been taken in any direction until a world organization had been set up, its authority clearly recognized, and experience accumulated, there would have been time for the accumulation of new strains that might even wreck the organization.

There is no easy and sure way to meet such difficulties. It is attempted, however, in the Charter of the United Nations. An organization is brought into existence. One of the main organs of the General Assembly is the Economic and Social Council of eighteen members to be elected by the General Assembly. This Council may make or initiate studies and reports and “make recommendations . . . to the General Assembly, to the members of the United Nations, and to the specialized agencies concerned.”

The United Nations Organization is pictured in Figure 35, which shows the direct relationship as defined in the Charter between the General Assembly and the Economic and Social Council, and between

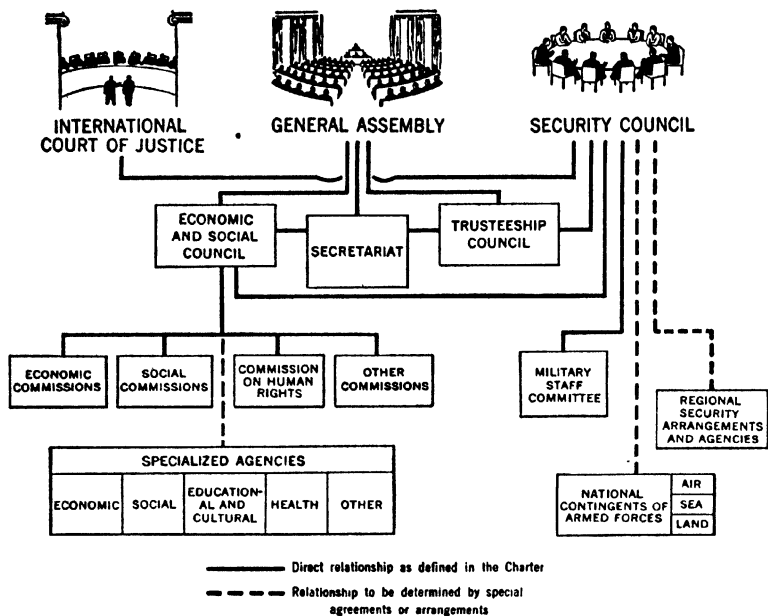


FIGURE 35. Organization of the United Nations. (From a special bulletin of the Department of State, Washington, 1946)

the latter and the four commissions and groups of commissions. Also, there is shown with a broken line the relationship between the Social and Economic Council and a number of "specialized agencies" — a relationship outlined in the following words:

ARTICLE 57

The various specialized agencies, established by intergovernmental agreement and having wide international responsibilities, as defined in their basic instruments in economics, social, cultural, educational, health and related fields, shall be brought into relationship with the United Nations in accordance with the provisions of Article 63.

ARTICLE 63

1. The Economic and Social Council may enter into agreements with any of the agencies referred to in Article 57, defining the terms on which the agency concerned shall be brought into relationship with the United Nations. Such agreements shall be subject to approval by the General Assembly.

2. It may co-ordinate the activities of the specialized agencies through consultation with and recommendations to such agencies and through recommendations to the General Assembly and to the Members of the United Nations.

Certain of these specialized agencies are already in existence, such as the International Labor Organization, the Food and Agriculture Organization, the International Monetary Fund and the International Bank for Reconstruction and Development. A number of these have already become related to the United Nations and still others are being organized.

These relationships must be defined in each case but it may be assumed that every effort will be made to do this in a manner that will co-ordinate their work closely and in accordance with general principles and policies acceptable to the General Assembly. It will be noticed, however, that under their constitutions each of the agencies exists by agreements with various nations. There are bound to be awkward problems of procedure and of adjustment, since the Charter of the United Nations and the various constitutions just mentioned all recognize national sovereignty. With time and with a spirit of good will, these matters may be cared for amicably but it would be an error to assume that no strains will appear.

There will be an abundance of problems for solution. Each would be difficult by itself but complexity is added by the fact that what is done in any given field is conditioned by what is done in another. An interesting illustration of this and of the difficulty of determining priority even in general discussions, arose some years ago when plans were being made for the London Economic Conference of 1933. Some argued that foreign trade discussions would be fruitless unless there was first adopted a workable agreement for currency stabilization. Others contended that no plan could be devised for stabilizing currencies in the absence of prior commitments on trade policies. Each was dependent on the other and both views were correct. Unhappily, neither of these matters could be settled at that time.

INTERNATIONAL INDEBTEDNESS

Almost countless difficulties will be faced by the United Nations Organization. It may be an exaggeration to talk of the "ruins of a system" but there is a vast amount of wreckage lying around. Part of the task for statesmen today is to decide to what extent

there is to be reconstruction of the old as compared with construction along new lines. Presumably there will be a mixture of the two approaches. As a result there will be a vast amount of impatience expressed by those who desire more rapid and more complete change and similar deep concern among others who fear such sharp breaks with the past.

Notice first, the vast accumulation of international indebtedness — an amount too large for payment. Twenty-five years ago it was impossible for economists to secure any important support for their contention that the similar obligations of that time could not be paid. Now there is more agreement, at least on the main issue involved, although once again feelings run high and economic realities may be ignored.

Old Debts Still on the Books. Many of the claims arising out of the First World War are still unpaid. Reparation claims against Germany, which were not definitely formulated until May, 1921, were revised by the Dawes Plan of 1924 and the Young Plan of 1929 only to be considered again at a conference held at Lausanne in 1932. It was there agreed to substitute for the old claims an obligation to pay 3,000,000,000 reichsmarks at some future date but this was made conditional upon ratification by the governments concerned and as an economic reality it was dependent also upon some adjustment of the war debts due the United States. This latter condition was recorded in a special agreement between Germany's creditors — Belgium, Great Britain, France, and Italy. No such adjustment with the United States was reached, and nominally the claims against Germany under the Young Plan of 1929 still stand. Since they will never be paid, there is no reason for repeating the amounts and they are mentioned only as a reminder that at some time and in some manner they will be written off. Already new claims against Germany have been imposed.

On November 15, 1945, the claims of the United States which have been described in earlier pages as arising out of the First World War, were still \$14,796,251,471 although the aggregate had once been reduced by the War Debt Funding Agreements of 1922 and later. This balance, it will be recalled, includes unpaid principal and accumulations of unpaid interest. These claims, too, can never be met and will presumably be canceled later or merged with other claims in some general agreement.

Lend-Lease Obligations. Before the United States formally became a belligerent in the Second World War, the Congress of the United States passed the Lend-Lease Act which was signed by the President on March 11, 1941, and was repeatedly extended.¹ It was a device with a nominal intent that was stated in its preamble as "An Act to Promote the Defense of the United States." Under its provisions large amounts of supplies and other assistance were furnished to countries which were allies of the United States after December, 1941. There were arrangements for crediting various countries with aid given to the United States and these amounts were known as "Reverse Lend-Lease." On August 21, 1945, after the surrender of Japan, the President of the United States directed the Foreign Economic Administration to take steps immediately to discontinue all lend-lease operations and to notify foreign governments receiving lend-lease of its action. About a week later, in the Twentieth Report on Lend-Lease Operations, President Harry S. Truman made the following statement:

. . . If a debt approaching the magnitude of \$42 billion were to be added to the other enormous financial obligations that foreign governments have incurred for war purposes and must necessarily incur hereafter for rehabilitation and reconstruction of their war devastated countries, it would have a disastrous effect upon our trade with the United Nations and hence upon production and employment at home. Debts of such magnitudes would drive our chief fighting partners into desperate measures like those developed before the war by the Axis for the forcing of export surpluses, in order to repay us. In a world thus overburdened with unproductive debts, the sound expansion of United States foreign trade and investments abroad would meet almost insuperable barriers. The resulting desperate international commercial rivalry would threaten political stability, and would help to sow the seeds of a new world conflagration.

The attainment of the long-range security and economic objectives of the United States and the other United Nations is a task of the greatest importance if we are not to lose the victory we have won at such tremendous sacrifices. We shall seek, under the procedure prescribed in the Lend-Lease Act and our subsequent lend-lease agreements with other countries, and through other appropriate national and international measures, to achieve settlements of our wartime lend-lease relations which will best attain these objectives, and which will thus establish the indispensable foundations of our economic well-being.

¹ See Stettinius, Jr., E. R., *Lend-Lease, Weapon for Victory*, New York, 1944, for a description of the background of this legislation and of the operation of lend-lease aid. In the appendix is a copy of the act and of the agreements under it.

This statement by President Truman is one that makes economic sense but his right to take such action is found in Section 3(b) of the Lend-Lease Act, which is:

The terms and conditions upon which any such foreign government receives any aid authorized under subsection (a) shall be those which the President deems satisfactory, and the benefit to the United States may be payment or repayment in kind or property, or any other direct or indirect benefit which the President deems satisfactory.

A large amount of discretion was left with the President of the United States who could decide both the nature and the method of repayment. This is in sharp contrast with the situation at the end of World War I. During that war advances were made from the Treasury of the United States on ordinary promises to pay and these notes were later funded into long-term obligations. The amounts involved were so large, world conditions were so intricate, and trade barriers so high that payment in full would have been quite impossible even if the debtors had been eager to settle. To those who remember the ill-will engendered by these debts the lend-lease arrangement was most welcome. While many in the United States doubtless assumed that the advances made under it would really be paid, many realized that payment would be both impossible and undesirable.

Size of Lend-Lease Claims. No final statement can be made about the settlements, since even now (August, 1946) some of the negotiations are still continuing. In his Twenty-Second Report to Congress on Lend-Lease Operations submitted on June 14, 1946, President Truman announced that as of December 31, 1945, advances to China were still being made. However, the main facts involved may be summarized.

First are the total amounts advanced. By the end of 1945 these aggregated \$49,096,125,000, of which \$46,517,298,000 had been charged to foreign governments. Nearly \$31,000,000,000 of this was against the British Empire and over \$11,000,000,000 against the U.S.S.R.

Second is the allowance for reverse lend-lease — amounts deducted because of materials and services furnished to the United States. By September 2, 1945, these deductions amounted to \$7,345,747,000, leaving a net claim of about \$42,000,000,000.

Third are the additions to these claims to cover items in transit but not yet delivered by August 21, 1945, when further lend-lease advances were discontinued.

These three groups of items may seem simple as briefly summarized but the details are numerous and intricate. Their consideration and adjustment are the task of official representatives of the United States and of each of the other governments concerned. To the difficulties presented by the three groups of data just mentioned there have been added the urgent requests from various governments for further assistance, especially in connection with reconstruction. These are in addition to the gifts for relief purposes made through the United Nations Relief and Rehabilitation Administration (UNRRA). Moreover, they are in advance of any loans that may later be made through the International Monetary Fund and the International Bank for Reconstruction and Development. It is expected that during 1947 the International Bank will assume the primary responsibility for meeting the world's international capital requirements that cannot be met by private investors on their own account and risk.

Settlement with the United Kingdom. In December, 1945, there was announced an agreement between the governments of the United States and the United Kingdom. This agreement has repeatedly been characterized as not being a precedent for adjustments with other countries but in certain particulars it indicates the general policy that is being followed. The net lend-lease claims of the United States are completely and finally settled. The net amount due the United States for deliveries made after V-J Day and on other items is set at \$650,000,000. In addition, arrangements were made and subsequently approved by the legislative bodies of the two countries for an additional credit of \$3,750,000,000 (or a total of \$4,400,000,000). The credit of \$3,750,000,000 may be drawn upon as required until December 31, 1951. Beginning on that date repayment of the amounts drawn upon is to be made in 50 annual installments with interest at the rate of 2 per cent per annum. Under specified conditions interest payments may be waived in any year. As a part of the general understanding the United Kingdom accepts in principle the views of the United States regarding the relaxation of certain of the British controls over trade and foreign exchange and the general plans set forth by the United States about the expansion of world trade and of employment.

Settlement with France. In May, 1946, also after extended negotiations, a settlement was reached with France. Lend-lease aid to that country and to her possessions was \$2,377,072,000, with reverse lend-lease aid amounting to \$867,781,000, the net claim by the United States being \$1,509,291,000.

In this settlement, as in that with the United Kingdom, lend-lease claims are cancelled. In the latter part of 1945 the Export-Import Bank had loaned \$550,000,000 to France. In May, 1946, a new line of credit of \$650,000,000 was approved. The United States allowed a credit of \$720,000,000 for the purchase of surplus property and for goods supplied to France after the end of the war. Interest is payable at 2 per cent on net amounts due beginning July 1, 1946. Beginning July 1, 1951, interest and principal will be paid in thirty equal annual installments. France endorses the general principles of freer international trade as outlined by the United States. Since the credits were granted by the Export-Import Bank and in payment for surplus property it was not necessary to secure the approval of the Congress of the United States as in the case of the \$3,750,000,000 credit to the United Kingdom.

Similar, though not identical, settlements will presumably be arranged with other countries. It will be noticed that France was granted credits by the Export-Import Bank. The lending power of that bank is limited by Congress and is now largely used. Beyond credits that may be allowed for surplus property and for similar items any large credits granted by the Government of the United States are possible only if the lending power of the Bank is increased or with the approval of Congress. To these procedures there will be many objections raised.

We may summarize the situation by noting that the United States Treasury still has claims against foreign governments of over \$14,000,000,000 arising out of the First World War and had net lend-lease claims created during the Second World War amounting to \$42,000,000,000 which are being reduced and presumably will entirely disappear. New credits are being arranged. The amounts of these credits will be limited by the value of the surplus property and other items, by the lending power of the Export-Import Bank, and by the attitude of the Congress to credits which must be referred to it for approval.

These obligations are merely the ones due to the United States Government and they do not include obligations arising out of the

participation by the United States in the International Monetary Fund and the Bank for Reconstruction and Development. Nor do they include the amounts by which citizens of the United States may become creditors of other parts of the world directly through their private purchases of foreign securities or indirectly by their purchase of debentures of the Bank.

Although the adjustments with only two countries have been outlined, there were identical lend-lease agreements with eleven other countries. Also the principles of these agreements were accepted by Australia and New Zealand, and Canada agreed to the principles set forth in Article VII.

Article VII of the agreements should be quoted in full because it shows so clearly the somewhat general provisions about repayments which we have mentioned and which are referred to as "the benefits to be provided to the United States of America." The possible effects of these repayments as a "burden" upon commerce also are indicated. The following is taken from the agreement with the United Kingdom:

In the final determination of the benefits to be provided to the United States of America by the Government of the United Kingdom in return for aid furnished under the Act of Congress of March 11, 1941, the terms and conditions thereof shall be such as not to burden commerce between the two countries, but to promote mutually advantageous economic relations between them and the betterment of world-wide economic relations. To that end, they shall include provision for agreed action by the United States of America and the United Kingdom, open to participation by all other countries of like mind, directed to the expansion, by appropriate international and domestic measures, of production, employment, and the exchange and consumption of goods, which are the material foundations of the liberty and welfare of all peoples; to the elimination of all forms of discriminatory treatment in international commerce, and to the reduction of tariffs and other trade barriers; and, in general, to the attainment of all the economic objectives set forth in the Joint Declaration made on August 12, 1941, by the President of the United States of America and the Prime Minister of the United Kingdom.

At an early convenient date, conversations shall be begun between the two Governments with a view to determining, in the light of governing economic conditions, the best means of attaining the above-stated objectives by their own agreed action and of seeking the agreed action of other like-minded Governments.

Other International Debts. Of other obligations that might be included we have only scattered information. In Chapter 28, there

was given the position of the United States for a number of years. At the end of 1939 her net creditor position, aside from war debts, was \$1,800,000,000, but on short-term account there was a debt of \$2,700,000,000. By December, 1945, the net short-term debt was \$7,200,000,000, and the total net position of the United States was that of debtor to the amount of \$2,100,000,000. Probably by now the long-term investments abroad have been considerably reduced by foreign liquidation in American markets and the short-term balances greatly increased. If a complete survey were possible, proper attention would be given to "blocked accounts" and other items on both sides. All that can be hazarded is the very general statement that long-term foreign investments by the United States other than direct investments have probably declined along with similar investments by foreigners in the United States. At the same time, short-term debts by the United States to abroad are large.

Debts of European Countries. European countries have a mass of claims and counterclaims. No complete statement will be attempted but a few items may be recorded. There were large amounts, both public and private, in existence at the outbreak of the Second World War but we shall note only a few that accumulated after 1939. Reference has been made to the disinvestment by the British, including loss of assets abroad and new foreign obligations assumed, amounting to \$21,315,000,000. Among the remaining foreign investments of the British, French, and other creditor groups, considerable amounts have presumably been lost though no exact reckoning is yet possible.

Estimates have, however, been made of the extent to which Germany utilized European resources. One method of doing so was to charge occupied countries with "occupation costs." In addition, the Germans imported goods from these countries under clearing arrangements. The total of these two methods of utilizing European resources from the middle of 1940 through September, 1944, has been estimated in Table 61. This calculation is not complete and is subject to adjustment as more data can be assembled. The total under the two headings is 124,000,000,000 reichsmarks. If we exclude the occupation costs and include only the clearing debts, the amount is 40,000,000,000 reichsmarks. Without claiming either finality or precision, we may note the addition that even the clearing claims make on Germany. There are still, it will be remembered, the reparation claims from the First World War under the Young Plan of

TABLE 61
GERMANY'S UTILIZATION OF EUROPEAN RESOURCES
(In millions of reichsmarks)

Country	Occupation costs	Clearing debts	Total
France	35,250	8,000	43,250
Holland	8,750	5,750	14,500
Belgium	5,700	5,370	11,070
Denmark	2,000	3,360	5,360
Italy	10,000	17,520	49,820
Others	22,300		
Totals	84,000	40,000	124,000

SOURCE: Assembled from data in the *Fourteenth Annual Report* of the Bank for International Settlements, Basle, Switzerland, pp. 149-163.

1929. The "occupation costs" were financed by the banks of the occupied countries, which received "the right to carry on their books as assets a claim against the Reich" or "claims against the German Clearing Institute."

Then there are the various currencies put into circulation by the Axis powers and later by the United Nations, currencies which to some extent can not be separated fully from the items just mentioned. As foreign countries were invaded, the occupying powers issued special currencies of many kinds, of which the relations to local currencies and to the home currencies of the issuer were varied and not in all cases clear.²

To summarize this mass of international indebtedness by giving totals and the net debits or credits of particular countries or areas is impossible. All that may be ventured is to say that the aggregate is huge and that the claims and counterclaims will not be disentangled easily. It may be assumed that the defeated powers will be net debtors and the leading victorious powers net creditors. Just how "creditors" can gain is another matter. There will be added to the impossible tangle of accumulated past claims still further items, among which will be costs of occupations, clearing credits, temporary relief (except as this may be in the form of outright gifts), new reparation claims, and, finally, any new loans that may be made on both long-term and short-term account. It hardly seems necessary to say that the aggregate is so huge that there must be a scaling down of the totals, at least equivalent to writing off all

² See Bloch, Henry Simon, and Hoselitz, Bert F., *The Economics of Military Occupation*, rev. ed., Chicago, Foundation Press, August, 1944.

claims held over from the period of the First World War and probably far more.

This is particularly the case when we include the trade situation that may be expected now that the war is over. For a number of years the economic organization of all countries has been adjusted to war needs. Thus every effort was made to export from the United States whatever would aid the United Nations. The results for the seven years 1939-45 are as shown in Table 62. Especially for 1945 these figures are not complete. If under exports there are added to "Lend-lease and UNRRA" a number of miscellaneous credit items and if the other amounts for that year, which were estimated, are as adjusted in July, 1946, the "Excess of exports" is \$5,322,000,000.

TABLE 62
UNITED STATES FOREIGN TRADE, 1939-45
(In millions of dollars)

	<i>Exports</i>			<i>Imports</i>	<i>Excess of exports</i>
	<i>Lend-lease and UNRRA</i>	<i>Cash</i>	<i>Total</i>		
1939		3,177	3,177	2,318	859
1940		4,021	4,021	2,625	1,796
1941	739	4,408	5,147	3,345	1,802
1942	4,891	3,144	8,035	2,742	5,293
1943	10,219	2,756	12,975	3,372	9,603
1944	10,831	3,528	14,359	3,913	10,446
1945	4,674	5,108	9,786	4,130	5,656

Lend-lease shipments have ceased, but the farms and factories of the United States are geared to a high output, much of it of a sort that can be used in peace as well as in war. Thus, in the total lend-lease advances by July 1, 1945, of over \$42,000,000,000 as officially reported, there were included \$5,906,000,000 of agricultural products and more than \$8,657,000,000 of industrial products and materials aside from munitions. To contract productive facilities or to develop adequate domestic markets for such an output will not be easy. Producers will be tempted to continue exports and on credit terms that they might not consider if domestic demand were adequate.

This tendency may be all the stronger because of the accumulation of funds seeking investment. This may be illustrated by emphasizing our "propensity to save." Assuming, purely for illustration, an annual national income in the United States of \$150,000,000,000, there may be as much as \$30,000,000,000 per year seeking invest-

ment. Since the opportunities for domestic private investment can not well be expected to be nearly so large as this, there are two other alternatives. One is for the federal, state, and local governments to sell their securities and use the funds thus raised for public improvements. The other is for private or public agencies or both to purchase foreign obligations. To the extent that the latter procedure is followed, governments and corporations abroad will have dollars made available to them. With these dollars they can meet claims accumulated in the past and purchase United States exports. To the extent that they purchase exports they stimulate United States production, which has been geared to an export market and will find adjustment to sales solely in the domestic market extremely difficult and in some lines probably impossible.

In so far as amounts have been inserted they are merely illustrative. If the national income of the United States should be larger or smaller than suggested, the amounts available for investment should be altered. Also the "propensity to save" may not remain the same as time passes. But the amount of the national income has in the past fluctuated directly with imports and industrial production, and imports have fluctuated directly with exports. The same tendencies may be expected in the future. The smaller the national income, the smaller the volume of such funds. What is true of the United States may shortly be true elsewhere. We have spoken of the generally held British view that their exports may need to be 75 per cent greater than in 1939. As physical reconstruction is complete in western Europe there will presumably be a tendency to resume foreign investing.

STERLING DEBTS

During the Second World War the position of the United Kingdom has been greatly altered. In the previous chapter official but provisional estimates were given. Formerly a creditor, the United Kingdom is for the present a debtor area. Lend-lease claims have been cancelled but there was still a gross external liability on June 30, 1945, of \$13,525,000,000. Of this \$10,975,000,000 was to countries in the "sterling area." During the war, many shipments were made to the United Kingdom (in addition to lend-lease) notably from Burma, India, and the Middle East.

Sometimes these sterling debts have been referred to as "blocked sterling" but we may avoid the term as perhaps objectionable.

No matter what designation is applied, these debts are an addition to the intricate total of impossibly large claims of some areas of the world against others.

NEW REPARATION CLAIMS

Next are the reparation claims against the defeated countries. When Rumania and Finland surrendered to the Soviet Union, the armistice terms provided that each of these countries should pay in kind a total of \$300,000,000 during the ensuing six years but specified that the payments should be "in kind" rather than "in cash." At the time of writing there is no statement about claims against Japan but in the Potsdam Declaration made public on August 3, 1945, the obligations imposed on Germany were stated. These are so important that they are reproduced in full in the Appendix.

A careful reading of this declaration indicates that there was an attempt being made to avoid the difficulties experienced after the First World War. Instead of specifying a cash amount or even proposing that such an amount would be determined later (the procedure followed in 1919), there was the decision "that Germany be compelled to compensate to the greatest possible extent for the loss and suffering that she has caused to the United Nations and for which the German people cannot escape responsibility."

This was a tacit recognition that complete reparation for losses is not anticipated but that compensation is to be made to the greatest possible extent. It is in sharp contrast to an earlier semiofficial statement of the claim of the Soviet Union against the aggressors for material damages and for personal damages including pensions for ex-combatants and to civilians. The total was given as from 800,000,000,000 to 1,000,000,000,000 gold rubles, or from \$160,000,000,000 to \$200,000,000,000. On August 1, 1945, it was announced that a special war damages commission had estimated that the cost to France of the German occupation had been almost \$98,000,000,000.

Such figures as these were presumably made public in order to impress the world with the extent of the damage caused and for bargaining purposes when later the totals were determined and the divisions made among the claimants. They are mentioned here only to emphasize the impossibility of exacting full compensation. This is evident if it is assumed that the national income of Germany in the years just ahead will be \$18,000,000,000 per annum, which is

the estimate for 1938. It would take literally all of this for a period of nine to eleven years to meet only the semiofficial claims of the Soviet Union, if absolutely nothing were left to support the Germans themselves. If 10 per cent of the German national income were taken each year, the time needed would be from ninety to a hundred years with no allowance for interest on unpaid balances. Fortunately, no such claims are advanced.

Payments as stated are to be made "in kind" by the delivery of usable and complete industrial and capital equipment that is unnecessary for the German peace economy and from appropriate German external assets, some of the latter presumably being cash. The amount of equipment thus removed was to be determined within six months at the latest, namely, by February 3, 1946. The total was left unstated but was to be settled by a Control Council under policies fixed by the Allied Commission on Reparations with the participation of France, subject to the approval of the zone commander in the zone from which the equipment is to be removed. It is not to be equipment necessary for the German peace economy, and there was to be no long period of uncertainty.

Division of what is taken is by zones. The U.S.S.R. is to receive equipment from its zone of occupation, while the claims of the United States, the United Kingdom, and other countries entitled to reparations shall be met from the western zones. In addition to what it receives from its own zone, the U.S.S.R. is to have 25 per cent of what is taken from the western zones. Ten per cent of this is to be taken without restitution of any kind to Germany but for the other 15 per cent, the U.S.S.R. will furnish Germany with an equivalent value of specified commodities.

The U.S.S.R. renounces claims in respect to reparations to shares of German enterprises in the western zones and to German foreign assets except in Bulgaria, Finland, Hungary, Rumania, and eastern Austria and makes no claim to gold captured by the Allied troops in Germany. The United Kingdom and the United States reciprocate by renouncing corresponding claims in the eastern zone and to German foreign assets in the countries named. It should be noted that other possible claimants are not mentioned in this connection although elsewhere the U.S.S.R. undertakes to settle the claims of Poland from its own share.

Earlier it was pointed out that war is fought primarily out of current income. Payment of reparations, if made over a long period

of time, would similarly have to come out of income. The Potsdam Declaration, however, contemplates collections in the form of existing industrial equipment and further contemplates a prompt decision on amounts and early deliveries. That this is better than the decisions made after the First World War seems clear.

Also, it should be noted that there is no apparent intent to "agriculturalize" Germany, as some have urged. The wisdom of this is apparent if we note that it is proposed to cede large parts of former German territory to the Soviet Union and to Poland and to move Germans from Poland, Czechoslovakia, and Hungary back to Germany. These millions of persons will add to the superficial density of population in Germany and can be maintained even at a level of living as high as that of other European countries only if there is some degree of industrialization. Another glance at Table 9 in the Appendix will make this clear. Moreover, the Declaration does not announce that de-industrialization is contemplated. The emphasis is on "the complete disarmament and demilitarization of Germany and the elimination or control of all German industry that could be used for military production." Another passage states that "primary emphasis shall be given to the development of agriculture and peaceful domestic industries."

It would be rash to speak too confidently of the future but it can be said that the Declaration does not contemplate the impoverishment of Germany nor a long-drawn-out period of uncertainty. Instead, there is proposed a prompt determination of what is to be delivered as reparations and a statement of how these amounts are to be divided between the Soviet Union on the one side and the United Kingdom and the United States on the other. What the division will be between the U.S.S.R. and Poland is not stated, nor is anything said about the division between the United Kingdom, the United States, and other countries that may have claims. There are still many matters left open to adjustment. There is, for example, nothing in the Declaration about the use of German laborers in reconstructing property destroyed outside Germany by German military action, although there have been many rumors that such use was favored and that it has already been extensively employed in the Soviet Union.

The immediately preceding paragraphs have been chiefly in the present tense, referring to the provisions of the Potsdam Declaration of August, 1945. Much has happened since that date. At the time of

writing (August, 1946) the Declaration is still the official basis of action, but as was to be expected there have been many disputes over its application and there is much uncertainty. The impossibility of collecting enough to cover the losses of the victorious powers is recognized and gradually the claims are being adjusted to the realities. After prolonged negotiations, some of the German assets in Switzerland and in Sweden have been surrendered and negotiations with other neutral countries are in progress.

NEW FOREIGN LOANS

It is contended that there will be many parts of the world which will desire to borrow when the war ends. Such loans fall roughly into two groups: (1) for reconstruction; (2) for industrial development. The borderline is not a clear one but the distinction is important.

Reconstruction Loans. It would be unfortunate if anything said in preceding paragraphs should seem to minimize unfairly the destruction caused by the war. It has been appalling and tremendous effort and expense will be involved in rebuilding. All that has been urged is that the dislocations caused by the war are even more serious than the outright destruction.

Destruction in some countries, notably in the Netherlands, Belgium, France, and the United Kingdom, has been in areas where per capita incomes are relatively high. Also, these are areas which have in the past made heavy loans to the newer parts of the world. They have been creditor areas. If we get behind what may be termed the "money façade," the facilities needed for reconstruction are labor power, certain raw materials, and the requisite tools and machines. Labor will be provided within each area as will also many materials such as coal. To some extent, other materials and some machinery will be needed from the outside. Also, as emphasized in our discussion of capital movements, there will be an importation of outside capital, even if the imports are consumption goods for the sustenance of people who are diverting their efforts to the construction of productive equipment.

Many of these requirements are for short-term advances — for working capital. The people of the countries named are numerous, intelligent, and thrifty. Assuming conditions that warrant loans (as distinct from gifts), they should not be on a long-term basis. If the past is any guide, restoration will be completed within only a few years, national incomes will rise, and the people of these areas

will soon be lending to other parts of the world. Whether the assumptions are correct is another matter. The economic dislocations now being faced are far more serious than those of twenty-five years ago, while political stability is far from certain.

To this general observation exceptions have already appeared in the credits to the United Kingdom and to France which have been summarized above. They indicate that political and even economic considerations may make impossible, or at least inadvisable, the rigid application of any formula that may be devised. Repayments of the credits to these two countries are to be made through fifty and thirty years respectively, although both of them have in the past been creditor areas. Their economic position may be relatively or perhaps absolutely weaker than it was only a few decades ago, but they are industrialized and have high productive capacity. If the funds arranged for were to be used only as working capital in the ordinary and somewhat limited sense, earlier repayment would have seemed appropriate. Actually the funds are needed as an aid, not merely for economic reconstruction, but to assist in removing economic dislocations.

A few words should be added about basic difficulties which are the same as those faced after the First World War. Two points may be emphasized. One is that large sums can be collected from Germany and the other defeated countries only if their national incomes are sufficiently large and if some of their production is of goods that can be sold abroad. If this were to be the sole guide to their treatment they should not be denuded of equipment and should be given the largest possible assistance in adding to their productive capacity, particularly of goods for export. To the extent that their factories are dismantled, capacity to pay reparations is diminished.

A second consideration is that the capacity of the defeated countries to prepare for another war is to be curtailed or eliminated. This is one of the reasons for dismantling German factories, the other being that the machinery thus taken may itself be a reparation payment. But there is no easy way of drawing a sharp line of distinction between plants that may be used only for a peace economy and those that may be used for a war economy. Also the present division of Germany into four zones of occupation is hampering the restoration of production, another illustration of the effect of dislocations as distinct from the task of physical reconstruction. It is not impossible that for years to come there will be friction and delay as there was

after the First World War. Also there are to be added the claims advanced against Italy and other countries.

Loans for Industrialization. The period in which only a few areas were industrialized and furnished manufactured products to others may not be ended but the position of such areas is relatively weaker than a few decades ago. Light industries, such as textile manufacturing, are developing nearer the sources of raw materials, a trend that seems to be gaining momentum, and in some regions not previously industrialized even iron and steel production are being encouraged. This will presumably increase rather than diminish interregional trade but it will force many painful adjustments in the older countries.

For these developments loans will be expected. To some extent, purchases will be made out of funds accumulated and in some cases temporarily blocked in London and in New York but doubtless new securities will be offered. There is every sign that some of the would-be borrowers have exaggerated ideas about the amounts they will be able to secure and there will probably be a period of disillusionment.

OSSA ON PELION

Ossa is being piled on Pelion. No matter how we may speculate about a world in which there will be no uncertainties, we can not rely upon the disappearance of all friction nor even say that we are sure there will not be another world war. But even if the most optimistic view is taken, the mass of outstanding indebtedness is far in excess of what can be effectively managed. Obligations of the past plus those accumulated during the Second World War plus new reparation claims plus new short-term and long-term loans contemplated for the immediate postwar period, give an aggregate too large for support in the calculable future. Particular investments may be satisfactory when scrutinized separately, but, taken as a whole, there are vast areas where servicing is impossible even in local currencies. To find foreign exchange in sufficient quantities, for example, in the dollars and the pounds which will satisfy creditors, will be quite out of the question. If some obligations are met, others will of necessity be defaulted.

Not so long ago it was commonly held that the creditor is in a strong position vis-à-vis the debtor. Events of the last ten or fifteen years have made it clear that this may not be the case. If the foreign

debtor simply does not remit, there may be little or nothing that can be done by the creditor. No matter what may have been the basic reason for the occupation of the Ruhr valley in 1923, reparation payments were not assured by the application of force. Some political or other purpose may have been attained but debts were not collected. Other illustrations might be added. Even if it be acknowledged, in particular cases, that debtors were able to remit but unwilling to do so, there is an aggregate so large that servicing may be entirely out of the question even if the debtor is eager to arrange it.

Scaling Down the Debts. No one is competent to forecast where all of the losses will fall nor to advise in any detail what adjustments should be made at once or in the near future. Investment analysis is a highly technical and intricate field. Nevertheless, it is possible to indicate a few steps that should be taken even if what is proposed is not adequate. First in the list is the financial indebtedness arising out of the First World War. This includes the more than \$14,000,000,000 due from seventeen governments to the Treasury of the United States and the corresponding claims of the British and other governments. It includes the reparation claims against Germany to which she is still technically obligated under the Young Plan of 1929. It may be that this reduction should be brought about by merging these claims with later ones in some general adjustment, but the amount of the total obligation (or better, the annual servicing) should be lowered to an equivalent extent.

Fortunately the United States has acted promptly and with economic and political wisdom in connection with lend-lease claims. These have been adjusted or are in process of adjustment. Ignoring the political or moral aspects the amounts were too large for servicing and any payments made on this account would merely have lessened the dollar exchange available for meeting other obligations about which there can be less controversy.

New Claims for Reparations. What is said of debts past and current is true of new claims. There should be a clear realization that large amounts can not be collected from a debtor with a weak economy: a choice must be made. This having been done, the amounts imposed, whether they are to be paid in cash or in kind, should be as nearly as possible adjusted first, to the debtor's capacity to develop an export balance of international payments in directions that will directly or indirectly furnish the required amount of acceptable

foreign exchange, and second, to the willingness of the creditors to receive the payments. This seems to have been kept in mind in the drafting of the Potsdam Declaration.

New Loans. There are many rumors more or less authenticated regarding the desires in many areas for new loans to be secured from those countries able to make such advances. These countries are primarily Great Britain and the United States and for the present the latter is the chief or only source. Any loans that are made should be divided, as fully as confused conditions permit, into short-term and long-term. Working capital should be provided on a short-time basis. Both long-term and short-term loans should be directly or indirectly for productive purposes, by which we mean productive of the currency of the lending country, not merely of the local currency of the debtor.

This is in apparent contradiction to the contention in an earlier chapter that debts, at least in the past, have not been paid and perhaps need not be. If the funds are wisely invested and if political and economic conditions are satisfactory, creditors as a group may be content not merely to leave their funds abroad but even to increase their foreign investments. As yet, such an ideal situation is not probable. If the suggested precautions are not observed, crises like that of 1929 may be anticipated.

Another warning that may be recorded is that the rate of such advances should not be too rapid. If there is a rush of new borrowing (either from governmental or private sources), there is a probability of unwise and unproductive use of borrowed funds and greater chance of later defaults. Also, time is needed in borrowing areas for internal economic and social adjustments as efforts are made to shift the location and habits of large numbers of people who are changing, for example, from agricultural to industrial occupations.

THE INTERNATIONAL MONETARY FUND AND THE INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

Now that the Charter of the United Nations has been drafted and the organization which it provides has been set up, we are entitled merely to say "So far, so good." Perhaps the League of Nations failed but it may be that no organization of any kind could have succeeded at the time it was functioning. In any case, we now have another approach with its Charter instead of the League with its Covenant.

Whether it should be called federal depends on the meaning of that word. If a federal organization is one in which the members specifically surrender some of their sovereignty, the answer must be in the negative for the first Principle enunciated in Article 2 is that: "The Organization is based on the principle of the sovereign equality of all of its Members." Sovereignty is not formally surrendered. But no matter what the legal concept, the members are not, in fact, equal in size, in numbers of people, in natural resources, or in many other ways. Also, each country accepts some qualification over its right to do as it pleases in every treaty or other agreement into which it enters. In many matters a formal surrender of sovereignty is less important than the fact. Regardless of assertions to the contrary, sovereignty is being more and more limited, *de facto* even when not *de jure*, and such limitations can not be avoided.

FOREIGN EXCHANGE AND FOREIGN INVESTMENT

Among the agencies that are to be brought into relation with the Economic and Social Council are two that were under discussion for a number of years. The various proposals were given wide publicity, particularly the so-called White and Keynes plans from the United States and Great Britain, respectively. In the light of criticism and because of the necessity for the compromise of conflicting views, no one of the plans was adopted in toto, but at a United

Nations conference at Bretton Woods, New Hampshire, in July, 1944, articles of agreement were drafted and submitted for consideration by the participating governments.

We need not review the ensuing controversy more than to observe that there was little or no objection to the proposed International Bank for Reconstruction and Development. Nor was there much said against the importance of the tasks assigned to the International Monetary Fund. An influential body of opinion held that the two organizations should have been merged into one and there were other criticisms. The Congress of the United States passed an act approving the participation of the United States in both and this was approved by the President on July 31, 1945. The Bretton Woods agreements became effective on December 27, 1945, when representatives of twenty-eight nations (who represented more than those "whose minimum subscriptions comprise not less than sixty-five per cent of the total subscriptions set forth" as called for in attached schedules) confirmed the ratification of their governments.

There are two institutions and for convenience they will be referred to as the Fund and the Bank. Both assume that the interests of all countries will be furthered by multilateral rather than by unilateral actions. The Fund has to do with measures designed to maintain or to restore current equilibriums in the various balances of international payments, while the Bank is to concern itself with investments. Also, both are designed to deal with long-run rather than with immediate postwar relations. Both expect to operate in 1947.

THE INTERNATIONAL MONETARY FUND

It may be well to restate briefly the difficulties created by fluctuating foreign exchange quotations. Purchases and sales abroad are hampered unless business men can know within rather close limits the prices in their own currencies at which they can buy or sell drafts. Some of these uncertainties were greatly reduced by the gold exchange standard but this device has been inadequate. While any arrangement or system would presumably collapse during a world war, even prior to 1939 conditions were little short of chaotic. A number of countries took unilateral actions that complicated matters for others. Each of the stabilization funds was designed primarily for the advantage of its own country. The Tripartite Agreement was of some assistance but it was not sufficient.

So long as the disturbances were relatively minor and so long as "the rules of the game" were observed, exchange quotations fluctuated within quite narrow limits such as the "gold points." But these rules were never completely followed and have been increasingly abandoned. For a time the general purpose of responsible officials and bankers was to moderate internal price fluctuations but this somewhat limited approach is now being broadened. Instead of relying on a fairly steady price level as the chief or perhaps sole aid to domestic productivity, we are hearing more and more about "full employment." At times this expression refers merely to the full employment of only one factor — labor — but it frequently is broadened to include all the factors — labor, natural resources, and capital equipment. There are many difficulties in giving precision to the idea but it is clear (1) that the productive factors are often not fully employed, and (2) that full or more nearly full employment in each country will be of assistance in securing the same result in others. However, any one country in its anxiety to have full employment (or for other reasons) may attempt to increase its exports and decrease its imports by an external depreciation of its currency, or take the reverse action to decrease exports and increase imports. In fact, there may at times be such a degree of overvaluation or of undervaluation as to make such a change generally desirable. Nevertheless, the endeavors of more and more countries to insulate themselves against external disturbances which they can not control may lead to a renewal of the "competitive depreciations" of only a few years ago, or there may, for similar reasons, be unilateral appreciation as in July, 1946, by Canada (10 per cent) and by Sweden (14 per cent).

Finally, by way of introduction, it should be noted that so long as "sovereignty" is retained as a basic concept, each sovereign country may act as it pleases regarding the "value" of its money. Moreover, it is quite sure to do so and there seems to be no satisfactory approach except through an international agency.

It is contemplated that eventually all forty-four of the United Nations will become members. The Fund will be under the direction of a Board of Governors — one from each country, with twelve to fourteen executive directors of whom one will be named by each of five leading powers — the United States, the United Kingdom, the U.S.S.R., China, and France. Resources are to be furnished by the members in agreed amounts, as shown in Figure 36, and voting

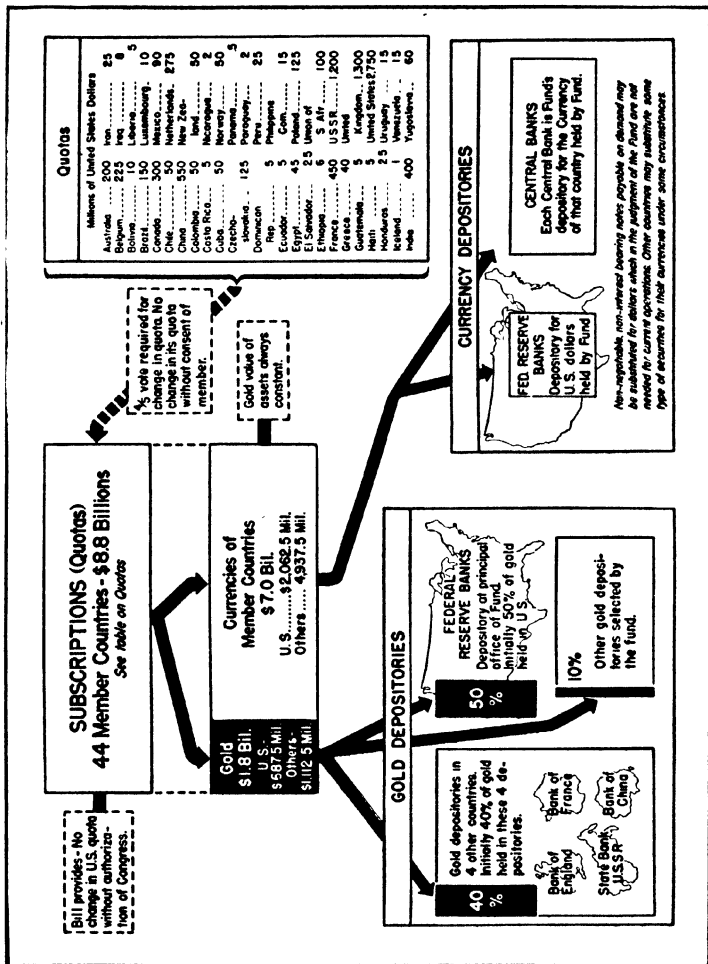


FIGURE 36. International Monetary Fund — Resources. (From *Charts Relating to the Bretton Woods Proposals*, United States Treasury, April, 1945)

power in the Board of Governors is based primarily on these subscriptions. Figures 9 through 12 in the Appendix give more details of organization and operation. Altogether, the members are to subscribe to the amount of \$8,800,000,000. Each member is to pay in gold either 25 per cent of its quota or 10 per cent of its net official holdings of gold and United States dollars, whichever is the smaller. The balance of each quota is to be paid in the currency of the member country. As indicated in Figure 36, the United States will contribute \$687,500,000 in gold and \$2,062,500,000 in United States currency, or a total of \$2,750,000,000 of the aggregate subscriptions of \$8,800,000,000. Other large subscribers in order are the United Kingdom, the U.S.S.R., China, France, and India.

These funds are to be used for the general purposes set forth in the agreement, which are, summarized: (1) to promote international monetary co-operation, (2) to facilitate the balanced expansion and growth of international trade, (3) to promote exchange stability, (4) to assist in the establishment of a system of multilateral payments, (5) to give confidence to members, and (6) to shorten the duration and lessen the degree of disequilibrium in the balances of international payments of members. It is not contemplated that there will never be changes in the values of the various national currencies in terms of other currencies but that such changes are to be made only after consultation with the Fund and to correct a fundamental disequilibrium. The provisions for consultation and for making changes are complex and technical, so much so that they have been sharply criticised as unduly involved. One explanation is that the agreement was necessarily a compromise between contradictory national viewpoints.

Position of the United States. In the Fund organization and management (and as will be noted later, in the Bank), the United States is in a special position. The size of that country, its large national income, and the lack of destruction in that country during the war, plus its large holdings of gold, were determining considerations. The subscription by that country is over 31 per cent of the total, which has led to the criticism that it is making the largest contribution and incurring the greatest risk of loss. In reply, it may be said that this would be true with or without the Fund, as was the case after the First World War and is even more true after the Second. There is no escaping the responsibilities that accompany size and riches in an interdependent world.

The Place of Gold. No one can with confidence forecast the role of gold in the more distant future. For some years it has been under attack, and supporters of the "gold standard" or of a return to it in its old form have been roundly criticised. In recent years, its importance in domestic affairs has been diminishing as currencies have been increasingly "managed." Yet banks, especially central banks, still use it as an "international reserve," even though they endeavor with considerable success to prevent imports and exports of it from affecting internal business. In the Fund the gold standard is retained as a base in that the "gold value of the Fund's assets shall be maintained" and that the "par value of the currency of each member shall be expressed in terms of the United States dollar of the weight and fineness in effect on July 1, 1944."

Tasks of the Fund. The management of the Fund will have a most difficult task in carrying out the purposes listed in a preceding paragraph. "Exchange stability" and other expressions are superficially simple. Only a little thought, however, reveals the complexities. First is the task of deciding the appropriate value of each currency, which should not be undervalued or overvalued. Preliminary and somewhat ad hoc relations for some had to be established because of the necessity for carrying on transactions with something as a basis even though for only a short time. Illustrations were the French franc (2 cents) and the Italian lira (1 cent). But such values may be "too high" or "too low," and the Fund will have the task of doing what it can with a wise use of its resources either to maintain these rates or to determine new ones, unless, of course, changes are made before the Fund begins operating. Presumably the removal of exchange controls will be encouraged with a view to letting currencies find their "natural levels." But what should be the new rate, for the franc and for the lira as referred to? What should be the future rate between the pound and the dollar, when the pound has for years been controlled at about \$4.00? Whatever rate is agreed upon will influence the flow of trade in one direction or the other. Errors may be made and further changes will be necessary. In fact the franc and lira values just stated have already been altered as have the Canadian and Swedish.

The pound and the dollar are "key currencies" because they are used so much more than others and an appropriate adjustment between them is particularly important. But there are numerous others, such as the Chinese. Examine again Figure 33, showing the

fluctuation of prices in a number of countries. In some of them, new monetary units (perhaps with new names) will probably be introduced. In every case the effect of the new exchange rate will be profound, immediately in the country concerned and indirectly in all countries doing business with it.

Then there is the expression "fundamental disequilibrium." A disequilibrium in the balance of payments of a country may be caused by temporary influences. Under such conditions the management of the Fund may and should give temporary assistance. The gold and other assets in the Fund have been subscribed for that very purpose. If, for example, there is a demand in Ruritania for United States dollars because of a crop failure or for some other reason of a transitory nature, that country may with its own currency purchase dollars from the Fund up to 25 per cent of its quota during a twelve-month period and not in excess of 200 per cent of its quota, and so on. Charges are made at a progressive scale of rates varying with the duration of the loan and with its amount.

Temporary assistance within elastic limits is thus contemplated, to be furnished from a fund which has been provided by all of the members. The purpose is to make it unnecessary for any country to alter the gold value of its currency unless the disequilibrium is fundamental. Whatever gold value is set for a given currency may prove to be too low or too high. If this is clearly the case, then the Fund may assent to a change up or down.

To determine whether a disequilibrium is temporary or fundamental will not be easy. For years many currencies have been "pegged," and even in those cases where new pars have been set, the actions taken have been merely an expression of the best judgment of responsible government officials and may have to be altered. What seems to be an equilibrium rate may be maintained by unduly large shipments of gold which can not be continued indefinitely; or by heavy and perhaps unwise borrowings abroad either on long-term or on short-term; or by restrictions on imports, which, if continued, would be to the serious detriment of the importing country.¹ Or there may be domestic policies of many kinds of which the effect would be to undermine the strength of a currency. There is no simple formula that can be used. Instead, there must be the exercise of broad judgment. It may be, for example, that the pressure on a

¹ See Nurkse, Ragnar, *Conditions of International Monetary Equilibrium*, Essays in International Finance No. 4, Princeton, N. J., Princeton University Press, Spring, 1945.

currency could properly be relieved by a loan from some other country.

THE INTERNATIONAL BANK FOR RECONSTRUCTION
AND DEVELOPMENT

The Bank is organized to assist in the reconstruction and development of territories of members; to promote private foreign investments by guarantees or participations; to promote the long-range balanced growth of international trade; to arrange the loans made or guaranteed with a view to securing priority for useful or urgent projects; and to operate with due regard to the effect of international investment on business conditions, including a smooth transition from a wartime to a peacetime economy.

Like the Fund, the Bank secures its resources from the states of the United Nations, the amounts subscribed and paid in being shown in Figure 37.² The authorized capital is \$10,000,000,000, of which \$9,100,000,000 is allocated for subscription by the forty-four members of the United Nations. Each country is to pay in 10 per cent of its subscription, the balance to be provided to the extent needed. Of the amount paid in, one fifth will be in gold and four fifths in currency. The subscription by the United States is \$3,175,000,000, followed in order of amounts by the United Kingdom, the U.S.S.R., China, France, and Canada. The capital thus furnished will be used for making direct loans to the extent that such loans seem advisable and for meeting any losses on loans that are guaranteed.

Each member shall deal with the Bank only through its treasury, central bank, stabilization fund, or other fiscal agency, a provision that is true also of the Fund. It is not contemplated that the Bank itself shall engage extensively in direct loans but that it shall, as proves desirable, guarantee the servicing of loans privately made, receiving a commission from the borrower for the assumption of this risk. Loans made or guaranteed by the Bank shall, except in special circumstances, be for the purpose of specific projects of reconstruction or development.

Neither the Fund nor the Bank can operate without reference to the other. A disequilibrium in a currency may be corrected by a loan guaranteed or made by the Bank. A loan made by the Bank

² Figures 13 and 14 in the Appendix also illustrate the organization and operation of the Bank.

may be affected by the action of the Fund in altering the value of a currency. This interdependence was the reason why some critics insisted that there should be only one organization, the Bank to have a section or division to perform the functions assigned to the Fund. There are, however, to be two institutions and the Congress of the United States has met the difficulty by prescribing in its act of approval that the same personnel shall represent the United States on both governing boards.

SOME OBSERVATIONS ON THE FUND AND THE BANK

Those who desire a more detailed account of these two institutions are referred to the voluminous special literature. There may be added here only a few general observations.

Private Enterprise. There has been a considerable swing to the left during recent years, one of the latest indications being the victory of the Labour party in Great Britain in 1945. Nevertheless, the Fund and the Bank place the emphasis on "private enterprise." Foreign exchange transactions are to continue largely through private purchases and sales as in the past. But since appreciation and depreciation of currencies have widespread effects, and since changes in the external value of currencies are bound to be made by governmental action if deemed to be in the national interest, there is to be an organized approach with changes made only if generally agreed to. Likewise, foreign lending is still thought of as a private business activity, with the Bank merely guaranteeing approved loans in those cases where guarantees will be helpful and making direct loans only to supplement private loans. There is still emphasis on private transactions.

The Public Interest. It is, however, recognized that the "invisible hand" may not always be a satisfactory guide, and that the doctrine of economic harmony can not be fully relied upon. Perhaps the world experience of lavish and in some cases even reckless private international loans just after the First World War is the best illustration of the widespread harm that may be done in the absence of centralized supervision of some kind. Also, the events of the decade just preceding the Second World War have indicated the serious consequences throughout the entire world of unilateral currency actions. As in domestic affairs, for example, in the United States, which is thought of as the most "capitalistic" country in the world, more and more government controls have been intro-

duced, we are finding that in the world as a whole the actions of one or several countries may have a profound effect on the other. The approach being attempted is to substitute at least a minimum of general oversight.

Long-run Problems. The end of the war has brought the world face to face with both short-run and long-run issues in the field of finance as well as in all other economic matters. Both destruction and dislocations call for decisions of some kind if we desire the resumption of production and distribution as in the past, and even more thorough-going analysis and action if we wish to expand the incomes of particular countries and of the world as a whole. It is well to keep constantly in mind that basically our concern is with the size and steadiness of the income stream and that political and economic action on any matter has repercussions in all directions.

The Fund. Both the Fund and the Bank are designed to deal, not with issues raised by the transition from war to peace, but with those which follow and are long-run. But the two are by no means distinct. Before the Fund can be organized and begin its operations much will have occurred. In many countries, efforts will have been made to check internal inflation and to stabilize the external values of currencies. There will be varying degrees of success, for with the best of intentions among highly qualified experts, wrong decisions will have been reached. This will be especially the case because what seems to be a suitable new rate for any one currency, for example, the guilder or the zloty in terms of pounds, francs, or lire, may prove unsatisfactory as these other currencies are adjusted. Each is related to all the others, and, in the immediate postwar period, bilateral rather than multilateral negotiations will doubtless be common. This will leave to the Fund a large number of questions arising out of short-run decisions. Moreover, if the Fund begins to operate promptly, it can not well avoid some participation in what may later prove to be short-run or transitional matters.

Then, too, the Fund will be affected in one way or another by the adjustments made by the cessation of lend-lease arrangements. Thus the nature and amount of credits arranged in the United States by representatives of other countries will determine the supply of dollars and the later demand for dollars which will in turn have an effect of some kind on the external value of the dollar.

Looking further into the future there are such related matters as (1) the amount of long-term foreign loans made privately (with

or without the guarantee of the Bank), as well as direct loans made by the Bank itself and by such other agencies as the Export-Import Bank of the United States; (2) the agreements reached at the prospective United Nations conference on international trade and the extent to which they are actually carried out; (3) the attitude of owners of these foreign investments who may easily become nervous and attempt the impossible task of attempting to repatriate their funds without loss; (4) the indirect strain on the foreign exchanges arising from the operations of the United Nations Relief and Rehabilitation Administration; (5) the size and distribution of world shipping, especially that of the United States — and so on.

Such intricacies as these have led some critics to allege that the Fund can at the best merely treat symptoms and that its organization should have been postponed until other decisions were reached, particularly decisions about the easing of barriers to trade. As previously pointed out, the logical order of action is not easily determined and what is done in one direction affects everything else. In any event, it was possible politically to reach first a decision about the Fund and the Bank, and we are faced with a *fait accompli*.

The Bank. Even more harassing, if possible, are the problems to be solved by the Bank. Like the Fund, it will be affected by many decisions made in other directions including those by the Fund. The level at which the pound-dollar rate is set will affect the flow of trade and influence the amount of short-term or long-term advances that may be needed for stability. The same may be said of exchange rates in all other directions. What is done at the United Nations conference on international trade will affect greatly the volume of loans that may be asked.

But the Bank like the Fund is designed to meet long-run rather than transition difficulties. Political decisions regarding national boundaries and the extent to which "imperialistic policies" persist will have much to do with the safety of a foreign loan. Whether a particular loan should be made will often turn on the political stability in the borrowing country and even, though perhaps to a less degree, on political attitudes and public psychology in the lending country.

Strictly economic as distinct from political and other considerations are baffling in themselves. The loans guaranteed (or made) will be affected by strictly private advances in which the Bank is not involved, but of which the nature and the amount will certainly

be of importance in Bank decisions, since their servicing will create a demand for foreign exchange and leave a smaller supply, for example, of dollars or of pounds, for loans guaranteed (or made) by the Bank. In the past, it has been difficult or impossible to know, except in the most general way, the facts about capital flight, direct investments, and so on.

Then what is a productive loan? This has previously been discussed and we need merely repeat that it may be productive merely in the currency of the borrower and not in the currency of the lender. It may be directly or indirectly productive of foreign exchange. So long as there is a fair amount of political and economic stability, actual servicing to the extent that there is a balance of exchange literally used for paying interest and amortizing the principal may be unimportant. At any rate in the past there has been a disposition on the part of investors (as a class if not always as individuals) to reinvest interest and even to add to principal and not really attempt to collect unless they are fearful that they can not do so. Then there is to be considered the aggregate capacity of the borrowing area to meet the aggregate claims against it.

Some Other Considerations. We must return to what was said earlier about the demand for capital. This is in the first instance a demand for funds; these funds are placed at the disposal of the borrower in the form of bank balances in the lending country or in some other country, either for the purchase of instrumental capital or for consumption goods for use in the borrowing country, where the people are thus able to use their local productive factors for capital construction. The immediate effect may be an export of consumption goods from lender to borrower.

This may be elaborated. A borrowing area may wish to reconstruct destroyed properties. Rebuilding is accomplished by laborers using raw materials with the aid of capital (tools and machinery) under the guidance of management. When a loan is made for such a purpose it is not ordinarily contemplated that the factors used will literally be exported by the lender. Laborers in the borrowing country will do the work. In many countries, there is an abundance of coal, iron ore, building stone, and other materials. Heavy machinery must be produced locally with the labor and raw materials at hand. Some tools and light machines may be imported and perhaps other items such as prefabricated houses. But many areas, such as central and western Europe, will need or at least want working

capital of particular kinds, among the most important of which will be miscellaneous consumption goods. Since the effects of lending are of this sort and so indirect, there is always the possibility that the actual imports of the borrower may be in part luxuries rather than the items usually thought of when loans are discussed.

Clearing the Way for the Bank. In Chapter 36, the basic importance of clearing away in some manner the mass of international obligations now outstanding was pointed out. At the time of writing, no action has been taken on the "political" debts nor on the reparation claims against Germany, which still stand at the amount determined by the Young Plan of 1929. Both of these, as well as miscellaneous other obligations, are a heritage of the First World War. The United States has announced the general cancellation of the lend-lease claims accumulated during the Second World War but there still exist a mass of claims against the Axis countries arising out of occupation costs, claims which are in the form of German marks or blocked balances in the Reichsbank as well as occupation currencies of various kinds. Finally, there are the reparation claims arising out of the Second World War, which as yet can be stated only in a fragmentary way.

It seems to be the case that, in times of economic and political stability funds loaned abroad are allowed to remain there and even to increase. It also seems clear that attempts to collect are apt to be largely futile, particularly when pressures for payment are suddenly applied. But unfortunately economic and political stability are far from attainment, and investors in foreign obligations are almost certain to be wary about making new loans. If there is no general scaling down of existing debt, and new foreign loans are made privately or by the Bank or by the Export-Import Bank of the United States or through some other agency, the aggregate (which is already too large for servicing by the debtors or receipt by the creditors) will be so great that there may be a general collapse.

A workable adjustment will not be easy. Credits extended by the United States to the United Kingdom and to France have been outlined. In addition there have been numerous advances by the Export-Import Bank to other countries. As of December 31, 1945, that Bank reported that it had "outstanding commitments, including money authorized for cotton loans, of \$1,560 million of which \$1,040

million was committed in the last half of 1945," an amount which included the \$550,000,000 credit to France. Various other foreign credits have been privately arranged and announced from time to time but the situation is changing so rapidly that no summary will be attempted. Assuming favorable economic and political conditions, other countries may be able in time to make loans but for the present the United States is the chief source of funds. This will, to a considerable extent, be the case even if many or most of the future loans are made with the guarantee of or directly by the International Bank for Reconstruction and Development.

It is easy to think of this Bank and of other financial institutions as furnishing "capital" or "capital funds" rather than as the channel through which they may be secured. But what is borrowed with the aid of this financial machinery is primarily a part of the current income of certain national economies, for the present that of the United States. This part of the national income of the lender is made available to the borrower. Later servicing of the debts will be through the diversion of a specified part of the incomes of the borrowers. These amounts may be reinvested in the same debtor areas or in others, but the fundamental consideration to be kept in mind is the flow of incomes and the difficulties of adaptation if actual repayment is expected by creditor groups. If there is a single basic idea that should be emphasized it is that real incomes everywhere in the world should be maximized and that organizations and methods for removing trade barriers should be developed in every possible way.

What Can Be "Loaned." If capital funds are secured, the next step is the use of these funds by the borrowers to purchase commodities or perhaps services. These may be acquired in the lending country, or the funds, dollars, for example, may be used to make purchases in other countries, provided that no restrictive tying clauses are included in the loan agreement. If the dollars are used by the borrower, Norway, for example, to purchase wheat in Argentina, then the Argentinians may use the dollars to buy from the United States or elsewhere. Presumably the dollars will ultimately be utilized to make purchases in the lending country, and it is not possible to forecast the precise goods that will be bought.

A few general observations are, however, pertinent. What is exported will not be for the most part instrumental capital, and, generally speaking, there will flow from the lending area a part of

its current income. While the borderline may often be indistinct, attention should be centered on the estimated income of the lender and not on those parts of wealth which are not exportable. The size of that income and the part of it which the population "saves," voluntarily or under compulsions, indicates in a general way what is available.

While exports may be discussed in these broad terms, what actually goes abroad is particular objects, such as bushels of wheat and tons of coal and yards of cloth. Assuming no governmental designation of what will be shipped, the items which move will be those of which there is such an abundance that prevailing prices offer an inducement to foreign buyers. These prices will be first a resultant of conditions in the lending country, that is, of the amount it has produced and its public policies, such as "parity prices" for agricultural products (as in the United States) or subsidies on exports. Importers who make the purchases will also find themselves affected by the policies of their own countries, such as tariffs and other restrictions on imports.

What Should Be "Borrowed." The officials of the Bank or others whose duty it will be to examine loans that are to be guaranteed or made, may not be able to pass on a proposal by specifying what is to be exported from the lending country except by noting the general conditions in the borrowing country and particularly its imports. Presumably imports of luxury goods will be carefully scrutinized and viewed with disfavor if the borrower is a country of low per capita national income and in dire need of necessities. Stress will be placed on borrowing only for "productive" uses, in spite of the difficulty in deciding particular cases. Loans will not be encouraged on a scale and at a rate that may encourage extravagance. It will not be forgotten that while actual servicing, as we have repeatedly discussed it in preceding pages, may not be really necessary so long as there is fair economic and political stability, this stability is far from being assured, and creditors will from time to time insist on payments on interest and amortization accounts and not be ready to reinvest regularly what is falling due.

No one should rashly assume, therefore, that merely organizing and staffing the Bank is a guarantee against future difficulties. All that may be ventured is the belief that the chances for an avoidance of trouble in the future comparable to the troubles of the past are considerably better under the new procedure than they would be

if international lending were attempted in the chaotic ways pursued just after the First World War.

THE POSITION OF THE UNITED STATES

For the present and for some time to come, the United States will be the primary lending country. Although her position may change slowly, Great Britain is now in the debtor class and the other countries in western Europe will not for some time to come

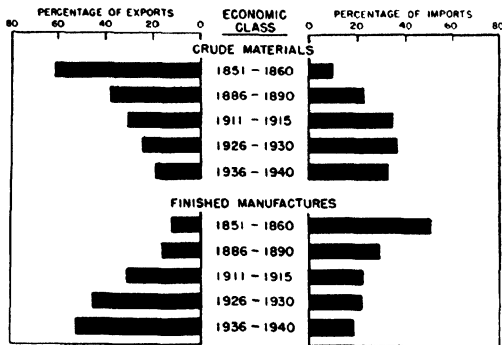


FIGURE 38. Changing composition of United States foreign trade, 1851-1940. (From the United States Department of Commerce)

be able to lend abroad. It is accordingly helpful to examine Figure 38, which shows the changing composition of United States foreign trade from 1851 to 1940. The alterations are striking. On the export side, crude materials have fallen from some 60 per cent of the total to about 20 per cent, while finished manufactures have correspondingly increased. On the import side, there has been an increase in imports of crude materials and a decrease in finished manufactures. In the last one hundred years there has been a great change in the American economy and in its relations with the outside world.

Care should be taken not to assume that past trends will be projected into the future, but Figure 39, showing the foreign trade of the United States from 1936 through 1944 with a tentative projection into the postwar period, should be carefully examined. In the period 1936-38, exports slightly exceeded imports. In the period 1942-44, exports were greatly in excess of imports but it will be noticed that this increase is to be explained by the lend-lease shipments (which have now been discontinued). Exports for "cash" were

less than imports. This diagram, which was drawn before the end of the conflict in Europe and in the Pacific, suggests clearly the situation facing the United States. That country is geared to an excess of exports. What will occur, no one can forecast with confidence but the issues raised may be stated if certain basic assumptions are made.

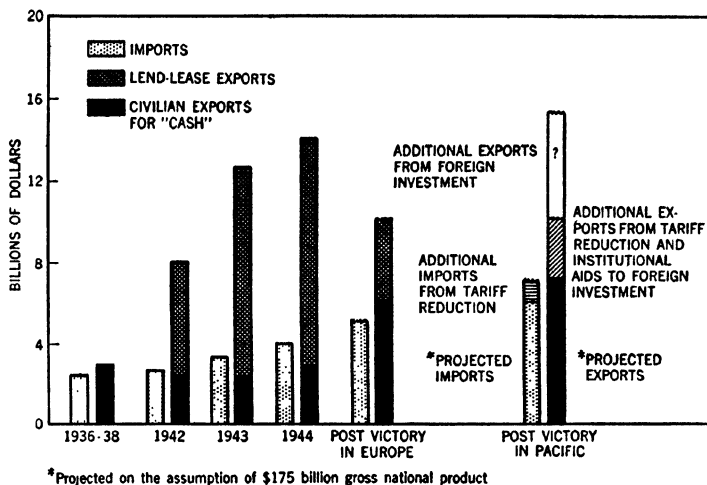


FIGURE 39. Foreign trade of the United States: prewar, war, and postwar. (From the United States Department of Commerce)

First is the size of the United States gross national product, which is assumed to be \$175,000,000,000 and therefore means a national income of perhaps \$150,000,000,000. As has been pointed out, this national income varies closely with industrial production and with imports. There is a close interdependence. Accepting this assumed product, note the possibilities of foreign trade. Lend-lease exports disappear. *If* there are reductions in the United States tariff, and *if* foreign countries lower their tariffs and aid investments, there will be some increase in United States imports and exports. The suggested change is for an increase of exports that will make their new total larger than the new total for imports but far less than the exports for several years prior to 1944. If they are to be maintained or conceivably be increased, there must be a considerable foreign investment by the United States. The amount of additional exports that may be financed in this manner is not

indicated, and of course the diagram is intended merely as a suggestion and not as a prophecy.

How closely this is related to economic activity in the United States is shown by Figure 40, which shows national income, total exports, and general imports from 1849 through 1944. Civilian

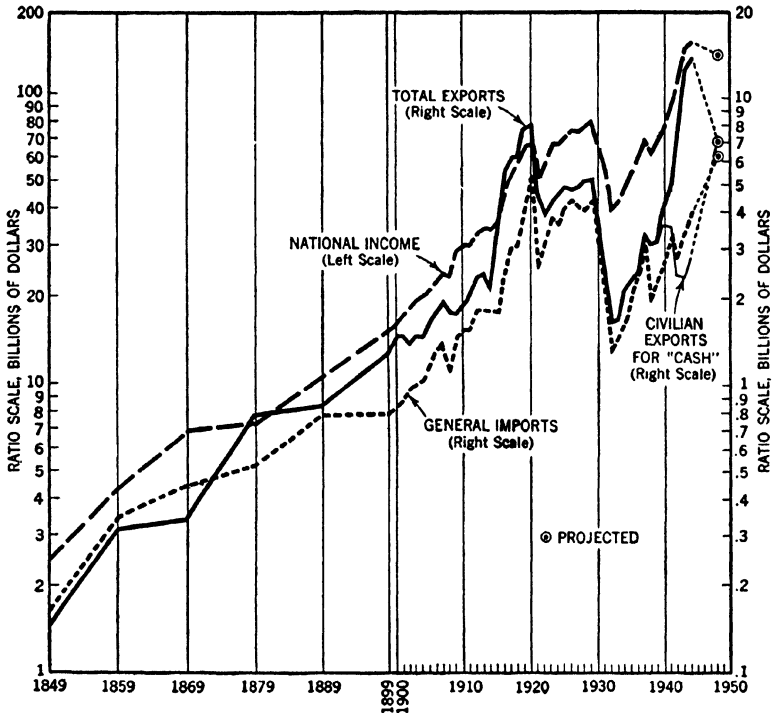


FIGURE 40. Foreign trade of the United States and national income. (From the United States Department of Commerce)

exports for "cash" are separately indicated from 1940. The possible future is shown by projections (dotted lines). Exports for "cash" increase but the total declines sharply because of the cessation of lend-lease with the new total less than during the war. If national income is to be maintained (with a moderate reduction), imports must increase but they probably will not increase enough to fill the gap. Again there is the indication that foreign loans may be relied upon. The changes of trade through 1945 have been given above in Table 62 (p. 570).

This chapter has discussed the tasks facing the Fund and the Bank. These two institutions or agencies will presumably be brought into relationship with the United Nations Organization (U.N.O.) through agreements as specified in Article 63 of the Charter. But mere articles of agreement are no more than the words indicate. They do nothing but set up a framework. Responsible officials and the general public in all the United Nations have the task of operating the machinery, which is not automatic. In our analysis we have of necessity come back to the United States. Because of its size and large national income, more depends upon it than upon any other country. It is not to be envied because of the responsibilities thus forced upon it. Errors may be expected and criticisms are already accumulating.

SELECTED REFERENCES

Buchanan, Norman S.: *International Investment and Domestic Welfare*. New York: Henry Holt & Company, 1945.

Department of State: *Charter of the United Nations*, Publication 2353, Conference Series 74. Washington: 1945.

Halm, George N.: *International Monetary Cooperation*. Chapel Hill: University of North Carolina Press, 1945.

Hoover, Calvin B.: *International Trade and Domestic Employment*. New York: McGraw-Hill Book Company, 1945.

League of Nations: *Conditions of Private Foreign Investment*. Geneva: 1946.

Nurske, Ragner: *Conditions of International Monetary Equilibrium*. Princeton, N. J.: Princeton University Press, 1945.

United States Treasury: *Articles of Agreement: International Monetary Fund and International Bank for Reconstruction and Development*. Washington: 1944.

Williams, John H.: *Postwar Monetary Plans and Other Essays*. New York: Alfred A. Knopf, 1944.

CHAPTER 38

FOOD AND RAW MATERIALS

In earlier pages, notably in Chapters 7 and 8 but also here and there in other chapters, attention has been centered on world strains connected with the production, distribution, and consumption of food and of raw materials. There are several broad conclusions that seem warranted but they should be stated carefully, since some apply to one item or group but not to others.

FOOD

Most foodstuffs are raised by many small producers. This is generally the case that each primary producer is engaged in sharp competition with others. Organized controls are not easy and in their absence each of these primary producers can influence only infinitesimally the total production and the price. When there is a business reaction, the manufacturers of many articles like automobiles may agree to curtail output or, in the absence of actual agreement, each of the few realizes that his own continued production will be an important addition to the total and accordingly he restricts his output.

In agriculture there is no similar control of output. In the years of depression following 1929, as shown by Table 17 in Chapter 7 and by Tables 19 and 20 in Chapter 8, there was no reduction in the world production of foodstuffs, but an increase. The only one of the four continents in which there was an appreciable restriction was North America, where a decline in the production of food in the United States was brought about under the direction of the Agricultural Adjustment Administration. This record is in sharp contrast with that of nonagricultural products and particularly that of metals, in which production by 1932 had fallen to only 43 per cent of that in 1929.

Demand. In the face of a considerable price inelasticity of demand and the further fact that the output of a particular producer or region may be sharply affected by weather conditions, the incomes

of agriculturists may fluctuate widely. If yields are only slightly increased, prices may fall sharply, while a moderate decrease results in a considerable rise. Demand does not alter greatly with these changes and prices fluctuate within wide extremes.

World Interdependence. The development of secondary and tertiary occupations in many countries and the decline in the percentages of their population engaged in agriculture has made them dependent on other parts of the world where foodstuffs are produced. At the same time the areas which produce food are dependent on the other areas for markets. This interdependence is illustrated by Table 18 in Chapter 7.

Technological Changes. Difficulties for producers of food are in some respects lessened by technological changes, which have sharply reduced the manhours needed per unit of output. But this change, which seems to be an advantage, actually has raised other tensions. As a smaller percentage of total population is required to produce food for the world, there are difficulties in shifting large numbers of agriculturists to secondary and tertiary occupations. These difficulties are in part caused by the reluctance of many to make the change and in part by the impossibility of absorbing them quickly and smoothly in other pursuits. These shifts may be made more readily by totalitarian regimes, which can overcome inertia and even active opposition more easily than is possible by other governments. In time of war or active preparation for war, the change-over is facilitated even in the democracies.

This improvement in methods of production also has lessened the possibility of reducing "population pressure" by emigration. Apparently areas where population density (whether superficial, agricultural, arable, or productive) is high could secure but little relief by emigration even if there were no political obstacles. Or, if some measure of relief could be found by emigration, the emigrants would find it difficult to support themselves by raising food in most of the areas that could be made available. Moreover, by increasing the world agricultural output, they would add to the difficulties already being experienced.

AGRICULTURAL OVERPOPULATION AND LOW INCOMES: ANOTHER APPROACH

This is, however, not the whole story. It is well enough to notice the difficulties with which producers of foodstuffs are overwhelmed

and to point out that there is frequently "overproduction." But there is a growing awareness that there is a vast difference between desire and need on the one hand, and market demand on the other. Market demand is the desire plus purchasing power and a willingness to utilize the purchasing power in acquiring the article in question. The troubles faced by agriculture are those owing to the nature of market demand, and this in turn is to be explained by the lack of purchasing power among many who desire more food. Also, many who need more in order to attain and maintain physical efficiency, must perhaps be educated to desire what they need. In Chapter 9, there were given estimates of per capita income and of income per occupied worker throughout the world, estimates which indicate that hundreds of millions of persons do not have enough purchasing power to acquire what they may desire and need. In Chapter 10, there were quoted several excerpts from the *Final Report of the Mixed Committee of the League of Nations on the Relation of Nutrition to Health, Agriculture and Economic Policy* and from the *Report of the Section on Consumption Levels and Requirements* of the United Nations Conference on Food and Agriculture. Also in Chapter 10, there was shown for two countries, the United States and the United Kingdom, an unequal distribution of national income, which indicates that many even in these comparatively rich countries lack the purchasing power to acquire adequate food.

Income Elasticity of Demand. There may be price inelasticity of demand for food but there is also a large measure of income elasticity of demand. To raise the incomes of the millions whose purchasing power is low is an intricate and heartbreaking task, but it is increasingly clear that among the objectives sought for the years ahead are higher standards of living. In fact, all of the economic objectives currently discussed are to be thought of as aids to raising the levels of living and maintaining them. It can be said that foreign exchanges are to be kept under suitable control, investment is to be encouraged and guided, and trade is to be stimulated in order that incomes may be higher and more regular than in the past. If the 53 per cent of the world's population who were recently receiving \$4.00 a week or less per occupied worker, can be raised to higher income levels, there will be a vast increase in the effective demand for food.

This might suggest that the trend away from agriculture should be retarded or perhaps entirely checked in order to maintain or enlarge

the output of food, but the United Nations Conference on Food and Agriculture at Hot Springs, Virginia, in 1943 stated:¹

Finally, one of the major obstacles to increasing agricultural production in many parts of the world is agricultural overpopulation. Millions of people live on the land but are unable to wrest from it the essentials of adequate nutrition. Too many people on too small units, using inefficient methods of production and lacking occupational outlets for their expanding numbers; these are the characteristics of areas which include nearly half the world's population. Agricultural overpopulation hampers agricultural development by holding down the incomes of rural people. It forces the farmers to produce crops which will supply the minimum energy requirements of the rural inhabitants and does not provide sufficient scope for the production of protective foods.

RELIEF AND REHABILITATION

As the Second World War came to an end, and as one country after another was cleared of the invaders, there have been efforts made to provide food, clothing, and other supplies for the inhabitants. Calls for such help occur after all wars and did after the First World War, for example. Even before the enemy is driven out of invaded areas, strong pleas are made on their behalf and supplies may be sent in, as was the case with Greece before the Germans left.

In 1941, the Department of State of the United States began discussions along these lines, and in November, 1942, the Office of Foreign Relief and Rehabilitation Operations was established "to supply medicines, food, clothing and other dire needs of those peoples who have been plundered, despoiled and starved." A year later, in November, 1943, the United Nations Relief and Rehabilitation Administration was organized and at once began its work. The U.N.R.R.A. Agreement was signed by representatives of forty-four United Nations on November 9 and immediately thereafter a conference was held at Atlantic City where the first session of the Council occurred.

A distinction should be drawn between the work of U.N.R.R.A., which confines its activities to immediate and temporary needs, and the questions of a more long run importance, which also concern us. The efforts of the U.N.R.R.A. were directed to "bringing assistance at once to the victims of war" and in ways that "do not impede the effective prosecution of the war." Need is the criterion "without discrimination because of race, creed or political belief."

¹ *Final Act and Section Reports*, Appendix 2, p. 53.

If aid is given in an enemy or ex-enemy country, the expenses "should be carried by the enemy or ex-enemy country concerned." Administrative expenses are to be shared among the United Nations in agreed percentages, each contributing an amount equal to 1 per cent of its estimated national income for the year ending June 30,

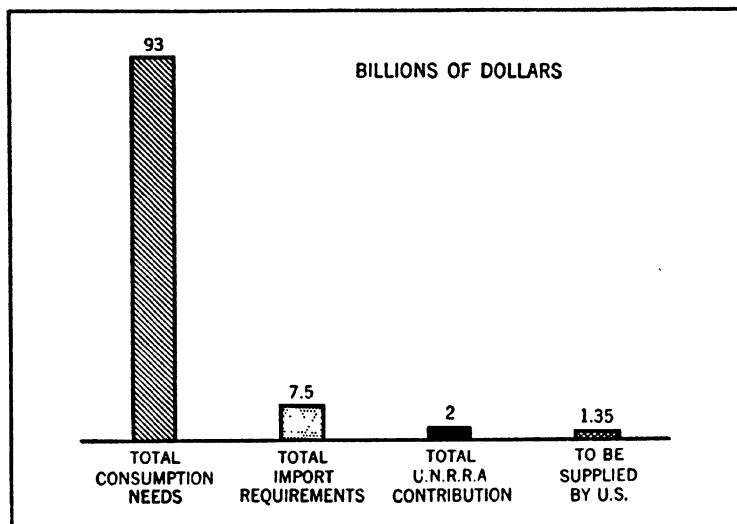
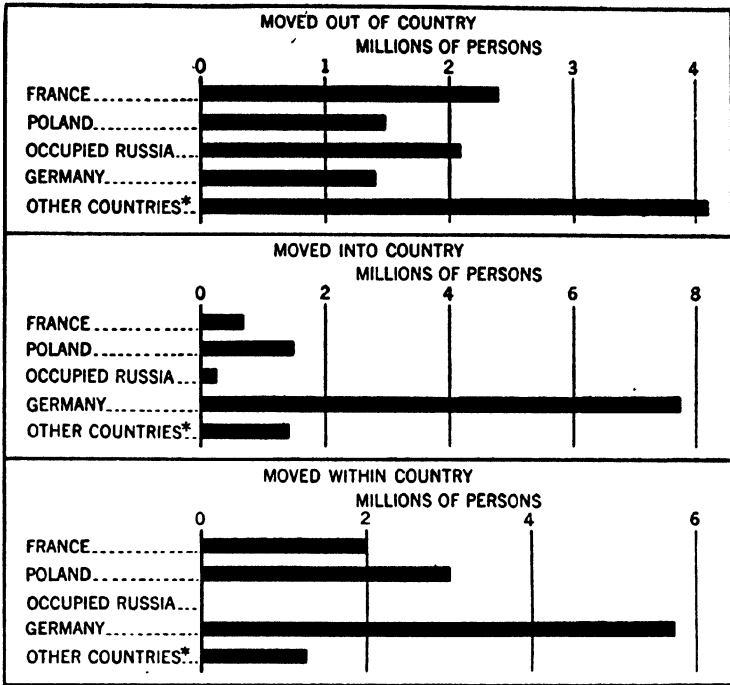


FIGURE 41. Relief and rehabilitation requirements for an eighteen-month period after liberation exclusive of China and the U.S.S.R. (From the *First Report to Congress on United States Participation in the Operations of UNRRA*, Foreign Economic Administration, December 5, 1944)

1943. This allocates \$1,350,000,000 to the United States and on June 30, 1944, Congress appropriated \$450,000,000 of this amount and later made other appropriations.

Figure 41 shows the estimated relief and rehabilitation requirements as calculated in 1944 for an eighteen-months period after liberation, not including China and the Soviet Union. Of the total consumption needs estimated at \$93,000,000,000, only \$2,000,000,000, or slightly over 2 per cent, was to be contributed by the U.N.R.R.A. The countries to be aided were expected to provide for themselves as fully as possible, and the assistance given was for the purpose of relieving immediate pressing needs and to help the aided help themselves. As so often pointed out in preceding pages, reconstruction of destroyed or damaged factors of production is a com-



*Other countries include Belgium, Netherlands, the Scandinavian countries, the Balkans, Czechoslovakia, Hungary and Italy

FIGURE 42. Displaced persons in Europe. (From the *First Report to Congress on United States Participation in the Operations of UNRRA*, Foreign Economic Administration, December 5, 1944)

paratively easy and brief task, always assuming that political and other conditions are favorable. The loss of labor power through death and injury is irreparable, but land can soon be brought back into cultivation (with the exception of such areas as have been seriously damaged by salt-water flooding, where some years may be required). Capital equipment, too, can soon be replaced.

It would be unfortunate not to emphasize the task of restoring to their former abodes or settling elsewhere the men, women, and children displaced by the war. The estimates of Eugene M. Kulischer were cited in Figure 31 (Chapter 35), but there is added here Figure 42, prepared by the Foreign Economic Administration of the United States, which, in estimating the numbers in Europe at more

than 20,000,000 persons, "includes those whom the Nazis have transported into Germany to work under slave-labor conditions, political and religious refugees, and all those who have been forced from their homes by military operations." The diagram is inserted here to call attention to the fact that this displacement of peoples should be kept constantly in mind. Their plight added immensely to the burdens that were assumed by U.N.R.R.A. and to the delay in getting a resumption of production at a level comparable with that of 1939.

THE TASKS OF THE U.N.R.R.A.

With conditions so rapidly changing, it is not advisable to survey here the activities of the U.N.R.R.A. By the time these words are read, too much will have occurred, and details of importance at the time of writing will be of little or no interest. Consequently, only a few broad matters will be touched on.

TABLE 63

INDEX NUMBERS OF WORLD POPULATION AND OF WORLD PRODUCTION OF SELECTED FOOD CROPS, 1933-1943

(Base period 1933-37 = 100)

Year	World population*	Food Crops				
		Wheat and rye	Rice	Sugar	Potatoes†	Total‡
1933	98	103	102	91	91	100
1934	99	96	90	92	96	94
1935	100	98	97	100	85	97
1936	101	94	103	109	108	100
1937	102	109	107	108	120	109
Average:						
1933-37	100	100	100	100	100	100
1938	103	116	106	103	101	110
1939	103	109	103	111	102	107
1940	104	103	95	111	106	102
1941	104	100	101	100	104	101
1942	105	99	100	98	114	101
1943	105	96	108	102	86	100

SOURCE: Purves, C. M., "Wartime Changes in World Food Production," *Foreign Agriculture*, United States Department of Agriculture, January, 1945, p. 14.

* Estimates from 1933 to 1939 based upon trend of increase in world population from 1925 to 1936 as estimated by International Institute of Agriculture. Estimates of rate of increase in population during war years assumed to be half as much as in prewar years.

† Includes all important producing countries except the Soviet Union.

‡ Combined production of crops listed, in terms of calories, after adjustment for the average proportion of each product used for food. During the base period the quantity of these crops used for food was equal to slightly more than 50 per cent of the total calorie requirement of the world population.

Wartime Food Production. During the war, world production of food crops seems to have been maintained. This is shown by Table 63, which gives the index numbers of world population and of world production of selected food crops for the period 1933-1943. The limitations of the data are indicated by the footnotes, which should be read carefully as this table and the next one are studied. The total production of the crops included has been maintained and in 1943 was as great as for the base period 1933-1937. The production of potatoes had declined most but only in 1943. There was, however, a world population increase of 5 per cent over prewar totals.

TABLE 64
WORLD FOOD PRODUCTION, BY MAJOR GEOGRAPHIC REGIONS
AND BY TYPE OF PRODUCT

(Average of production in 1942 and 1943 as a percentage of prewar period *)

Type of product	North America	South America	West- ern Europe and North Africa	Middle East	Oce- ania and South Africa	South- ern and eastern Asia	All coun- tries†
	PER CENT	PER CENT	PER CENT	PER CENT	PER CENT	PER CENT	PER CENT
Crops:							
Cereals	130	104	98	99	94	102	106
Fruits and vegetables	118	130	105	87	124	104	109
Edible oils	162	297	109	66	(‡)	109	123
Sugar	108	120	98	140	96	104	105
Total	129	118	100	96	96	103	107
Livestock products:							
Meat, poultry, and eggs	143	116	66	91	124	75	108
Dairy products	119	120	83	77	101	100	101
Total	132	117	75	86	113	94	105
Grand total	130	117	94	95	101	103	107

SOURCE: Purves, C. M., "Wartime Changes in World Food Production," *Foreign Agriculture*, United States Department of Agriculture, January, 1945, p. 14.

* Production measured in calories for thirty countries. The average of 1942 and 1943 is expressed as a percentage of a prewar base. The prewar average differs slightly by countries because of lack of comparable data or in order to obtain a normal period of prewar production. For most countries the prewar average was 1933-37, 1934-38 or 1935-39.

† The countries included in the various regions are as follows:

North America — Canada, United States, and Mexico.

South America — Brazil, Uruguay, Argentina, and Chile.

Western Europe and North Africa — United Kingdom, Eire, Norway, Sweden, Denmark, Germany, France, Italy, Spain, Tunisia, Algeria, and French Morocco.

Middle East — Egypt, Palestine, Turkey, Greece, and Bulgaria.

Oceania and South Africa — Australia, New Zealand, and Union of South Africa.

Southern and eastern Asia — India, Unoccupied China, and Japan.

‡ Production insignificant.

Problems of the U.N.R.R.A. Stated in the most general terms, the tasks of the U.N.R.R.A. were: (1) to secure from the various United Nations the funds for its work; and (2) to organize the machinery for purchasing food (and, of course, clothing and other supplies), and of finding means for transporting and distributing supplies. Although world food production has been maintained fairly well, there are significant differences in this production among the various regions and products. These are indicated in Table 64. It will be noticed that production has materially increased in the Western Hemisphere, but has declined considerably in western Europe and North Africa and in the Middle East. It will also be noticed that not all parts of the world are included in the survey, and that "In some other areas not covered by this study, including the war-torn parts of the Soviet Union, Occupied China, and the Dutch East Indies, the decline was probably greater than in Western Europe, . . . but available data are too incomplete to measure it."²

But even in western Europe, where the total food production had declined in 1942 or 1943 by only 6 per cent from prewar levels, the crop output had been maintained, although a reduction of 25 per cent had occurred in livestock products. This reduction is generally attributed to a shortage of feed for animals which was imported during the prewar years but had not been available during the war. A part of the task ahead is to arrange that the importation of feed shall be resumed as promptly as possible and that the herds and flocks be provided with adequate nourishment.

Of course, even the production of food crops, which has been on the whole well maintained in western Europe and North Africa, has varied from one region to another. Thus, in the United Kingdom from 1936 to 1938, there were percentage changes by 1943 as follows for the products indicated: wheat, 109; barley, 115; oats, 58; potatoes, 102; sugar beets, 37; vegetables, 34; and fruit, 55.³ Also, the increase in the income of many persons has meant an advance in demand for food, a demand which has to a considerable degree been held down by rationing.

² Purves, C. M., "Wartime Changes in World Food Production," *Foreign Agriculture*, United States Department of Agriculture, January, 1945, p. 13.

³ *Statistics Relating to the War Effort of the United Kingdom*, Cmd. 6564, November, 1944, p. 17.

WORLD FOOD IN THE FUTURE

There is nothing more basic to human existence than adequate supplies of food, No one item can be named, but food of some kind is an essential. If physical efficiency is to be attained, the supply of food must be adequate in its total amount and also must furnish a proper combination of the various food elements. Also, food must be available day by day and week by week.

In some areas as, for example, the United Kingdom, the population is so numerous that dependence has been placed on the importation of from half to two thirds of the food currently consumed. In other countries, such as Germany, a smaller percentage of the current food consumed has been imported, but a high percentage of some kinds of food, fats, for instance, has been secured from abroad. If more food is produced locally in such areas, the cost of producing it is apt to be higher, perhaps very much higher, than would be the cost of a similar amount imported from areas where costs are lower. (See Table 65, page 632.)

A large fraction of the world's population is undernourished. This fact is now recognized, and concerted efforts are being made to encourage a larger production and a more satisfactory distribution of food. In May, 1943, there was held at Hot Springs, Virginia, the United Nations Conference on Food and Agriculture to which reference has already been made. We have quoted certain passages from the report of this conference. One step which was taken was to create an Interim Commission on Food and Agriculture as a preliminary to the creation of a permanent organization of the United Nations in the field of food and agriculture. This interim organization formulated a proposed constitution for the Food and Agriculture Organization of the United Nations which was made public on August 23, 1944. This was merely a proposal submitted to governments, but it has been ratified and the F.A.O. is now in existence. It will not be forgotten that the U.N.R.R.A. is concerned with the immediate task of relief and rehabilitation. The F.A.O. has now "permanent responsibilities in relation to long-term problems throughout the world."

Its objectives, as set forth in the preamble of the constitution, are:

1. To raise levels of nutrition and standards of living among the peoples of the world.

2. To secure improvements in the efficiency of production and distribution of all food and agricultural products.
3. To better the condition of rural populations.
4. To contribute by these means toward an expanding world economy.

The original members were to be those of the forty-six nations listed in an appendix who accept the Constitution and others who may be admitted later. The F.A.O. has now come into existence, since the proposed Constitution has been accepted by more than the twenty nations whose acceptance was specified as a prerequisite to its organization.

Instead of reciting the details of this organization, it is better here to notice the task with which it is faced. This is another "functional" approach. Instead of waiting for a political (for example, a federal) organization of the world, the United Nations are endeavoring to alleviate the distressing situation in a particular field — food and agriculture. This is similar to the approach at the Bretton Woods Conference dealing with monetary controls and investments. It will presumably be absorbed by any world organization that may later be formed.

Objectives of the F.A.O. An examination of the objectives of the F.A.O. as just listed indicates that they are concerned with two groups: consumers and producers. The consumers to be considered are those whose levels of nutrition and standards of living are low. How low they are we have noted over and over again in the pages of this volume. Accepting the estimates of Colin Clark as the best available, and as in any case approximately correct, there are 81 per cent of the 2,145,000,000 people in the world whose incomes per occupied worker amount to \$10 a week or less and some 53 per cent with similar incomes of \$4 a week or less. The extent of undernourishment among large masses of people, even including many in countries where the income for each worker is high, has already been pointed out.

It is proposed to raise the levels of nutrition and the standards of living of these hundreds of millions of people. Presumably we can measure reasonably well the minimum they need in order to reach and to maintain standards that are set by experts in nutrition. But this is, of course, insufficient. Unless measures are devised by which they may acquire what they need as a gift, they will be nourished properly only to the extent that they are able to "demand" what

they need. And in the kind of world in which we live, this means that they must themselves produce something that can be sold to others, the proceeds then being used to purchase food. In spite of glaring inequalities in the distribution of what is now being produced, there is not enough aggregate production to raise the levels of nutrition as proposed. The task is then a broader one than merely raising the production of food so that there will in the aggregate be enough for the purpose. Those who are to consume the food must either themselves produce more or produce something else which can be exchanged for food. Need and desire must have purchasing power added to become market demand.

It is not sufficient merely to increase agricultural output. It is not sufficient even to produce and distribute food at lower cost. Those who need and, in most cases, desire the food, must be able to pay for it, and to be able to pay they must increase their own production of something. That mere concentration on agricultural production in particular areas does not furnish the answer, is shown by the heavy additional cost at which France, Germany, and Italy added to their domestic output of wheat and certain other products (Table 65 on page 632).

The other side of the picture is the condition of the producers of agricultural products. We have found difficulty with the concept of "overpopulation," but there are at least areas in which there are so many already engaged in agriculture that the levels of living in those areas can not readily be raised without shifting some of the population into secondary and tertiary occupations. Unless this is to mean a reduction in the output of food, there must be an improvement in the efficiency of production among those left in that activity. This the F.A.O. constitution recognizes.

Agriculturists face price inelasticity of demand. A slight increase in output means a sharp decline in selling price. This would be offset by a rise in incomes of purchasers, since hundreds of millions in the low-income brackets could and doubtless would purchase far larger quantities even of the staple agricultural products if they could do so. How to raise their incomes into higher brackets is even more basic than to increase agricultural output at lower costs although, of course, lower unit prices would mean that even a small income would go further.

A word should be added about the "political" difficulties which must be overcome. Decisions will be reached and actions will be

taken by governments, each of which is concerned primarily with the interests of its own nationals. Some nations are on balance producers and exporters of food and agricultural products. Others are on balance importers and consumers. Some produce and even export particular kinds of food but import and consume other kinds. (See Table 18, page 111.) In the past, there have been few indications that a national government, in its relations with the rest of the world, is more benevolent or altruistic in its actions than are individuals or corporations. Experience thus far shows that governments are prone to limit output in the hope of improving the economic condition of their own nationals. Coffee has been burned, cotton already planted has been plowed under, and rubber production has been restricted — and in a world where a high percentage of the population is “ill-housed, ill-clad, ill-nourished.” (These words do not apply solely to the United States.)

This is said merely as a reminder that the issues raised are not solved merely by putting them in the hands of public officials. The tasks are large and difficult. Human beings do not become omniscient nor omnipotent merely by being placed in official positions. Pressures will be applied by interested groups, especially producers. In many cases, these producing groups will be facing acute economic difficulties of their own, a condition which has been generally true in agriculture. It would be utopian to imagine that suddenly we shall have a burst of output from our farms, merely because it can be demonstrated that millions are suffering from malnutrition. Many of these underfed millions — in China, for example — are themselves engaged in agriculture but are underfed.

THE THREE TASKS OF THE FOOD AND AGRICULTURE ORGANIZATION

Accordingly, the difficulties faced by the F.A.O. may be grouped under the three headings familiar to students: production, consumption, and distribution.

Production. Methods of agricultural production in many parts of the world are primitive, some of them being those generally in use a century or more ago. Primitive tools, inadequate fertilization, little or no proper rotation of crops, poor seeds, and other technical defects abound. In terms of human effort, the costs of production are high, yet the products must compete in the markets with those from other areas where the most modern methods prevail with low

unit costs. Marketing also is often wasteful and expensive. As a consequence, the returns to producers are deplorably low.

One line of effort, then, is to devise ways and means for encouraging research and the adoption of the best-known practices in agriculture. No argument seems needed to emphasize the value to the entire world of attempting to get the maximum of return from the soil with the minimum of cost, whether expressed in units of toil or in money. Yet to the very extent that such efforts are successful, other difficulties are raised. There must be faced the persistent price inelasticity of demand. An increase in supply means a sharp fall in price with the agriculturist still with a low income in spite of his enlarged output. It may well be that his condition will be worse rather than better. For many years it has been true that a smaller percentage of the population has been able to supply the food for the total population. If farm output per worker is increased, "overpopulation" in agricultural areas may be intensified.

Consumption. Consequently, the F.A.O. contemplates doing what it can to encourage research and education in the field of nutrition. Our knowledge in this field is in its infancy, but enough is already known to permit the specialists to speak with assurance on many matters. They can tell us the amount of calories, proteins, and vitamins needed by human beings for health and physical efficiency and indicate how these should be distributed among the various kinds of food. They also know the proper division between energy and protective foods, and the significance and values of each of the vitamin groups. But they have much still to learn and the rest of us have not yet grasped what they are telling us. As their knowledge increases and our education progresses, we may be stirred to greater efforts.

Distribution. Distribution may refer to the multitudinous activities carried on in connection with warehousing, transporting, buying, and selling. These activities are a part of the productive process and have already been mentioned. But the word is used here to refer to the distribution of purchasing power among individuals and groups in society. Most of the two billion people in this world are poor. The remedy lies first in enlarging world income, but this is insufficient unless the masses of people have the purchasing power with which to buy what is produced. The two go hand in hand. If larger numbers have more purchasing power, then the increased output can be marketed. There is a considerable income

elasticity of demand for food, and if incomes can be raised, then a greatly enlarged output of food products can be marketed, even of such basic crops as wheat, corn, rye, and rice. Then, as incomes advance and a knowledge of proper nutrition spreads, further increases in food purchases will doubtless be for protective foods and for meat and dairy products instead of grains. These items in some cases can be raised only with more labor, which will moderate the strain caused by agricultural "overpopulation." To the extent that market demand shifts to meat products, there will be a need for more land, since larger areas are needed (from four to perhaps ten times as much) to provide human food indirectly through animals than if human beings take their food more directly by eating cereals.

It is easy to let our imagination roam over more distant and perhaps more speculative possibilities. The F.A.O. has no direct responsibility for some of these matters. But the success of its efforts will be limited by what is done in other directions. Improved industrial techniques (as rapidly as the gains from them are passed on to workers through enlarged money or real incomes), expanded world trade, stable foreign exchange rates, an appropriate amount and direction of investments, the wise organization and operation of public or private cartels, and many other factors are all involved.

The F.A.O. will become a part of the U.N. by a suitable agreement with the Social and Economic Council as will the other international agencies. As set forth in its constitution, its function is to "collect, analyze, interpret and disseminate information relating to nutrition, food and agriculture." It can implement its purposes by furnishing technical assistance and can organize technical missions "in co-operation with governments concerned." Fortunately, its plans are not grandiose and its responsible leaders, who are fully aware of the difficulties of their task, realize that results can come but slowly and are conscious of the close interdependence between the work of the F.A.O. and other international agencies.

SELECTED REFERENCES

Brandt, Karl: *The Reconstruction of World Agriculture*, New York: W. W. Norton & Company, 1945.

Feis, Herbert: *The Sinews of Peace*, New York: Harper & Brothers, 1944, Part V.

Interim Commission on Food and Agriculture: *First Report to the Governments of the United Nations*. Washington: August 1, 1944.

Leith, C. K., Furness, J. W., and Lewis, Cleona: *World Minerals and World Peace*. Washington: The Brookings Institution, 1943.

Mather, Kirtley F.: *Enough and to Spare*. New York: Harper & Brothers, 1944.

National Planning Association: *UNRRA: Gateway to Recovery*, Planning Pamphlets Nos. 30-31. Washington: 1944.

Taylor, Henry C., and Taylor, Anne Dewees: *World Trade in Agricultural Products*. New York: The Macmillan Company, 1943.

United Nations Conference on Food and Agriculture: *Final Act and Section Reports*, Department of State Publication 1948, Conference Series 52. Washington: Government Printing Office, 1943.

Warriner, Doreen: *The Economics of Peasant Farming*. London and New York: Oxford University Press, 1939.

WORLD TRADE IN POSTWAR YEARS

It is expected that in 1947 there will be held a gathering of representatives of the United Nations to discuss world trade and to organize a new agency. Such an organization, if established, will presumably enter into an agreement with the United Nations organization similar, at least in broad outlines, to the contemplated agreements between the U.N. and such other agencies as the International Labor Office, the Food and Agriculture Organization, the International Monetary Fund, and the International Bank for Reconstruction and Development. Until it is brought into existence and given a title, we may refer to this agency merely as the International Trade Organization (I.T.O.).

Presumably a large amount of preliminary work will have been done before the conference is held. Just what tentative understandings may have been reached we know only in part, but we may assert that the actual success of such a gathering will depend largely on this advance meeting of minds by the officials of the major countries. That the other and smaller countries will enthusiastically agree on all points is not to be expected but at least the way has been paved by a preliminary interchange of views. There has, however, been nothing comparable to the world-wide discussions of the proposals that were finally drafted at Bretton Woods but there have been lengthy and elaborate conferences of public officials with announced agreements in principle.

FACTS TO BE FACED BY AN INTERNATIONAL
TRADE ORGANIZATION

In advance discussions and at the conference when held, certain basic considerations must be acknowledged. The conference can not operate in a vacuum. It will have no clean slate on which to write but must draft its plans for the kind of world in which we find ourselves. A few of these fundamentals may be noted.

Trade Dislocations. During the war, trade channels have been definitely altered. As already pointed out, exports from the United States were enormously increased (although "cash exports" were much less than imports). The economic structure of the United States has been geared to this situation and will be modified only in part by reconversion. British exports have sharply declined and perhaps the United Kingdom is now a debtor rather than a creditor. With the reduction of the service items in her balance of payments, she will be anxious to enlarge her commodity exports in order to secure the imports she needs if standards of living are to be maintained. Both the United States and the United Kingdom will be anxious to maintain or to increase exports.

Other countries and areas also have been affected. Latin American exports were increased. The trade of Germany, in which there was an excess of imports during the war years, has for the time being collapsed with serious consequences for other countries whose economies were closely tied up with Germany's finance and business. Illustrations could be multiplied.

Debtors and Creditors. As following the First World War, there are new debtor-creditor relationships. In addition to the illustrations elaborated in preceding chapters, we may add only a reference to Canada which is probably now a creditor. To the foreign claims already held by the United States, there are being added the credits arranged in that country by the Netherlands, the United Kingdom, by France and by other nations. These will give a temporary stimulus to United States exports, but whatever service charges may be arranged will in a few years mean a demand for dollars.

Foreign Exchange. As the war drew to a close, business could continue only if some relationship could be established between the various national currencies. Of necessity, the rates agreed upon were arranged largely through bilateral agreements and were somewhat arbitrary, since "equilibrium" rates could not be determined. These rates will be adjusted and the changes made will definitely influence trade. Most important is the relation between the pound and the dollar, which it has been officially announced is to be at \$4.03 to the pound.

Prior to September, 1939, there was a relationship between the British pound and numerous other currencies, the area covered being known as the sterling area. The countries included were those which found it advisable to maintain a stable rate between their

currencies and the pound. There were included all parts of the British Commonwealth (except Canada), a number of European countries, and, in addition, Bolivia and Japan.

This was not strictly a legal arrangement but in the autumn of 1939 a legal definition was formulated. In the area as thus defined there were included all of the British Dominions (excepting Canada and Newfoundland) and all other areas over which the British had more or less control. As the war ended the agreements with other countries already referred to, such as Belgium, the Netherlands, France, and Italy, enlarged the group of countries whose currencies were tied to the pound. Whether this should be considered an extension of the sterling area is debatable, but in the Anglo-American Financial and Commercial Agreement of December, 1945, the United Kingdom undertook to eliminate any discrimination arising from the dollar pool.

Protectionism. Prior to 1939 there were in existence a mass of restrictions on trade. The restraints included not only protective tariffs but import quotas, clearing agreements, compensation agreements, and so on. Many of these have disappeared or have been modified but others remain. We can not anticipate any important reductions in these trade obstacles but we may witness an increase in their number unless, through agreements or otherwise, the trend can be checked.

If protectionism is defined as broadly as it was by Josef Grunzel, whose statement was quoted in Chapter 21, we may be dubious over its elimination. Certainly there are few signs of a readiness to lessen national controls over immigration while many are retained over emigration; capital imports and exports are in many cases restricted; and there are few signs of a readiness to allow commodities to be imported more freely. Encouragement of commodity exports, by direct or indirect subsidies, seems to be increasing.

Two Kinds of Economy. A special difficulty arises from the existence of two types of economy — free and controlled. No national economy is entirely free from government control, but the extent of control varies widely from that exercised by, say, the United States to that of the Soviet Union. Moreover, the form and degree of control changes. For example, it has been more strict during war than it presumably will be now that the war is over. Yet it may be expected that the extent of such control will remain greater in some areas than in others.

SOME GENERAL PRINCIPLES

This brief summary indicates only a few of the basic facts upon which discussion must be based. If we consider only the efforts made to lessen trade restrictions during the last twenty-five years, there is little reason for optimism. The admonitions of the Genoa (1922) and the Geneva (1927) conferences seemingly had no effect. The Hull Trade Agreement program (renewed in 1945 for a three-year period) had only moderate success. No spectacular results are apt to come from another conference, but there is at least a little reason for hoping that the trend can be altered. There is some growth in the conviction that restraints have become excessive, and there is a slightly greater acceptance of several general ideas or principles. A few of these may be indicated.

The Indivisibility of Prosperity. Trade across national boundaries is largest between countries of large population and with high levels of income. No one country can in the long run gain through practices that work to the disadvantage of others. Speaking broadly, exports will be largest to countries where the populations are themselves producing at the level made possible by their own productive factors. If exports to them are temporarily increased by the extension of credits, the terms should be as generous as they can possibly be made. The more that must be remitted to external creditors as service charges on loans, the greater the danger of default and the less there will be for making further purchases abroad. Some of the past abuses frequently characterized as "dollar diplomacy" and "imperialism" when aided and abetted by governments (or as "exploitation" when practiced by private groups) are shortsighted.

Exports and Imports. It is not correct to argue that commodity imports *must* equal commodity exports or that there need be even a close agreement between imports and exports when service items are included. There may be an excess of one over the other for long periods of time. Nevertheless, in the balance of international payments, the trade items are usually the largest, and an attempt to maintain a large excess of commodity exports is apt to fail. Barriers erected against imports have in recent years been higher than can be defended by any sane arguments for protection. An I.T.O. will certainly fall short of its responsibilities if it does not do everything possible to reduce those barriers.

Another way of emphasizing the point is to reiterate the conten-

tion that we are concerned more with the income flow than with wealth. A large and balanced production of commodities and services should be sought. This is dependent upon the availability of the appropriate amount of each of the factors of production. In some areas, for example, among some of the countries of southeastern Europe, more capital equipment would increase the income of the farmers. Nevertheless, attention should be focused on maximizing the income stream rather than on listing the capital assets available. Incomes can be increased in many areas only by adding to the capital available in them, but if such investments are made judiciously, difficulties in adequate servicing of the loans are not apt to be great.

Full Employment. An I.T.O. will recognize that current interest in economic matters is being voiced through the slogan "full employment." It is to be expected that economic discontent will be expressed in different ways as conditions change. In recent years there has been concern about "overpopulation" and "overproduction." Expert advice only a few years ago stressed control over price movements as important or even a panacea. The world-wide distress during the decade following 1929 has led to the contention that postwar planning has five major objectives: "higher standards of living, full employment, social security, economic development and international economic collaboration."¹ By "full employment" is often meant the full employment of labor, but the full employment of labor is related to the full employment of all of the factors of production. Moreover, it means the availability of all of these factors in each area in those proportions that will give the maximum product. Also, it means not merely the maximum physical output but the economic maximum. There is, for example, slight gain to be secured through an increase in agricultural production unless the output can be marketed. This, in turn, means increasing and maintaining the incomes of consumers who are largely industrial workers. It also is apt to mean that in many areas the agricultural "overpopulation" will be increased, since with modern tools and techniques the output of foodstuffs can be greatly increased.

Interdependence of All Phenomena. It is possible to continue with the ramifications of the subject since, as is so often remarked, there is an interdependence of all phenomena. It has seemed worth while,

¹ Condliffe, J. B., and Stevenson, A., *The Common Interest in International Economic Organization*, Montreal, International Labour Office, 1944, p. 9.

however, to dwell for a few pages on the intricacy of the task to be faced by an I.T.O. Only too often a consideration of international trade has been a repetition of the doctrine of comparative cost and an exhortation to lower or remove protective tariffs. Instead of such a facile disposal of the issue, an I.T.O. will confront a bewildering and confusing situation.

Trade will depend upon demand which will express itself through the possession of purchasing power by buyers. The maintenance or enlargement of this demand will depend upon the size and distribution of income. It may for a time be brought into existence by extensions of credits, but in the longer run it must rest upon the receipt of large real incomes by masses of people. But in a large part of the world incomes are still low in spite of technological advances for several hundred years. In Chapter 6 we quoted John Stuart Mill's statement made in the middle of the nineteenth century. Happily it is no longer true of Great Britain and of the United States and of a number of other countries where toil has been lightened by the use of mechanical power and where incomes have been raised. But this unfortunately can not be claimed for the mass of the world's population. A recent statement may be quoted:²

The Industrial Revolution as yet has brought very few benefits, if any, to the great bulk of the two billion people in the world.

SPECIFIC PROPOSALS FOR AN INTERNATIONAL TRADE ORGANIZATION

Such comments as the one just given are general but they indicate the enormous size of the task facing the I.T.O. and are a warning against excessive optimism. In view of the historical background and of the current complexities, what lines of effort are the ones to be followed? A few suggestions can be made for an international trade organization without any attempt to indicate any form of organization or details of procedure.

Multilateral Trade. Emphasis should be placed upon the restoration and extension of multilateral trade as distinct from bilateral trade. Between the two world wars and particularly after 1929, the pressures upon each national economy were acute. Among the practices followed was the arrangement of many bilateral agreements. The tendency was to attempt a balance or a nearer balance in the trade between the two countries involved. But this in turn

² Wallace, Henry A., *Sixty Million Jobs*, New York, Simon & Schuster, 1945, p. 132.

restricted the trade of each with other countries — trade which might have developed in line with cost advantages. The concept of cost differences, either absolute or comparative, is increasingly intricate, but there are cost differences and every effort should be made to facilitate trade in accordance with the principle.

Reciprocal Trade Agreements. It seems improbable that a world-wide multilateral agreement can be arranged. Already bilateral agreements are being announced and doubtless many others are in process of negotiation. Beginning in 1934 the United States undertook the program to which has been attached the name of its staunch proponent — Cordell Hull, Secretary of State. Its general nature and some of its results have been described in a previous chapter. Nothing spectacular occurred, but there were modest gains which it seems fair to attribute to the program. Without suggesting that it can or will be used by other countries — except, of course, as particular ones enter into agreements with the United States — emphasis may be placed on its important feature. Each of the various agreements contained, in its unconditional form, the most-favored-nation clause. It is to be hoped that in lieu of some better device, an I.T.O. can give its endorsement to this method of increasing multilateral trade.

The Most-Favored-Nation Clause. It would be a mistake to ignore the opposition to the most-favored-nation clause. For many years it was generally approved, but even before 1929 much of this approval was becoming lip service. Conditions change as the years pass, and particular countries modify their attitudes. Great Britain, long the advocate of “free trade,” has shifted from this position. The United States utilized the most-favored-nation clause in its conditional form for many years but changed to the unconditional form in 1922. Recently the Federation of British Industries has protested against its continued use. Nevertheless, this clause is one way of spreading the results of lowered tariffs and its use should be encouraged.

Miscellaneous Trade Barriers. Until a few years ago, protective tariffs were properly considered the chief barrier to international trade. Their effect on trade was frequently exaggerated, but in recent years other obstacles have been much more serious, among them import quotas, exchange controls, and blocked currencies. These obstacles can not suddenly be swept away, but some of them have already been modified and all effort should be made to bring

about their further modification. Again, quick results are not to be expected. Too many uncertainties exist for many countries suddenly to abandon all restraints.

National Incomes and Foreign Trade. In Table 35 (page 262), there was shown for a number of countries the relationship between foreign trade and national incomes. The percentages there given are not the only index and perhaps not the best index of the "importance" of foreign trade, but they are helpful. The I.T.O. should recognize the very great extent to which certain countries depend upon imports and exports. So much of the national incomes is associated with foreign trade, that particular countries and regions may perhaps be given special and perhaps prior attention.

While the data in Table 35 are for only a few countries, there are others for which comparable information is not available, but whose dependence upon lowered trade barriers is perhaps even greater and failure to take them into account may bring serious consequences. As an illustration note the source of supply of natural rubber in 1938 as shown by Figure 13 (page 126). During the war, there was an increase in many countries in the production of synthetic rubber, and there is active consideration of maintaining the plants for its manufacture by the use of protective tariffs. To the extent that this means a loss of markets for natural rubber, there will be created a vast problem for millions of people in southeastern Asia and the Netherlands Indies. Certainly the I.T.O. as a world body should do what it can, by following policies and by advocating or approving actions that may relieve pressures in one area or industry without creating still worse ones elsewhere.

Declining Industries and Areas. As the decades pass regions or countries which formerly were in a strong position have been confronted with changes. Figure 38 (page 596) indicates how the position of the United States altered during a period of ninety years. Crude materials were the leading exports but only a few were imported in the early years of this period. More recently, exports of finished manufactures have grown. Relative positions have been changed. Exports of finished manufactures have advanced from a small percentage to nearly 60 per cent of total exports, while the imports of finished manufactures have declined as a percentage of the total.

This change occurred somewhat gradually over nearly a century and thus permitted an adaptation of the economy of the United

States that would have been more difficult if the time had been shorter. But in recent years, strains have been noticeable and have been accentuated after 1929. An illustration is found in the predicament of the agricultural groups. In the case of wheat growers, the strains were accentuated by the efforts made in several countries of Europe to attain self-sufficiency in wheat production. Growers of cotton, the demand for which is also inelastic, faced a sharp decline in prices. When they sought and secured government assistance, they found that the higher price restricted their sales abroad in competition with cotton from other parts of the world. The price differential against American cotton was too great. Their basic problem had not been solved, and the future is uncertain. Apparently nothing but a great increase in the demand for cotton (presumably, through the development of new uses for it) can bring relief unless costs can be lowered. If costs of production are lowered and the United States regains its foreign markets, the newer producing areas in other countries will feel the impact.

Cotton piece goods were formerly one of the most valuable of the British exports. During the First World War, cotton-manufacturing increased in many other countries and the British were unable to return to their former markets. This trend in cotton-manufacturing has continued, and with improved techniques the cost advantage of the British has been reduced.

Other illustrations could be added. Chile now must compete with low-cost manufactured nitrates, Brazil has a smaller fraction of the world's coffee markets. If such alterations come suddenly, the strains are intense, and each country that is adversely affected will undertake protective measures of some sort. These efforts may be of but little help, but pressures will be applied and governments will yield. An I.T.O. must face the grim fact that technological advances are coming more and more rapidly. What powers, if any, can be granted to such an organization is not at all clear, but each country will strive to protect itself. Even extensive powers in a paper constitution may mean but little. Such slogans as "full employment" and "economic security" will have a wide appeal and will bring support for many measures that may give a little temporary relief but in the long run they will be futile. The best that an I.T.O. can do will be to aid as much as possible in encouraging adaptations to new conditions, assisting as it can the shift of productive activ-

ity. It may be able to advise and to guide, but it will not be able to dictate.

Export Subsidies. One of the commonly used protective devices is the subsidy. Defined broadly, almost any form of aid may be so called. Used somewhat more narrowly, the expression includes aid to merchant fleets and to air transportation by means of special contracts for carrying the mails, low interest rates on loans for construction, special freight rates on commodities to be exported, and so on — a multitude of devices intended to aid a producer in meeting a cost disadvantage. Still more narrowly defined, a subsidy may refer to an outright gift to the exporter of a commodity that is sold in a foreign market, thus permitting him to sell at a lower price than he could otherwise charge, and at less than his price to domestic buyers.

As explained in an earlier chapter, this is dumping, if this term is carefully used, and many countries have antidumping legislation. Accordingly, it is a growing custom to seek ways of granting export subsidies that will prevent the application of such laws. The use of subsidies seems on the increase. Appeals by one group after another within each country for special assistance have been common enough in the efforts of producers to monopolize the domestic market. Aid in the expansion and retention of foreign markets seems to be increasingly forthcoming. Again there is a problem for an I.T.O. if its efforts are to be directed toward the development of multilateral trade with emphasis on cost advantages.

Stock Piles. If current discussion is an index of future efforts, it seems probable that an attempt will be made to steady markets by the accumulation of stock piles of many commodities, the production of which or the demand for which is irregular. If production is large and prices decline, either national bodies or international will purchase and hold the commodity until a reduced output or an enlarged demand raises the price. Then sales can be made from the stock pile, and an undue rise in price can be checked.

There is much to commend the plan. Steady prices rather than extreme fluctuations are to be desired. Among the considerations to be kept in mind are two. One is that the commodities must be those for which there is a continuing long-run demand rather than a merely temporary one. Presumably there will be no effort to apply the idea except to a few commodities, such as wheat, cotton,

rubber, coffee, and so forth, of which this is true. The other consideration is that producers will welcome the purchases for a stock pile when prices are low, but will be prone to oppose sales when prices rise. Of course, stockpiling of this kind should not be confused with stockpiling of critical materials as a reserve for use in case of war.

PROPOSALS BY THE UNITED STATES

Although the preceding pages have presented the issues in general terms, it should be noted that important steps have already been taken. Mention has already been made of the Anglo-American Financial Agreement of December, 1945. The two governments concerned joined at that time in a statement on commercial policy. Simultaneously the Government of the United States made public extensive proposals for the expansion of world trade and employment.³ The United Kingdom announced its "full agreement on all important points in these proposals . . . as a basis for international discussion." Later the French Government indicated its acceptance of them in principle. It is understood that they will be the basis for a preliminary consideration by representatives of a limited number of countries called by the United Nations to meet early in 1947 and then placed before an International Conference on Trade and Employment. It had been hoped that this conference could be held not later than the summer of 1946, but postponement has been necessary.

These proposals are directed to the purpose indicated by their title. Their comprehensiveness is shown by the statement "Trade connects employment, production and consumption and facilitates all three." Also it is contended:

International trade is kept small by four things:

- (1) Restrictions imposed by governments;
- (2) Restrictions imposed by private combines and cartels;
- (3) Fear of disorder in the markets for certain primary commodities;
- (4) Irregularity, and the fear of irregularity, in production and employment.

In this summary there are stated or implied nearly all of the issues considered in this volume. It is "proposed that there be

³ *Proposals for Expansion of World Trade and Employment*. Department of State, Publication 2411, Commercial Policy Series 79. Washington, November, 1945.

created an International Trade Organization of the United Nations, the members of which would undertake to conduct their international commercial policies and relations in accordance with agreed principles to be set forth in the articles of the Organization." There follows an outline of the proposed I.T.O.

How promptly such an organization can be brought into existence it is not possible to say. Like the I.L.O., the F.A.O., the Monetary Fund, and the International Bank it will be an organ of the United Nations whose members are sovereign states. It will operate within the framework of the United Nations Charter and will be still another functional approach.

In Conclusion. Since an I.T.O. is at this time not in existence even on paper, it has not been possible to speak definitely of its organization or of its powers as we could of the Food and Agriculture Organization, the Monetary Fund, and the International Bank. All we have been able to do is to suggest reasons why such an organization is to be desired, the leading ideas which should animate it, and some of the difficulties it must surmount.

SELECTED REFERENCES

Condliffe, J. B.: *The Reconstruction of World Trade*. New York: W. W. Norton & Company, 1940.

Condliffe, J. B., and Stevenson, A.: *The Common Interest in International Economic Organization*. Montreal: International Labour Office, 1944, chap. III.

Department of State: *Proposals for Expansion of World Trade and Employment*. Publication 2411, Commercial Policy Series 79. Washington: November, 1945.

Diebold, Jr., William: *New Directions in Our Trade Policy*. New York: Council on Foreign Relations, 1941.

Feis, Herbert: *The Sinews of Peace*. New York: Harper & Brothers, 1944, Part IV.

Staley, Eugene: *World Economic Development*. Montreal: International Labour Office, 1944.

Tasca, Henry J.: *World Trading Systems; A Study of American and British Commercial Policies*. Paris: The League of Nations, 1939; also New York: Columbia University Press, 1939.

Viner, Jacob: *Trade Relations between Free-Market and Controlled Economies*. Geneva: The League of Nations, 1943.

CHAPTER 40

CONCLUDING OBSERVATIONS

In the preceding five chapters only a few of the economic issues facing the world today have been considered. The list could be lengthened almost indefinitely. During and immediately after the war, there were shortages of many commodities in many areas because there was a lack of adequate ocean-going vessels. It was charged that harbors were blocked and that facilities for unloading ships and for storing their cargoes ashore were lacking. As a result many ships could not be used to the best advantage.

But after a time the tonnage of ocean shipping will be far greater than in 1939, and many vessels may lie idle. Even more serious is the change there will be in the relative amounts of tonnage under the various national flags. Most striking, perhaps, is the increase of United States vessels to perhaps more than 50,000,000 tons and the sharp decline of the British merchant fleet. This will be one of the economic dislocations to which reference has so often been made throughout this volume. In the balance of international payments of the United Kingdom, the net earnings of shipping were £130,000,000 in 1929 and £100,000,000 in 1938. If, as seems probable, there is sharp competition in the postwar years with a decline in rates, the British national income from this source may be sharply lowered.

Then there are the new issues raised by the rapid development of air transportation. Air transport has gained in speed, and costs have been reduced. Some of the tentative announcements regarding length of flying time and the low rates that may be charged are almost breath-taking. But even if there is some exaggeration in the forecasts, there will be great changes which will raise and in fact have already raised a bewildering number of issues. Air lines in the Northern Hemisphere, for example, will not parallel the old ocean routes but will be much farther to the north. Canada and the Soviet Union must be considered as never before, since

many air lines of the future will pass over those countries. Agreements must be reached regarding rights of transit, of landing, and other vexatious issues, which have hitherto not confronted the world so sharply as they will in the future. There will be a host of new problems to be considered affecting international law and also the "political" questions which can not be avoided.

POLITICAL ORGANIZATION AND ISSUES

Attention has been drawn to the two approaches to world organization that may be employed. One, it will be recalled, is the federal, and the other is the functional. A "federation of the world" may come sooner than many think, but such a federation has not yet been formed, and it is not clear that the nations brought together for military action and other immediate purposes will act together now that these objectives have been attained. In any event, a world federation or a federation of the United Nations will at the start be able to undertake only limited responsibilities.

In the meantime, analysis must assume that economic organization will be largely on a national basis. Only national governments are in a position to assume responsibility and exercise power. If attempts are made to maintain full employment of resources, the task will be organized and effected largely by each national government with primary consideration for its own area and people. Many believe, as does the writer, that every effort should be made to develop a world organization, but as yet we do not have one. For the present and for a time to come, most organized effort will and must be on a national basis, with national governments assuming the responsibility and exercising the power.

CURRENT OBJECTIVES IN WORLD ECONOMICS

Most of us are aware that it is not easy to determine trends while they are still in progress. What seems to be the general direction of change at the moment may prove later to have been merely a temporary development and not in the main current. Yet at present, and in many countries, there is an economic revolution under way. This second world war has emphasized even more than did the first one, that nineteenth-century political and economic institutions need, if not a transformation, at least extensive modifications.

"Full Employment." Public opinion now supports several objectives as the ones to be sought in the years just ahead. One is "full

employment." The term is at times limited to full employment of labor, but this in turn calls for a more complete use of the other factors of production, and the goal is accordingly full employment of economic resources. It is supplemented by the contention that such employment should be continuous and not spasmodic. Then there is the belief that our economic organization not only produces less than is possible if the productive factors were fully used but that this product is distributed too unevenly. Many human beings receive so little that current income distribution is objectionable on moral grounds, and it is argued further that a less uneven distribution would so increase the productive capacity of millions that the total of each national income would be raised.

Industrialization. In order to raise national incomes, it is commonly urged that industrialization should be extended. It is pointed out that workers in primary occupations receive lower incomes than those in secondary and tertiary occupations, and that in those countries where a large percentage of the people are employed in primary activities, the national incomes (on a per capita basis) are relatively low. Also, those who allege that there is "overpopulation" in some agricultural countries like Poland, and who doubt the feasibility of moving millions of people to other parts of the world, may add that if industrialization raises incomes, there will not only be a relief from "population pressure," but that birth rates will in time probably decline. Birth rates seem, in general, to vary inversely with income. If incomes are raised birth rates will fall. Exhortations to multiply and legislation designed to encourage marriage and large families will, it is argued, be less efficacious than higher standards of living.

Within limits, it is possible for the people of any country to industrialize without external aid. By reducing the output of consumption goods and accepting temporarily a lower level of living, the available local factors of production can be used to increase capital equipment. The alternative is to borrow from the outside world, to become debtors. With the funds thus acquired, tools and machines may be purchased and imported, or the home population may build its own tools and machines, purchasing and importing consumption goods.

If industrialization is increased, either with or without external borrowing, certain consequences will follow. As pointed out earlier there seems no reason to assume that trade between countries will

diminish. Instead, if the past is any guide to the future, the aggregate of such trade will be larger. Differences in costs may be narrowed, but industrialization has in the past increased specialization and trade has expanded. Unless self-sufficiency is pushed to an extreme, mutual dependence of food-importing and food-exporting countries will be increased. This will be true also of raw materials and of markets. Hence the current stress on what is called "international economic collaboration."

On the other hand, industrialization is not apt to be an automatic development. In the absence of deliberate encouragement and perhaps active aid, it will lag in some areas. It is more than probable that "economic protectionism" of some kind will be used. As already noted concerning the interwar period, many agricultural countries industrialized and many industrialized countries encouraged the development of agriculture. Both trends were aided by numerous protective devices. The costs were high, and the causes were a mixture of pressure from special groups and of real or fancied national interest. It is only reasonable to expect a similar situation in the years ahead. We shall hear much about "self-sufficiency" and about aiding "infant industries," and there will be added the contention that various protective devices will make possible or more nearly possible a "full employment of resources" within each country.

These contentions should not be brushed aside merely with the assertion that they are "fallacious" or "unsound." There are several considerations that should be placed on the record. In favor of a degree of economic isolation are the arguments already stated. It is hardly to be expected that the government of any country which undertakes the responsibility of full employment of resources, will leave its people subject to the extreme buffetings from the outside world that force on it alternating periods of somewhat feverish economic activity and of acute depression.

But some of the consequences are not to be ignored. If an effort is made to raise agricultural products that in the absence of protection of some type could be imported at less cost, the sacrifice may be considerable. One calculation which illustrates how much this sacrifice may be is given in Table 65. There may be added from the same source a statement (which is given in Table 66) of the spread between the prices of wheat in four surplus-producing countries and the prices in five consuming countries which imposed restric-

TABLE 65

COST OF SELF-SUFFICIENCY IN THREE EUROPEAN COUNTRIES
FOR SELECTED COMMODITIES, 1936

	<i>Total cost of domestic production</i>	<i>Total cost if obtained from foreign sources</i>	<i>Cost of self-sufficiency</i>
Germany			
Barley	\$ 232,000,000	\$ 94,000,000	\$ 138,000,000
Wheat	366,000,000	186,000,000	180,000,000
Pork	1,139,000,000	556,000,000	583,000,000
France			
Wheat	628,000,000	290,000,000	338,000,000
Italy			
Wheat	533,000,000	255,000,000	278,000,000
Total	\$2,898,000,000	\$1,381,000,000	\$1,517,000,000

SOURCE: From a study prepared under the joint auspices of the Universities of Manitoba and Minnesota, entitled *The Mid-continent and Peace*, Minneapolis, 1943, p. 25.

TABLE 66

COMPARISONS OF THE PRICE OF WHEAT (JANUARY, 1936) IN
SURPLUS-PRODUCING COUNTRIES AND DEFICIT-CONSUMING COUNTRIES

<i>Price in surplus-producing countries</i>		<i>Price in deficit-consuming countries</i>	
<i>Country</i>	<i>Dollars per bushel</i>	<i>Country</i>	<i>Dollars per bushel</i>
Argentina	.93	France	1.55
Australia	.99	Austria	1.85
Canada	1.01	Czechoslovakia	1.97
United States	1.06	Germany	2.29
		Italy	2.47

SOURCE: Same as Table 65, p. 23.

tions on imports of wheat. The difficulties in making such price comparisons are great, and the prices, as given, should be viewed only as approximations.

Particularly to be noticed is the calculation in Table 66 of what would have been the cost of the several products if they had been obtained from foreign sources. If Germany, France, and Italy had imported these products instead of encouraging their domestic production, prices would have been stimulated, but no one can know to what extent. Accordingly, the calculations in the table should be viewed as no more than suggestive.

Another consequence is the uncertainties of agricultural output because of its dependence on favorable weather. As shown earlier, agricultural production in the thirties was not subject to cyclical fluctuations but was remarkably steady. In any particular locality,

however, this is not the case. For the world as a whole or for any large area there may be only a moderate variation from year to year, but within a small area the fluctuations may be extreme.

Industry as distinct from agriculture is especially sensitive to cyclical fluctuations. No country can fully eliminate its dependence on imports of some raw materials and on foreign markets for a part of its output, and for some countries this dependence is extreme. These difficulties are, of course, recognized. Accordingly, it is urged that efforts be made to increase international economic co-operation or collaboration.

INTERNATIONAL ECONOMIC CO-OPERATION: SOME MAJOR DIFFICULTIES

There is no magic in such words as "co-operation" or "collaboration." That the maximum of mutual adjustments should be sought is true enough, and that there is a wide and growing area within which they may develop is correct. It would be a mistake, however, not to recognize the limits that exist, or to minimize the difficulties that will have to be overcome. Many years ago some economists wrote about the "economic harmonies" but their more extreme ideas are of interest chiefly to historians of economic thought. Much has been said about "co-operation" between capital and labor, but today it is recognized that the common interests of capital and labor are limited, and that there is a vast field within which they are definitely in conflict. Comparable conclusions are true in world affairs.

Population Changes. With the population trends as they are at present, there is a retardation in the rate of growth in the older and more industrialized areas. Presumably the same trends will in time be evident in the regions not yet industrialized but a large growth in numbers in those countries seems at least probable. Every advance in medical science, including sanitation, means a temporarily lowered death rate. Birth rates may decline and probably will, but for a long time to come a "natural increase" in population is to be expected. Age distribution will be altered as births diminish but it will be many years before this will result in a reduced percentage in the productive and military age brackets. In so far as numbers of human beings are of importance in economic (and military) life, these areas will have an advantage over the regions which have already industrialized and attained higher living standards.

Also, in the absence of offsetting influences, wages will tend to be low where laborers are so numerous. Wage rates and labor costs are by no means the same, but, in many cases, perhaps in China, for instance, it is possible that the low wages paid will mean a real cost advantage.

National Economic Planning. Planning is not new. There has always been some thought for the future. The current discussion is acute because of the recent increase in government planning on a comprehensive scale, interest being particularly roused by what has been done in the Soviet Union. Also, there is a strong feeling that war evidences the vast possibilities that are revealed when the productive resources of a country are thoroughly mobilized and operated. Thus, in the United States, the national income rose from an estimated \$69,000,000,000 in 1939 to a rate of \$159,000,000,000 by the end of 1944.

Behind some of these recent trends and psychological reactions a change has been taking place that is welcomed by some and deplored by others. It is not something that has suddenly appeared but is a matter of slow growth and of a gradual shift in emphasis. The *laissez-faire* or "liberal" attitude contends that there should be a minimum of social control over economic activities. If each unit of a productive factor is free to seek maximum gain, the results we presumably desire will be attained. Each laborer will seek employment where the highest wages are paid. The same will be true of the other factors of production. These returns will be offered by entrepreneurs who discover the possibility of greater profits in one line of production than in another. Profits are possible because the buying public expresses its preference for some economic goods over others. In a "democratic" society, there is nothing to be rated higher than this market demand. In the competitive struggle, we may expect efficiency to be increased and costs lowered. There will be an output of economic goods larger than can be secured in any other way, and the products will be what the public desires.

Yet this automatic "allocation of resources" approach has been profoundly modified. Thus, even in the United States where belief in it is perhaps most prevalent, there have been significant and increasing changes in its application. There has been throughout the history of the country a pronounced unwillingness to leave business to the hazards of the competitive struggle, each loser accepting the consequences. A few illustrations will suffice. Beginning at least

as early as 1816, many lines of business have been aided by protective tariffs with rates that have risen to those of the present Smoot-Hawley Act, as modified by the various reciprocal trade agreements. Railroads were assisted by land grants, agricultural groups by the Agricultural Adjustment Administration. There are public schools with free lunches for the pupils, and hospitals with medical and dental care without cost to the patients. There are public parks and playgrounds and free municipal concerts. There is social security legislation and the Tennessee Valley Authority.

This list is deliberately haphazard and only for illustration. Automatic "allocation of resources" has been replaced to a large degree by the view that, at least in part, the national income should be considered as an aggregate to be allocated to particular groups in accordance with their need or with real or fancied social advantage. What has occurred in the United States has gone still further in many other countries, particularly, of course, in those commonly called totalitarian. But the trend is a general one.

Our concern here is not to join in the debate over this movement but to indicate its bearing on world economics. To the extent that this shift has already occurred or may increase, it is on a national basis. Its effect is to emphasize the interests of each national group with less consideration for other national groups. Each national economy adjusts its productive activities and the distribution of its national income as seems best to itself. Its monetary system is organized and operated with this in view. It has its own tax system, its own pure food laws, its own factory and wage legislation. Plans are made for the future by each nation with emphasis on its own needs. There may be errors in planning and in execution, but the effort of each group to aid and protect its own members may be expected to continue. The tempo of change is constantly increasing, and foresight and planning in this dynamic world are more and more called for even though they become constantly more difficult.

Industrialization and Its Effects. For both military and economic reasons, industrialization is being emphasized. Only an industrialized country can effectively wage war, and the Second World War has intensified the desire in all countries to develop industries which may be helpful in wars that may come later.

But the economic argument as distinct from the military is a powerful one. Unless and until hundreds of millions of people can be brought into higher income brackets, the market demand for

agricultural products, or at least for many of them, does not warrant retaining so high a percentage of the population in the raising of food products. Per capita incomes in agricultural countries are generally low. Apparently a shift of the working population into secondary and tertiary occupations would be an advantage. Also, there are some areas, such as China and India, where many raw materials are abundant.

One of the results of such a shift is increasing interdependence. Not all raw materials used in manufacturing can be found in any one country, and, as emphasized in an earlier chapter, not even the development of synthetic and other substitutes is apt to reduce the aggregate dependence of many lines of production on foreign sources of supply. Then the output must be sold at home or abroad, if production is to continue. For many articles foreign markets will be sought. In many countries, too, the domestic production of food adequate for maintaining past levels of living is possible only at a much higher cost than for imported foods and by the diversion of productive factors from the more lucrative industries. Dependence is not decreased but is increased.

Another of the current objectives today is stability in the employment of resources. Monetary and banking policy, trade barriers of all sorts, exchange controls and other devices, may in the aggregate have failed of their purpose, but in each case there was a more or less intelligent attempt to aid the national group. External forces often operate in a way that is highly disastrous for a given national economy. It will not be enough merely to raise per capita incomes. These incomes must be kept stable.

It has not been countries with low incomes that have been the leading participants in the wars of the twentieth century. Levels of living are among the highest in the world in western Europe and in the United States. Though per capita income in Japan is low by standards elsewhere, it is the highest in Asia and has for years been rising. Those who find in enlarged economic productivity a way of preventing war overlook this. The leading belligerents in both of the recent world wars have been high-income countries. There is no reason to assume that merely raising incomes will prevent future conflicts.

Instead a rise in incomes may add to the possibility of future wars. For this there are at least two reasons. One is that higher incomes seem much more likely if industrialization is increased. To the

extent that this means a growth in heavy industries — iron and steel, aircraft, shipbuilding — there is available a larger capacity for producing war material. This is less true, of course, if the increase is in such lines of production as textiles. The other reason is that the irregularities in production and employment with which the world is still cursed are greatest in the capital goods industries. If, as some argue, it is not low levels of living, but a reduction from the accustomed level that causes discontent and contributes to belligerency, then the possibility of war may be increased rather than lessened by the very changes that raise incomes but do not stabilize them.

In any event, it should be remembered that production has in the past been more regular in agriculture than in manufacturing. This was true in all parts of the world, as was shown in Chapter 7. For reasons there elaborated, there was a reduction of only 1 per cent in agricultural production during the depression of only a few years ago, followed by a rise as the years passed. At no time between 1929 and 1938 did the world production of foodstuffs fall below that of 1929. But production of raw materials fell by 1932 to 74 (1929 equaling 100), of crude rubber to 82, of wood products to 77, of fuels and power to 78, of metals to 43, and of nonmetallic minerals to 63. Fluctuations were the greatest in those lines of production that are most closely connected with industry and particularly with heavy industry. Apparently industrialization will to some extent provide a country with just those products that will permit it to prepare for and to wage war and also make it more susceptible to the cyclical disturbances that encourage economic and perhaps military conflict.

Only a brief reference to the reasons for these industrial cycles is needed. The demand for consumption goods, especially for the non-durable foods, is a direct demand and is relatively inelastic, while their output is not easily controlled. On the other hand, the demand for capital goods is derived and is for durable equipment. Even a moderate decrease in employment will reduce greatly the demand for automobiles and for steel rails. Even in the absence of formal agreements, output will be sharply curtailed because of "administrative control" with a further increase in unemployment and a further decline in demand. The vicious circle is not easily broken.

Physical Rigidity. Thus far our best efforts have not brought an answer to this difficulty. Agricultural production calls for more

equipment today than in the past, but industrial production especially requires a large and specialized plant. If demand for a particular article, electric locomotives, for instance, falls off, productive effort can not readily be turned to some other article. Remarkable shifts have been quickly made in conversion from one line to another under the stimulus of national war effort, and back again. But even under war conditions there was difficulty, and reconversion in various lines may be harder and more prolonged. In times of peace, some plants are apt to lie idle instead of being promptly converted to the production of something else. Large specialized plants, if operated at capacity, have an amazing output, but the very characteristics that commend them, contribute to a rigidity that intensifies many of our strains in an economic world that is increasingly dynamic and irregular in its operations.

Financial Rigidity. Also, there is financial rigidity. This appears most acutely when debts are accumulated. An enterprise secures funds by selling bonds and notes or stock certificates to those who will buy them. Bonds (and notes) are promises to pay a definite amount of money at a future date with a specified amount of interest per annum. The servicing of a debt is ordinarily a fixed charge and does not fluctuate with the volume of business done or with the income of the borrower. Failure to pay these fixed sums when due means, at the best, financial embarrassment and weakened credit and may even result in bankruptcy and suspension of operations. There is thus a very considerable degree of rigidity in financial structures. This is serious because industrial enterprises often find that of their total costs, the larger part may be "fixed" or "overhead," persisting no matter what the volume of production. The result is that a modest decline in receipts may wipe out promptly the margin of safety for the bondholder. Only a slight decrease in sales may take a corporation from the "black" into the "red." To this there should be added that even the passing or reduction of dividends, while not causing bankruptcy, may bring financial embarrassment.

THE DILEMMA

Political and economic organization are intertwined. Government ownership and operation and government control have for decades been increasing. Private business understandings or agreements have more and more government support and are today often

entered into with government co-operation and are frequently agreements between governments, particularly the governments of the producers. Also, these governments are assuming more and more responsibility for the full employment of resources in their respective areas. The tendency is to unify each national economy, often in ways that are in distinct opposition to the interests of the other national economies that are similarly organized.

There is accordingly a dilemma. World-wide interdependence suggests that economic barriers be lowered or entirely removed. The maximum in economic results would be secured by allowing the factors of production and finished goods to move freely. Economic specialization and exchange along the lines indicated by the doctrine of "comparative costs" seems wise. The older formulation of the principle of "comparative costs" has been displaced by the "equilibrium" theory; still, their implications are the same.

But the attitude toward the movement of these factors is one of restriction. It may be, as some have argued, that international migration was on the decline before the rapid growth in immigration barriers after the First World War. But the barriers have been raised and there are no indications that they will be lowered. In fact, many of the countries that are willing to receive immigrants in considerable numbers seem disposed to discriminate among them on racial or ideological grounds.

Just prior to the Second World War, it could be said that there was no important discrimination along national lines in the sale of raw materials and foodstuffs. Cartels, operating often with considerable support from governments, restricted production and exports and at times were able to raise prices to a level that roused bitter criticism. But there were only a few and somewhat minor discriminations in sales. For the most part, the nationals of any country could purchase on the same terms as the nationals having political controls over the producing areas. Buyers from a distance, of course, had higher transportation and other costs but they had access on equal terms with others. When difficulties were experienced, they were usually owing to the lack of foreign exchange with which to pay. This lack of exchange was the result, in turn, of barriers against the sale of their own products in foreign markets. Restrictions, which often were discriminatory, were on their sales and not on their purchases.

Whether this freedom of access to raw materials on equal terms

will continue is another matter. For the present, at least, there is a large body of opinion strongly favoring restrictions against the aggressor nations. How long this will persist no one can say. It will meet the strong desire of all producers to sell as much as possible at the best prices that can be secured. To the extent that cartels, private or governmental, are able to restrict output and to hold prices at a level intended to give the largest net gain, there will be control of production and marketing. It may be that the increase in the number of intergovernmental commodity agreements will bring with it discrimination in sales as between the nationals of different foreign countries. It would be premature, however, to conclude that this will be the case. Desire to restrain the defeated Axis powers from arming for another conflict may be so strong that certain raw materials will be denied them under some form of United Nations agreement. Yet this will encounter the strong efforts of producing groups to sell what and where they can, the amounts that they may wish to export.

There may, then, be discrimination in access to the raw materials of the world or, as seems more likely, there will be access on equal terms to great and small, both victor and vanquished. This would be in line with practice of the past and in harmony with the announced purpose in the fourth principle of the Atlantic Charter. Similar access to trade, that is, to markets, on equal terms is another matter. The practice of economic protectionism, of reserving to a greater or less degree the domestic markets for domestic producers, has grown for a century. Under the conditions that must be faced in the years ahead such a practice is not likely to be reversed. It may instead be accelerated.

First, the reasons for the protectionism of the past will not disappear merely because of our enthusiasm for a new world order. Second, the postwar objective of "full employment of resources" will furnish an additional argument for controls. In various places throughout this volume, attention has been drawn to the difficulties there are in stabilizing the economic life of any country which is dependent on the external world economy. It is not to be expected that no efforts will be made to "protect" each country from outside disturbances. We have noted the tendency to abandon the old "rules of the game" and the introduction of monetary controls. And we have explained the endeavor to prevent the ups and downs in prices and in economic activity that were formerly experienced

as a consequence of large imports and exports of gold. The "international gold standard," as it has perhaps been inaccurately called, will in the future be quite different from that of the past.

New monetary controls will aid but will be inadequate. It is not hard to describe the losses that will be suffered if the present high trade barriers are maintained. On the other hand, it is equally easy to depict the effect on domestic activity if there is a spasmodic dumping of goods produced abroad. The older approaches which rested on the idea of "comparative cost" will be more difficult in the future. With the growth of large capital investments in agriculture and even more in manufacturing, the percentage of overhead costs to total costs has become greater, and in many enterprises the number of by-products has multiplied. The growth in overhead adds to the difficulties of management, and the increase in by-products has emphasized the impossibility of allocating overhead costs among them. To the extent that production and trade are taken over or are supervised by the state, even more costs emerge as overhead rather than variable, and the thousands of products of each country become by-products among which this overhead must be allocated.

INTERNATIONAL ECONOMIC CO-OPERATION AS IT EXISTS TODAY

As a result, there is even more emphasis than in the past on proposals for "international co-operation." Perhaps it is well to remind ourselves to guard against the connotation of the word. "Co-operation" at once brings a sympathetic response — but so does "protection," unless we are on guard. It is frequently said that "protection" may be harmful and that its benefits may be limited. Perhaps the idea of "co-operation" should be examined.

As currently used, "co-operation" still seems to mean that each national group is to retain its identity and will continue to enjoy what is called its "sovereign rights." One who is not trained in international law may properly hesitate to define "sovereignty," but at least to the layman the word connotes a freedom of action toward other groups, except as that freedom is voluntarily modified for a specified purpose and for a designated period of time, through treaties, for example. The layman also has the impression that even specific commitments may be denounced and that this has frequently been done. Whether such denunciations may be viewed as "legal,"

seems to have made little difference unless sanctions could be applied.

This suggests the first caution. It will not do to assume, as many do, that there is an underlying harmony of economic interests so prevalent and all-embracing that we need merely to take it for granted that countries A, B, C, and the rest have no conflict of interests. We have long recognized that this is not true of individuals and of other groups, and there is no reason to imagine that it holds for national groups. The attempts of country A to have "full employment of resources" may be jeopardized by the similar attempts of other countries. Nor will it do to insist that these conflicts of interest are short-run matters and that in the long run they are harmonious. Even if this were true, which it is not in the kind of world in which we live, the long run is so long that often little attention is paid to it.

There are limits, however, in which "co-operation" may be employed. It is possible in some matters to agree on a line of action which will be mutually advantageous. One is in the control of the foreign exchanges. Without again arguing the merits of the particular proposals formulated at Bretton Woods, we may say that a high degree of stability of the foreign exchanges is so important for all concerned, that every effort should be made to attain it, if not by the Bretton Woods plan, then by some other. This also is true of the prompt restoration of productive activity from the destruction of the war.

The same may be said of the ups and downs commonly referred to as the business cycle or as alternating periods of prosperity and depression. Here there is so little agreement in diagnosis and in prescription that it may only be observed that appropriate measures for lessening such fluctuations would be mutually advantageous if they could be devised and applied. As yet, however, the attempts in this direction made by one national group may intensify the difficulties of others. In the ensuing efforts of each to protect itself, the condition of all is worsened — as was quite clearly evident subsequent to 1929.

There are other matters in which the possibilities are less clear. Thus, the economic position of the United Kingdom has been dependent to a high degree on the importation of many raw materials from distant places and on the sale of manufactured products all over the globe. As industrialization proceeds in other countries,

many raw materials are being manufactured and sold nearer to where they are to be found or are grown. Certain exports from the United Kingdom must face this competition and perhaps can not survive it. Adjustments to other lines of production may be made but they take time and are far from simple. In the meantime and for years to come, it is not easy to see how the interests of the British can be fully reconciled or be found to harmonize completely with the interests of other areas.

To take another illustration: Only a few years ago over 50 per cent of the raw cotton grown in the United States was exported. Recently, there has been a great increase in production of cotton in many other parts of the world. Just how this is to the interest of the United States is hard to explain. We may and should point out that all of us will gain by having cotton grown where costs are lowest, and that the growers of cotton in the United States should shift to other lines where they have more of an advantage or less disadvantage, but such shifts are painful, long drawn out, and expensive. In the meantime, it may not be easy to convince many growers in the United States that they should "co-operate" by producing something else.

With this basic dilemma posed by world-wide interdependence on the one hand and by very real conflicts of interest on the other, "international co-operation" is invoked. At once we may assert that it should be utilized to the limit. In the absence of a world government and a world economy, except as we are groping toward it with the United Nations Organization, there is no other approach. But its difficulties are apparent if we note briefly experiences in other connections. Thus, within a given country such as the United States, there are pleas for "co-operation" between "capital" and "labor," but conflicts of interest persist between them. There may be a larger field of common interest than either party may recognize or acknowledge but there is a wide area in which this is not true.

Or notice, also within the United States, intrastate (as distinct from interstate) matters. There is only a limited field within which the federal government has jurisdiction, other matters being left to the states. Efforts at "co-operation" have been made, for example, in connection with taxation. Yet certain states are loath to surrender certain sources of public revenue merely because they are urged to co-operate. And the United States is a country where there is a central government to which some power has been surrendered.

In a world where there has been no such *de jure* surrender, pleas to "co-operate" will bring only a limited response.

Unless and until there can be an actual *de jure* or *de facto* qualification of sovereignty in general or in particular matters, there is accordingly only a limited field in which co-operation is possible. If representatives of actually sovereign countries endeavor to agree, they may first of all learn something about each other that will reveal a larger area of common interest than had been supposed. Surrenders of real advantage by one may be arranged in return for concessions by the other. Germany some years ago was willing to import more French wine than was thought advantageous in return for an agreement by France to permit the importation of more German steel products than would otherwise have been accepted.

But such co-operation has close limits. Various forms of economic and political coercion may be employed, but such methods are not co-operative. It is not easy to see a prompt relief from economic strain in a world where there are real clashes of interest which are actually being intensified everywhere by the multiplication of government functions. This does not mean acceptance of the view that we are on the "road to serfdom." There is no reason, on the one hand, for despondency, nor on the other, for expecting a quick resolution of our world strains. There is every reason for acknowledging the difficulties and for energetically and patiently seeking to resolve them.

APPENDIX

APPENDIX

THE POTSDAM DECLARATION (AUGUST 3, 1945) ON REPARATIONS FROM GERMANY

In accordance with the Crimea decision that Germany be compelled to compensate to the greatest possible extent for the loss and suffering that she has caused to the United Nations and for which the German people cannot escape responsibility, the following agreement on reparations was reached:

1. Reparation claims of the U.S.S.R. shall be met by removals from the zone of Germany occupied by the U.S.S.R. and from appropriate German external assets.

2. The U.S.S.R. undertakes to settle the reparation claims of Poland from its own share of reparations.

3. The reparation claims of the United States, the United Kingdom, and other countries entitled to reparations shall be met from the western zones and from appropriate German external assets.

4. In addition to the reparations to be taken by the U.S.S.R. from its own zone of occupation, the U.S.S.R. shall receive additionally from the western zones:

(A) Fifteen per cent of such usable and complete industrial capital equipment, in the first place from the metallurgical, chemical and machine manufacturing industries, as is unnecessary for the German peace economy and should be removed from the western zones of Germany, in exchange for an equivalent value of food, coal, potash, zinc, timber, clay products, petroleum products, and such other commodities as may be agreed upon.

(B) Ten per cent of such industrial capital equipment as is unnecessary for the German peace economy and should be removed from the western zones, to be transferred to the Soviet Government on reparations account without payment or exchange of any kind in return.

Removals of equipment as provided in (A) and (B) above shall be made simultaneously.

5. The amount of equipment to be removed from the western zones on account of reparations must be determined within six months from now at the latest.

6. Removals of industrial capital equipment shall begin as soon as possible and shall be completed within two years from the determination

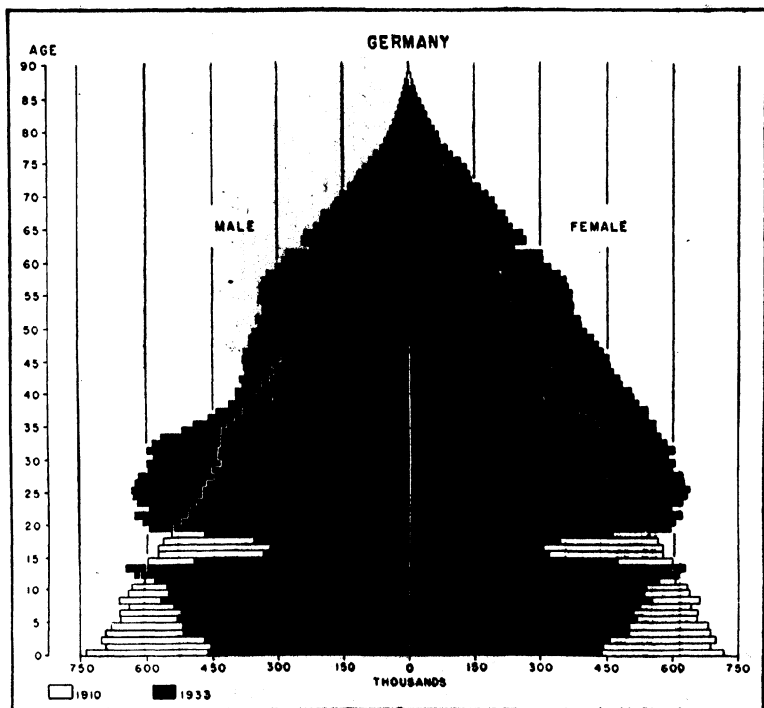


FIGURE 3. Age pyramids for Germany, 1910 and 1933. (From Notestein, Frank, and others, *The Future Population of Europe and the Soviet Union*, Geneva, The League of Nations, 1944)

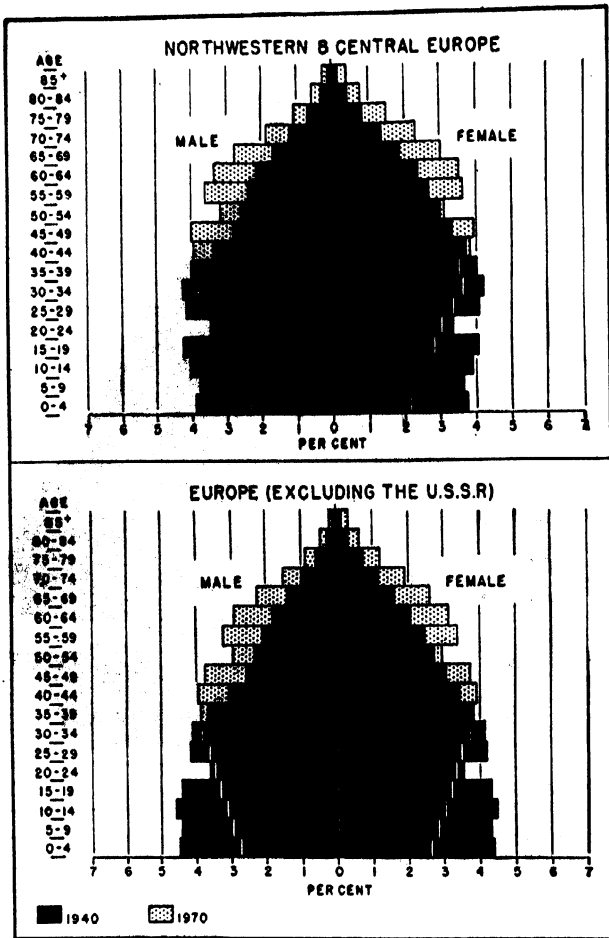


FIGURE 4. Age pyramids for northwestern and central Europe, and for Europe (excluding the U.S.S.R.), 1940 and 1970. (From Notestein, Frank, and others, *The Future Population of Europe and the Soviet Union*, Geneva, The League of Nations, 1944)

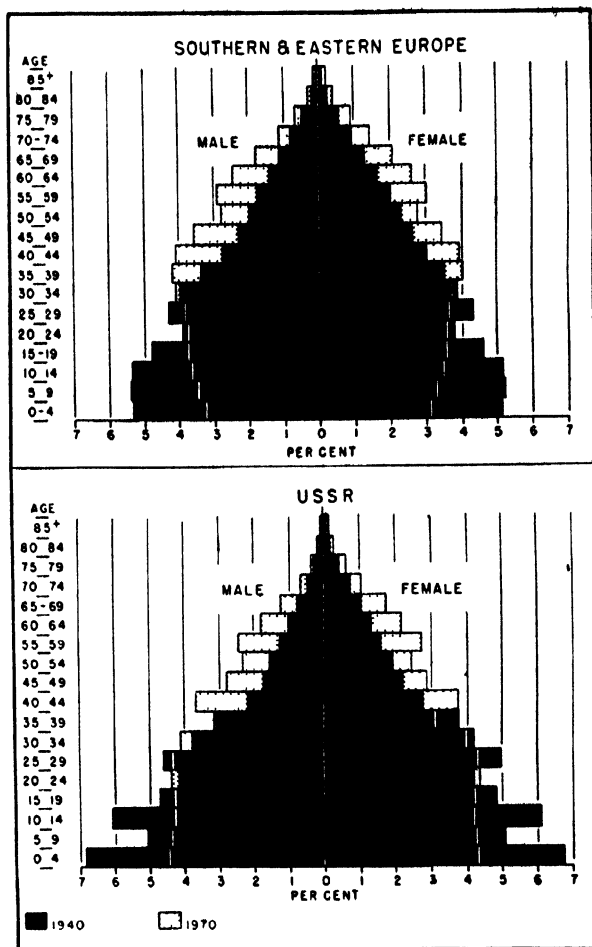


FIGURE 5 Age pyramids for southern and eastern Europe, and for the USSR, 1940 and 1970 (From Notestein, Frank, and others, *The Future Population of Europe and the Soviet Union*, Geneva, The League of Nations, 1944)

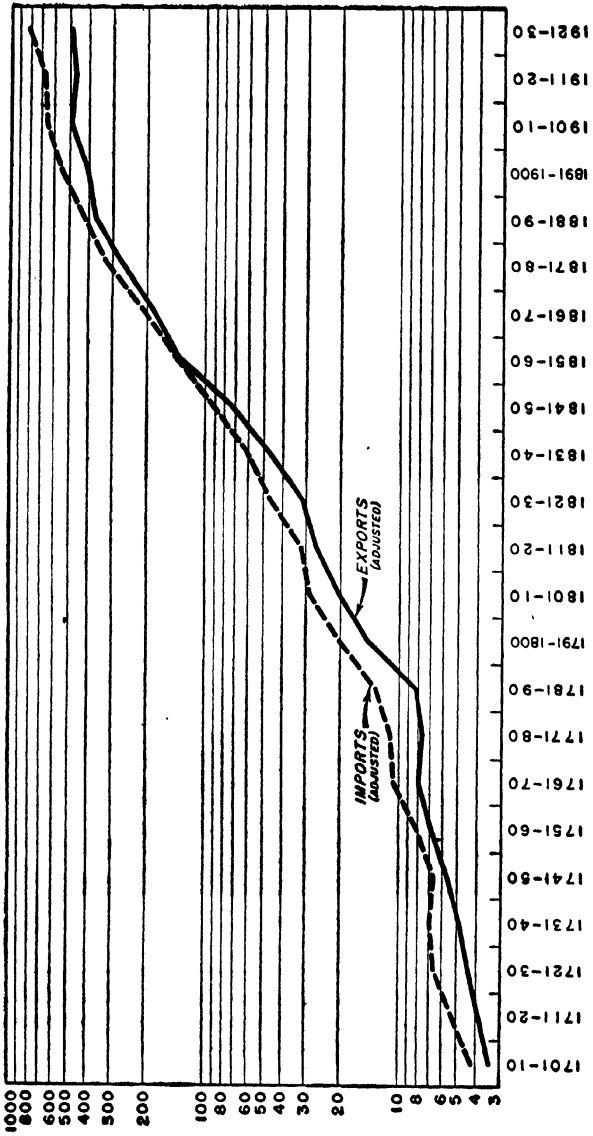


FIGURE 6. External trade of the United Kingdom, by ten-year averages, 1701-1930. (From Staley, Eugene, *World Economic Development*, Montreal, International Labour Office, 1944)

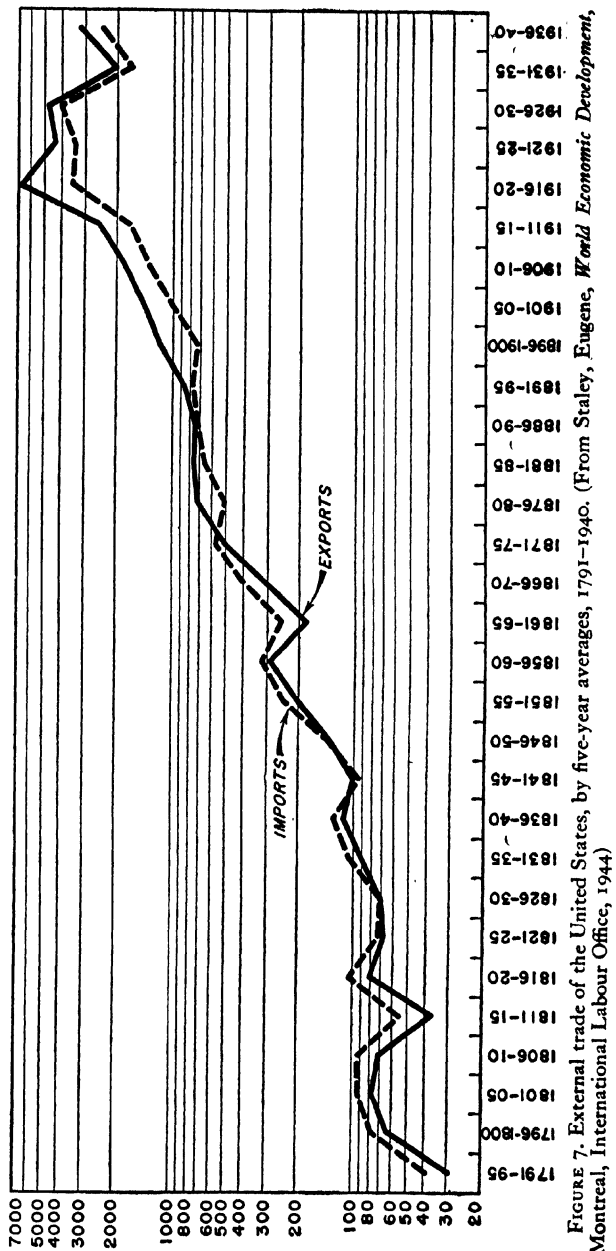


FIGURE 7. External trade of the United States, by five-year averages, 1791-1940. (From Staley, Eugene, *World Economic Development*, Montreal, International Labour Office, 1944)

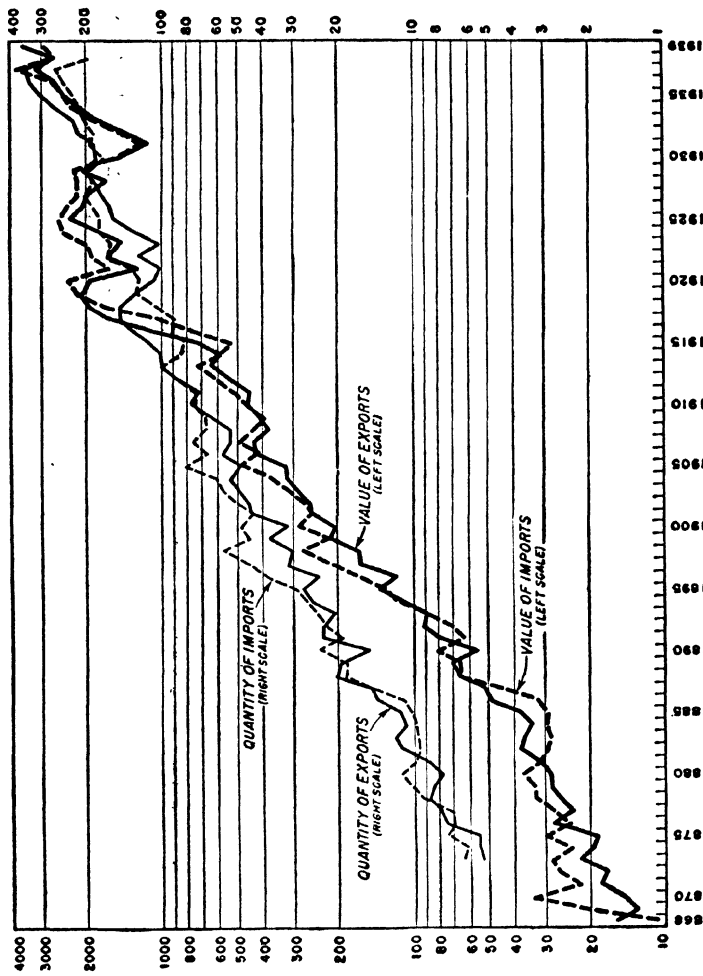


FIGURE 8. External trade of Japan, by five-year averages, 1868-1939. (From Staley, Eugene, *World Economic Development*, Montreal, International Labour Office, 1944)

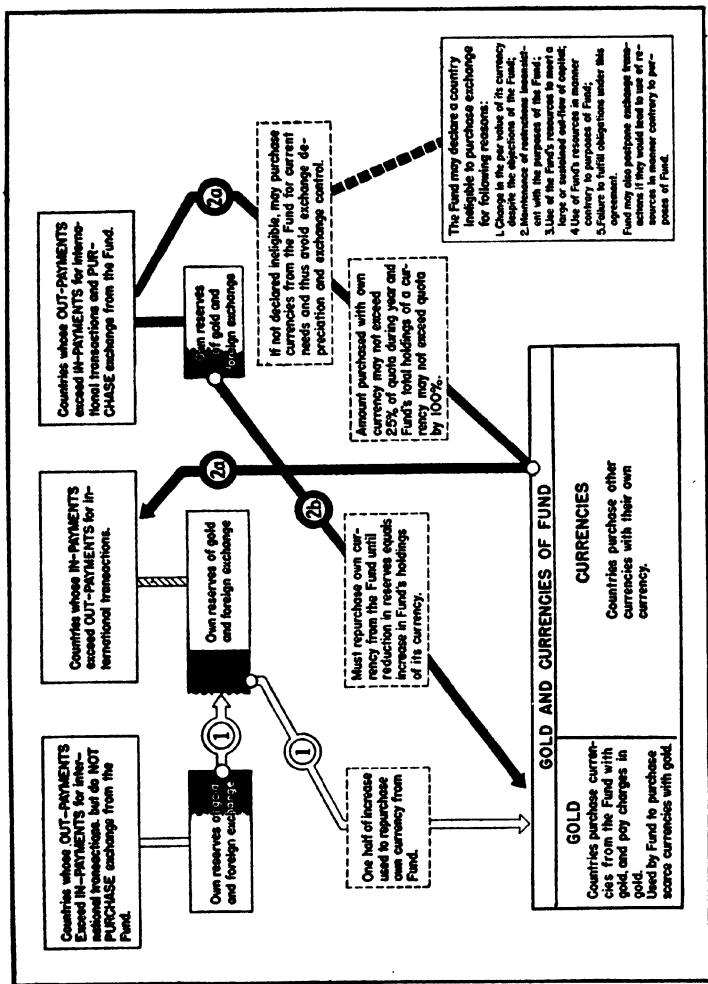
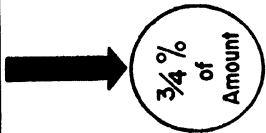


FIGURE 10. International Monetary Fund — Operations in Foreign Exchange. (From *Charts Relating to the Bretton Woods Proposals*, Washington, United States Treasury, April 30, 1945)

All charges payable in gold. If monetary reserves of member are less than half its quota, charges are payable in gold in some proportion. Balance payable in currency



1. Foreign exchange purchased from Fund with Member's Currency



2. Foreign exchange purchased from Fund with Gold



3. Additional charges payable by a country on Fund's holdings of its currency in excess of its quota (average daily balance)

At 4%, Fund and country must consider means of reducing Fund's holdings. *Failing agreement on reaching 5% Fund may impose such charges as it deems appropriate.*

Amount in excess of quota as % of quota*	Percent per annum on amounts in excess of quota							
	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year
0 - 25	After 3 Mos. 1/2	1	1 1/2	2	2 1/2	3	3 1/2	4 1/2
25 - 50	1	1 1/2	2	2 1/2	3	3 1/2	4 1/2	5
50 - 75	1 1/2	2	2 1/2	3	3 1/2	4 1/2	5	5 1/2
75 - 100	2	2 1/2	3	3 1/2	4 1/2	5	5 1/2	6

* On additional amounts the Fund may suit such terms and conditions as it deems appropriate.

* Provided increase does not exceed 25 percent of quota in any one year

FIGURE 11. International Monetary Fund — Charges by the Fund. (From *Charts Relating to the Bretton Woods Proposals*, Washington, United States Treasury, April 30, 1945)

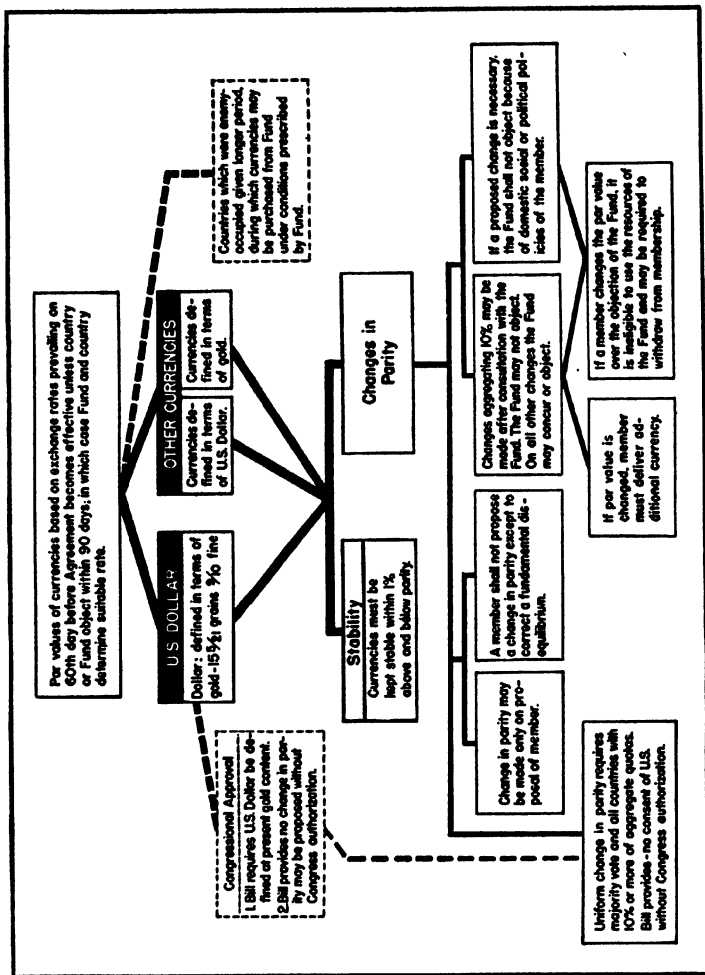


FIGURE 12. International Monetary Fund — Exchange Stability. (From *Charts Relating to the Bretton Woods Proposals*, Washington, United States Treasury, April 30, 1945)

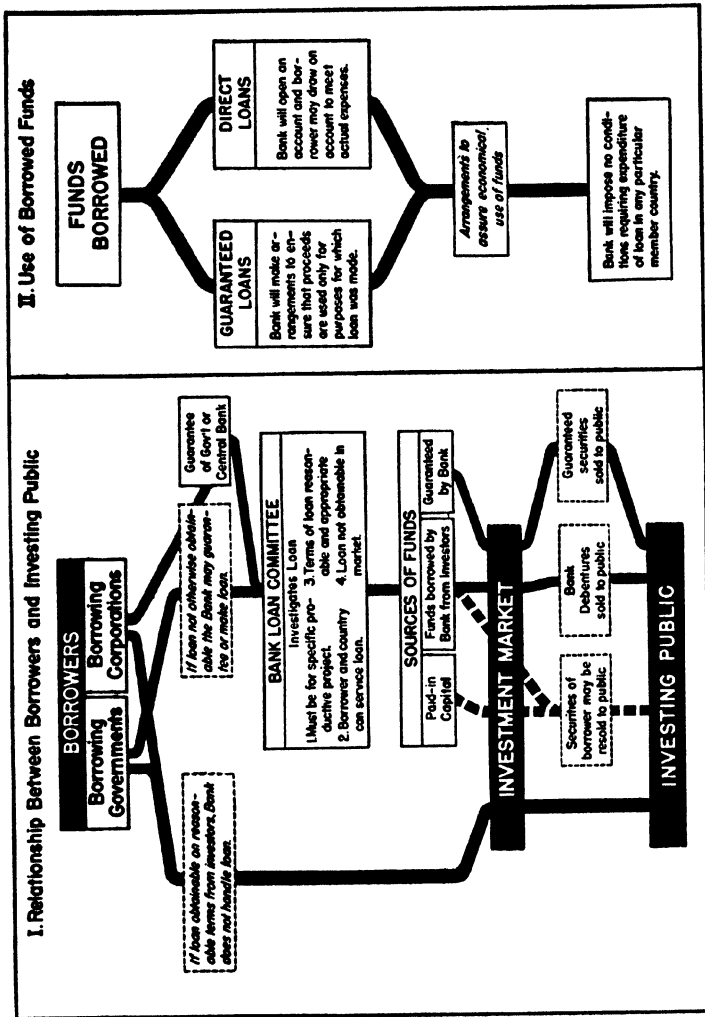


FIGURE 14. International Bank for Reconstruction and Development — Loan Operations. (From *Charts Relating to the Bretton Woods Proposals*, Washington, United States Treasury, April 30, 1945)

TABLE 1
BIRTH RATES, DEATH RATES, AND NATURAL INCREASE OF POPULATION
FOR FIFTEEN COUNTRIES
(Rates per 1,000 inhabitants)

Country	Birth rates			Death rates			Natural increase					
	1911-13	1921-25	1926-30	1938	1911-13	1921-25	1926-30	1938	1911-13	1921-25	1926-30	1938
Australia	28.0	23.9	21.0	16.9	10.9	9.5	9.3	9.6	17.1	14.4	11.7	7.3
Belgium	22.7	20.4	18.6	15.6	15.3	13.4	13.7	13.0	7.4	7.0	4.9	2.6
Egypt	42.3	43.0	44.3	43.4	25.8	25.4	26.2	26.4	16.5	17.6	18.1	17.0
France	18.1	19.3	18.2	14.6	19.0	17.2	16.8	15.4	- 0.9	2.1	1.4	- 0.8
Germany	27.0	22.1	18.4	19.7	14.8	13.3	11.8	11.7	12.2	8.8	6.6	8.0
Greece		23.0	30.2	25.9		16.5	16.6	13.3		6.5	13.6	12.6
Italy	31.7	29.7	26.8	23.6	19.3	17.3	16.0	13.9	12.4	12.4	10.8	10.7
Japan	34.9	34.6	33.5	26.7	20.7	21.8	19.3	17.4	14.2	12.8	14.2	9.3
Mexico		31.9	36.7	39.3		25.5	25.6	22.4		6.4	11.1	16.9
Netherlands	28.1	25.7	23.2	20.6	13.1	10.4	9.9	8.5	15.0	15.3	13.3	12.1
Poland	37.8	34.7	32.2	24.5	21.7	18.5	16.8	13.8	16.1	17.8	15.4	10.7
Rumania	42.6	37.9	35.2	29.6	24.7	23.0	21.2	19.2	17.9	14.9	14.0	10.4
Sweden	23.6	19.1	15.9	14.9	13.9	12.1	12.1	11.5	9.7	7.0	3.8	3.4
United Kingdom*	24.1	19.9	16.5	15.1	13.9	12.2	12.1	11.6	10.2	7.7	4.4	3.5
United States	25.1	22.5	19.7	17.6	14.1	11.8	11.8	10.6	11.0	10.7	7.9	7.0

SOURCE: *Statistical Year-Book of the League of Nations, 1939-40*, pp. 36-39. These figures as given should be interpreted with care. For example, those for the United States cover only the areas for which vital statistics are available, and instead of the period 1921-25 the period 1922-25 is used; figures for Mexico are provisional or approximate, and so forth.

* England and Wales only.

TABLE 2

CHANGES IN LIFE EXPECTANCY OF FEMALES IN TWELVE COUNTRIES

Country	Years	Life expectancy			
		At birth	At 20	At 40	At 70
Australia	1901-10	58.84	47.52	31.47	9.96
	1932-34	67.14	51.67	34.04	10.98
Belgium	1880-90	46.92	43.58	29.17	8.83
	1928-32	59.79	48.43	31.77	9.60
Denmark	1911-15	59.20	48.40	32.00	9.90
	1931-35	63.80	50.00	32.50	9.90
France	1908-13	52.41	44.83	29.75	8.95
	1928-33	59.02	47.40	31.37	9.58
Germany	1910-11	50.68	45.35	29.38	8.35
	1932-34	62.81	49.84	32.33	9.58
British India	1911	23.31	27.96	18.49	6.22
	1931	26.56	27.08	18.23	6.74
Italy	1910-12	47.33	44.64	29.76	8.18
	1935-37	57.49	49.05	32.30	9.63
Japan	1921-25	43.20	40.38	28.09	8.44
	1935-36	49.63	43.22	29.65	9.04
Netherlands	1910-20	57.10	47.50	31.40	9.60
	1931-40	67.20	51.50	33.30	10.20
Sweden	1911-15	59.24	48.13	32.66	10.47
	1931-35	65.33	50.55	33.54	10.51
United Kingdom *	1910-12	55.35	47.10	30.30	9.58
	1937	64.40	50.40	32.78	9.97
United States †	1929-31	62.67	48.52	31.52	9.98
	1940	67.31	51.15	33.01	10.27

SOURCE: *Statistical Year-Book of the League of Nations, 1941-42*, pp. 72-74. The figures are official throughout except that those for the United Kingdom are private for 1937 and those for the United States for 1940. In the United States, life expectancy for Negroes is lower at all ages, except at 70 where it is somewhat higher (11.30 for 1940).

* England and Wales only.

† Whites only.

TABLE 3
CHANGES IN INFANT MORTALITY IN TWELVE COUNTRIES
 (Deaths under one year of age per 1,000 living births)

<i>Country</i>	<i>1921-25</i>	<i>1938</i>	<i>1941</i>
Australia	58	38	40
Belgium	100	73	84
Denmark	82	59	55
France	95	66	73
Germany	122	60	63
British India	182	167	158
Italy	127	106	115
Japan	159	114	
Netherlands	64	37	43
Sweden	60	42	37
United Kingdom (England and Wales)	76	53	60
United States	74	51	45

SOURCE: *Statistical Year-Book of the League of Nations, 1942-44*, pp. 44-45.

TABLE 4

GROSS AND NET REPRODUCTION RATES FOR ELEVEN COUNTRIES

<i>Country</i>	<i>Years</i>	<i>Gross repro- duction rates</i>	<i>Net repro- duction rates</i>
Australia	1920-22	1.517	1.319
	1932-34	1.047	0.955
	1935-36	1.048	0.956
	1937	1.076	0.989
	1938	1.069	0.980*
Belgium	1936	0.958	0.831
Denmark	1911-15	1.671	1.372
	1926-30	1.166	1.012
	1931-35	1.036	0.932
	1937	1.056	0.947
	1938	1.057	0.935
France	1939	1.041	0.919
	1908-13	1.232	0.930
	1925-27	1.146	0.929
	1928-33	1.088	0.905
	1935	1.003	0.866
Germany	1936*	1.010	0.880
	1937	—	0.870*
	1926	—	0.980
	1931	—	0.750
	1933	—	0.700
Germany	1934	—	0.820
	1935	—	0.880
	1936	—	0.904
	1937	—	0.904
	1938	—	0.945
	1939	—	0.982*

* Approximate data.

TABLE 4 — (Continued)

GROSS AND NET REPRODUCTION RATES FOR ELEVEN COUNTRIES

<i>Country</i>	<i>Years</i>	<i>Gross repro- duction rates</i>	<i>Net repro- duction rates</i>
Italy	1931	1.570	1.209
	1935-37	1.425	1.131
Japan	1925	2.599	1.640
	1930	2.372	1.571
	1937*	2.145	1.440
Netherlands	1930-31	1.431	1.280
	1935	1.262	1.145
	1936	1.256	1.140
	1937	1.236	1.119
Sweden	1911-15	1.594	1.288
	1931-34	0.853	0.755
	1935	0.811	0.729
	1936	0.841	0.756
	1937	0.847	0.761
United Kingdom (England and Wales only)	1920-22	1.350	1.110
	1933	0.850	0.730
	1934-36	0.870	0.760
	1935	0.866	0.764
	1936	0.875	0.773
	1937	0.883	0.782
United States (whites only)	1930	1.220	1.078
	1934	1.079	0.969
	1935	1.062	0.961
	1936	—	0.947
	1937*	1.059	0.965
	1938*	1.091	1.003

SOURCE: *Statistical Year-Book of the League of Nations, 1939-40*, pp. 48-49.

* Approximate data.

TABLE 5

PERCENTAGES OF TOTAL POPULATION (BOTH SEXES) OF TWELVE COUNTRIES IN DIFFERENT AGE GROUPS

Country	Years	Age groups			
		0-19	20-39	40-59	60+
Australia	1911	41.7	33.0	18.9	6.5
	1939*	33.8	31.9	23.5	10.8
Belgium	1910	39.8	31.2	19.6	9.4
	1938*	30.4	29.9	25.6	14.2
Denmark	1911	42.7	28.8	18.3	10.2
	1939*	33.0	32.4	22.7	11.9
France	1911	33.8	30.4	22.9	12.7
	1936*	30.8	30.8	23.8	14.6
Germany	1910	43.5	30.4	18.2	7.8
	1937†	30.9	33.1	23.8	12.2
British India	1911	46.8	31.9	16.0	5.2
	1931	49.0	31.9	15.0	4.1
Italy	1911	43.1	27.3	19.0	10.5
	1936	37.7	31.6	19.7	10.9
Japan	1925	46.6	27.9	17.9	7.7
	1935	46.5	28.9	17.2	7.5
Netherlands	1909	44.0	29.2	17.8	9.0
	1937*	37.8	31.4	20.5	10.3
Sweden	1910	41.0	28.1	19.0	12.0
	1937*	30.0	33.1	23.4	13.5
United Kingdom (England and Wales only)	1911	39.9	32.5	19.4	8.0
	1937*	29.9	32.1	24.7	13.2
United States	1910	42.0	33.3	17.8	7.0
	1935*	36.6	31.6	22.5	9.1

SOURCE: *Statistical Year-Book of the League of Nations, 1935-36*, pp. 28 ff., and *1939-40*, pp. 24 ff.

* Estimated.

† Including Austria and the Saar Territory.

TABLE 6
FUTURE POPULATION OF ENGLAND AND WALES
 (As estimated by Dr. Enid Charles)
 (In thousands)

Year	Assumptions*		
	A	B	C
1935	40,563	40,563	40,563
1945	40,876	40,392	40,338
1955	40,207	38,777	43,651
1965	38,504	35,799	43,744
1985	33,106	26,087	41,612
2005	27,090	15,058	38,177
2025	22,121	6,940	35,104
2035	19,969	4,426	33,585

SOURCE: Charles, Enid, *The Effect of Present Trends in Fertility and Mortality upon the Future Population of England and Wales and upon Its Age Composition*, London, The Royal Economic Society, Memorandum No. 55.

* For an explanation of these estimates, see Chapter 1.

TABLE 7
VOLUME OF CERTAIN FOODS IMPORTED (+) OR EXPORTED (-)
BY TWENTY-ONE COUNTRIES IN 1935
 (In thousands of metric tons*)

	Wheat	Cane sugar	Coffee	Bananas	Citrus fruits
Algeria	- 248.0	+ 70.0	+ 14.2	+ 4.5	- 41.0
Argentina	- 3,860.0	- 2.0	+ 22.6	+ 164.0	+ 35.0
Austria	+ 187.0	+ 1.0	+ 5.3	+ 0.7	+ 26.0
Belgium (and Luxembourg)	+ 993.0	- 10.0	+ 48.8	+ 29.0	+ 67.0
Brazil	+ 882.0	- 85.0	- 920.0	- 150.0	- 106.0
Canada	- 4,509.0	+ 407.0	+ 15.5	+ 59.9	+ 115.0
China	+ 512.0	+ 261.0	+ 0.3	—	- 13.0
Czechoslovakia	+ 95.0	- 196.0	+ 11.2	+ 2.7	+ 40.0
Denmark	+ 360.0	+ 57.0	+ 25.2	+ 2.7	+ 11.0
France	- 120.0	+ 106.0	+ 188.5	+ 154.0	+ 292.0
Germany	+ 146.0	+ 9.0	?	+ 68.0	+ 299.0
Italy	+ 550.0	+ 4.0	+ 40.4	+ 14.3	- 313.0
Japan	+ 445.0	- 25.0	+ 3.2	—	- 33.0
Netherlands	+ 493.0	+ 65.0	+ 32.5	+ 39.7	+ 76.0
Norway	+ 183.0	+ 87.0	+ 20.1	+ 6.6	+ 21.0
Peru	+ 139.0	- 324.0	- 2.2	—	—
Sweden	- 79.0	+ 10.0	+ 48.4	+ 8.3	+ 37.0
Switzerland	+ 480.0	+ 150.0	+ 18.6	+ 6.8	+ 35.0
United Kingdom	+ 5,107.0	+ 1,655.0	+ 12.5	+ 292.0	+ 630.0
U.S.S.R.	- 704.0	- 76.0	+ 0.5	—	+ 2.0
United States	+ 1,052.0	+ 2,577.0	+ 795.0	+ 1,248.0	- 231.0

SOURCE: *Raw Materials and Foodstuffs*, Geneva, The League of Nations, 1939, pp. 22 ff.

* 2,352 pounds equals 1 metric ton.

TABLE 8
INDICES OF PRIMARY PRODUCTION IN FOUR CONTINENTS
 (1929 = 100)

EUROPE (EXCLUDING THE U.S.S.R.)								
<i>General index</i>	<i>Food-stuffs</i>	<i>Textile fibers</i>	<i>Oil materials and oils</i>	<i>Wood products</i>	<i>Fuels and power</i>	<i>Metals</i>	<i>Nonmetallic minerals</i>	
1929	100	100	100	100	100	100	100	100
1930	97	98	96	50	97	93	94	93
1931	96	101	90	81	84	85	68	79
1932	96	103	91	66	85	78	49	70
1933	98	105	99	68	96	80	53	75
1934	101	107	110	72	108	86	64	85
1935	102	106	123	84	111	88	73	94
1936	104	107	137	76	121	92	83	102
1937	108	109	158	101	132	100	101	112
1938	109	111	162	76	123	99	100	116
NORTH AMERICA								
1929	100	100	100	100	100	100	100	100
1930	97	103	96	99	88	90	82	96
1931	93	104	116	112	77	79	53	76
1932	84	100	92	91	63	69	27	48
1933	86	100	98	86	74	75	33	49
1934	86	98	78	73	81	79	43	55
1935	85	93	87	93	91	84	54	58
1936	93	96	99	92	106	95	76	77
1937	103	99	139	129	119	103	104	85
1938	95	103	95	100	104	91	66	77
LATIN AMERICA								
1929	100	100	100	100	100	100	100	100
1930	100	104	91	140	100	99	82	77
1931	97	102	91	157	100	87	69	43
1932	94	103	90	112	100	86	39	32
1933	99	108	105	126	99	88	46	27
1934	104	109	119	158	100	104	63	39
1935	105	107	133	137	100	111	67	54
1936	110	113	138	160	100	116	74	59
1937	113	112	146	143	100	133	96	68
1938	114	114	150	143	100	130	90	68
OCEANIA								
1929	100	100	100	100	100	100	100	100
1930	107	111	97	97	91	94	100	91
1931	109	114	106	85	55	83	73	63
1932	119	125	111	81	51	85	93	59
1933	119	127	107	88	62	88	97	63
1934	119	126	105	87	78	91	114	78
1935	123	129	105	93	101	103	127	93
1936	124	129	106	105	110	109	129	109
1937	129	136	107	102	123	113	140	123
1938	126	132	102	106	128	114	139	135

TABLE 9

NATIONAL INCOMES, BIRTH RATES, ARABLE LAND, AND
OCCUPATIONAL DISTRIBUTION

Country	Incomes per capita of occu- pied population in International Units, 1925-34	Birth rates in 1938	Percentage of arable land to total area in 1938	Occupational distribution at recent dates		
				Primary	Secondary	Tertiary
United States	1300-1400	17.6	18.0	24.0	28.9	47.1
Canada		20.5	2.6	32.6	28.5	38.9
New Zealand	1200-1300	17.9	3.0	28.7	27.5	43.8
Great Britain*	1000-1100	15.5	23.1	14.3	39.7	46.0
Switzerland		15.2	12.3	21.7	44.6	23.7
Argentina		24.1	9.1			
Australia		17.5	1.7	25.8	31.2	43.0
Netherlands	800-900	20.6	29.9	22.2	37.2	39.6
Eire	700-800	19.4	18.8	52.3	14.5	33.2
France	600-700	14.6	37.6	40.3	31.2	28.5
Germany		19.7	40.7	33.7	38.1	28.2
Denmark		18.1	63.4	34.8	27.0	38.2
Belgium		15.6	34.2	25.7	29.9	34.4
Sweden		14.9	9.1	46.9	25.1	28.0
Uruguay		19.8	6.1			
Norway	500-600	15.5	2.8	35.9	25.9	38.2
Chile		33.4	7.5	43.6	22.1	33.3
Austria		14.0	23.5	31.9	33.3	34.8
Spain		17.8	31.2	57.7	19.3	33.0
Czechoslovakia	400-500	16.8	41.1	30.1	40.4	29.5
Brazil		22.9	1.1			
Yugoslavia		26.7	30.3	82.3	7.7	10.0
Iceland		19.4		56.4	11.8	31.8
Greece	300-400	25.9	16.9	53.9	15.7	30.4
Poland		24.5	47.7	76.6	8.7	14.7
Japan		26.7	15.8	55.4	19.4	24.2
U.S.S.R.		40.6	11.0	85.1	5.7	9.2
Egypt		43.4	2.2	67.2	10.4	22.4
Hungary		20.1	60.2	59.3	18.6	22.1
Italy		23.6	41.9	56.7	24.0	19.3
Portugal		26.9		51.6	18.0	30.4
Bulgaria	200-300	22.8	39.6	81.3	8.9	9.8
Albania		34.4	10.9			
Cyprus		31.2				
Tunis		32.9	23.4	9.9	28.5	61.6
Rumania		29.6	43.6			
Turkey			9.7			
South Africa		25.0	4.0	33.6	19.3	47.1
Lithuania		22.6	49.3	79.4	6.2	14.4
Syria						
Morocco			17.8			
China	Under 200					
India		34.1	57.0	50.0	16.2	33.8
Netherlands Indies			59.4			

(See text for acknowledgment of sources.)

* England and Wales.

TABLE 10

AREA, POPULATION, AND FOREIGN TRADE (IMPORTS PLUS EXPORTS)
IN 1938 FOR SEVENTEEN COUNTRIES

<i>Countries</i>	<i>Area</i> (000/km ²)	<i>Population</i> (000)	<i>Trade</i> (000,000 old dollars)	<i>Trade</i> (per km ² in old dollars)	<i>Trade</i> per capita in dollars
Belgium-Luxemburg	32.6	8,697	882.0	27,147.23	101.41
Netherlands	33	8,834	797.1	24,154.54	90.22
United Kingdom	244	47,735	3,836.7	11,625.82	80.37
Switzerland	41	4,206	392.2	9,565.85	93.20
Denmark	43	3,825	407.0	9,465.11	106.32
Germany (1933 boundaries)	470	69,317	2,546.6	5,418.29	36.73
France	551	41,950	1,301.5	2,362.07	31.02
Japan	382	72,520	890.5	2,331.15	12.27
Italy	310	43,864	668.3	2,155.80	15.23
Sweden	449	6,341	583.0	1,298.44	91.94
Cuba	114	4,253	146.8	1,287.71	34.51
Finland	383	3,684	214.4	559.79	58.19
Union of South Africa	1,222	10,251	576.4	471.68	56.24
Argentina	2,793	13,132	520.3	186.28	39.62
Canada	9,569	11,368	960.3	100.44	84.47
United States	7,839	131,416	2,957.0	377.21	22.50
U.S.S.R. (including Asia areas)	21,176	172,000	300.9	14.49	1.78

SOURCE: *Statistical Year-Book of the League of Nations, 1940-41*, Geneva, 1941, *passim*.

TABLE 11

COMPARATIVE TARIFF LEVELS IN NINETEEN COUNTRIES (1937)

(United States = 100)

Spain	465.	United Kingdom	118.3
Turkey	359.6	Argentina	110.
Germany	279.	United States	100.
Brazil	239.4	Japan	98.
Greece	166.	Belgium	96.8
Hungary	160.	France	85.
Italy	150.5	Canada	76.3
Mexico	149.	Netherlands	37.4
Egypt	130.	Sweden	32.8
Switzerland	128.		

SOURCE: *How High Are United States Tariffs?* New York, American Tariff League, Inc., 1942:

INDEX

- Abortion, 64-65, 67
Abyssinia, 91, 545
Accounts: international and interregional, 207-48, 251, 396, 499; as assets, 210; individual, 210, 213, 220, 243; corporation, 210-11, 220; government, 211, 215, 217; current, 236-37, 245, 465-66; U. S., 245, 415-16, 503; blocked, 288, 365-66, 514-15, 547, 554-55, 568; cost, 336; open book, 396; bank, 398, 450; amortization, 595
Advances, foreign, 499
Advantages: abundance, 293-94; absolute, 294-96; comparative, 296-98
Aegean Islands, 34
Africa: population, 4-5, 52-53, 97, 115, 155, 163, 184, 279; settlement, 28, 37-38, 52-53, 97; European control, 33; water supply, 52, 103-104; climate, 52-53; colonies, 90; area, 90-91, 279; standards of living, 115; production, 121, 129; incomes, 155-56, 158, 163; food, 163; trade, 224, 258, 279-81; U. S. investment in, 387, 425 (*see also* North Africa; South Africa; Union of South Africa)
Age distribution, 10, 14, 17-25, 59, 137, 184, 633, 652-53, 668
Age expectancy, 184, 192
Agencies: government, 313, 415, 515, 529, 571; international, 558-59, 582, 614, 616; United Nations, 560-61, 580, 614
Agreements: bilateral, 281-82, 354-57, 363, 376, 617, 621-22; international, 304, 441-44, 558, 580, 591, 616-18, 629, 640; clearing, 322-23, 354-55, 509, 511, 514, 568, 618; compensation, 322-24, 354, 509, 511, 572-73, 618; trade, 350, 354, 363-64, 616-18, 622, 626-27, 635; commercial, 352-69, 373; triangular, 356; regional, 370-80; standstill, 412, 420, 481, 495; administrative control, 637; business, 638-39
Agricultural Adjustment Administration, U. S., 108, 170, 326, 600, 635
Agricultural production: increased, 62, 115-16, 169, 196-98, 203, 611; output, 63, 81, 83, 85, 91, 109-10, 161, 169-71, 174, 183, 196-98, 203, 260, 306, 331, 611; uncontrolled and unbalanced, 63, 166-67, 169, 600; prices, 110, 114, 118-19, 144, 170-71
Agricultural productivity, 80-83, 87, 93
Agricultural products: prices, 95-96, 114, 118-19, 144, 595; export-import trade, 110-13, 115, 244, 289, 612, 620; demand, 116, 170; general, 122, 166, 169, 183, 234, 271-72, 306-307
Agriculture: population in, 36, 38, 46, 50, 63, 83, 85, 140-42, 146-47, 153, 158, 160-61, 182-83, 184, 203, 256, 331, 602-603; land suitability, 43-45, 78-79, 148; government controls and aid, 56, 108-109, 115, 122, 170, 182, 183, 197, 600; climate, 79, 81, 83, 85, 88, 91, 112, 114, 144, 169, 251, 260, 600, 632; policies, 107; small-scale enterprise, 108, 169; diversification vs. specialization, 113-14; expenditures, 144; supply and demand in, 167-71; cyclical fluctuations, 632-33, 637; investment in, 641
Agrobiology, advances in, 54-56
Air lines, 97, 273, 625, 628-29
Air-conditioning, 48, 86
Aircraft and planes, 541, 637
Alaska, 91, 258
Albania, 483, 671
Alcohol, 117, 166
Algeria, 34, 156, 256-57, 669
Allied Commission on Reparations Control Council, 573, 648
Allied governments, 357, 366, 404, 407, 423, 438, 494, 515
Alloy, 452
Alsace-Lorraine, 404
Alsberg, Carl L., 43-44, 46
Altitudes, agriculture, 42-43, 52
Alum, 432
Aluminum, 145
American Anthropological Association, 189
American Relief Administration, 408
American Tariff League, Inc., 320
Amusements, individuals and, 237
Anglo-American Financial and Commercial Agreement (1945), 618, 626
Animals and animal products, 114, 117, 134, 183, 255-57, 289-90, 324, 608, 614
Annual Review of World Trade, 231
Annuities, terminable, 409
Anschluss, Germany and Austria (1931), 372, 377-78, 401, 419, 502-503

- Antarctic region, 22
 Antitrust laws, 121, 326, 431, 437, 442
 Arable land: population and, 42-45, 55, 62, 140-43, 152-53, 172, 195; available, 42-45, 78, 83, 144-46, 148, 153, 671; productivity, 196
 Arctic region, 42, 138
 Areas, geographic, 3-25, 178, 376, 601, 672
 (see also Regions; Continents; Countries; Land areas)
 Argentina: migration, 28, 37, 53; population, 44, 139, 142, 152, 261, 671-72; export-import trade, 111-12, 261, 319, 355, 507, 547-48, 594, 632, 669, 672; production, 112, 299; income, 151, 156, 671; area, 261, 299, 671-72; finance, 355, 384-85, 391, 418; foreign exchange, 483-84, 504, 507, 513
 Arid regions, 79
 Armies, standing, 270
 Armour & Company, 306
 Art treasures, 148, 333
 Articles of Agreement, Bretton Woods, N. H., 558
 Arts, state of the, 61-63, 65, 104, 121, 174-75, 177, 183, 191, 196, 230, 285
 Aryans, 189
 Asceticism, 160, 191
 Ashley-Montague, M. F., 190
 Asia: population, 4-5, 59, 65, 83, 114-15, 138, 155, 163, 182, 184, 186, 205, 279; migration, 27, 32-33, 36-37, 39-40, 177, 544; European control in, 33; food and agriculture, 44, 83, 127, 129-30, 163, 434, 607, 623; southern, 44, 607; income, 65, 83, 155, 163, 636; eastern, 83; industry, 101, 257-58; standards of living, 114-15; south-eastern, 127, 129-30, 177, 229, 434, 623; trade, 224-25, 258, 279-81; finance, 229, 387, 425-26; area, 279
 Assets: business, 122, corporation, 210-12, 216; individual, 212, 243; domestic, 212-13, 485; British, 389, 477, 490, 554-55, 568; capital, 389, 554-55, 620; bank, 412, 485, 487, 503, 531; U. S., 414-15, 502-503, 505, 513; nondepreciating, 418; gold as, 459, 528; reserve of, 483-84, international, 485; French, 488, 491; foreign exchange, 488, 499, 513-14; liquid, 507, 528; occupied countries, 569; German, 573, 575; International Monetary Fund, 586
 Assignats, French, 455-56
 Assyrians, 26
 Atlantic Charter, 179, 367, 441, 640
 Atmosphere, 46, 78
 Atomic energy, 104, 303, 309, 538
 Australasia, 103-104
 Australia: population, 12-13, 44, 49, 85, 139-40, 142, 663-66, 668, 671; migration, 28, 49-50, 146-47; settlement land, 36, 48-51; climate, 47, 49-50, 85-86; agriculture, 49-51, 85-86, 92, 98, 112, 177, 632; productivity, 49-51, 177, 195; export-import trade, 50-51, 112, 170-71, 262, 280, 319, 547, 549; industry, 50, 671; minerals, 51, 91, 93, 121, 177, 195, 294; income, 149, 151, 156, 202, 262, 671; finance, 384-85, 391, 567, 657, 661; gold standard, 483, 504
 Austria: population, 16-17, 668, 671; export-import trade, 111, 233, 319, 323, 432, 669; income, 149, 671; agriculture, 153, 632, 671; occupations, 153, 671; *Anschluss*, 372, 377-78, 401, 419, 502-503; finance, 394, 499, 573, 648; gold standard, 483, 498
 Autarchy (see Self-sufficiency)
 Automobiles, 76, 93, 118-19, 127, 160, 177, 600, 637
 Axis, 563, 569, 593, 640
 Babylonians, 26
 Baker, O. E., 42, 197
 Baking companies, 108
 Balance: definitions of, 236-38, 243; restoration of, 244-45
Balance of International Payments of the United States, The, 209-10
 Balance of payment form, standard, 218-19
 Balance of payments: international, 209-19, 223, 235-36, 238-40, 243-45, 325, 346, 379, 414, 529, 578, 619; United Kingdom (see United Kingdom, balance of payments); favorable, 216, 428; balancing of, 216-17; U. S. (see United States, balance of payments); Nazi-controlled Europe, 229-31; Latin America, 234; individual, 236-37; theory of, 236-48; corporation, 237; countries, 240-43, 244-47; equilibrium, international, 243-48, 361, 374, 455, 487, 514, 533, 584, 586; large repayment disturbance of, 426; credit and debit items, 466, 533; future, 529; prices, 552
 Balance sheet: form, 210-11; national, 212-13, 217, 219-20; corporation, 216; British, 217; U. S., 227
 Balance of trade: vs. balance of payments, 215-16; favorable and unfavorable, 216, 269-71, 547; general, 238-43, 254, 282, 396, 486; active to passive, 271, 320
 Balances: bank, 218, 245-47, 396, 484, 592; brokerage, 221; short-term, 499, 533, 568; blocked, 547, 593
Balances of Payments, League of Nations, 228
 Balbo Mass Colonization and Development Plan for Libya, 37-38
 Baldwin, Stanley, 377

- Balkans, 409, 605
 Baluchistan, 140
 Bananas, 79-80, 111, 113, 266-67, 269, 295,
 332-33, 669
 Bank of England, 459, 481, 485, 489-90, 499,
 503-504, 512
 Bank of France, 458, 481, 488, 490, 499, 502-
 503
 Bank of Germany, 460, 481
 Bank of Hamburg, 404
 Bank holidays, 504
 Bank for International Settlements, Basle,
 Switzerland, 464, 503
 Bankers: European, 393, 400, 402, 412, 503;
 investment, 393, 424-25; syndicate, 397-
 98; U. S., 398, 400, 402, 412, 489, 503;
 money exchange, 465; price fluctuations,
 582
 Banking: policy and systems, 309, 400, 636;
 houses, 392
 Bankruptcy, 247, 271, 420-21, 441, 553, 638
 Banks: loans, 110, 170, 460, 468-69, 486;
 corporation accounts, 210; foreign, 245,
 415; government control of, 274, 307, 340,
 450; U. S., 276, 401, 460, 468-69, 476, 481,
 486, 489, 503-505; failure, 412, 419; central,
 412, 419, 458, 460, 469, 480, 483-88, 499,
 508, 513, 523, 527-28, 531, 585, 587, 662;
 commercial, 412, 419, 490; gold, 458-59,
 468-69, 476, 482, 485, 487-88, 504, 508,
 523, 525, 527-28, 531, 585; foreign ex-
 change reserves, 458, 476, 484; world, 464
 (*see also* International Bank for Recon-
 struction and Rehabilitation); effect on
 production and exchange, 466, 496; British,
 468-69, 481 (*see also* Bank of England);
 fund shifting effect, 488; New York, 499,
 503; French, 504 (*see also* Bank of France)
 Bargaining power, 354, 356-57, 375, 572
 Barley, 608, 632
 Bastiat, Frederic, 274
 Beef, 106, 306, 326
 Beet sugar (*see* Sugar beets)
 Behavior, national differences of, 189
 Belgian Congo, 130, 427
 Belgium: population, 14, 16, 67-68, 139-42,
 299, 663-66, 671-72; migration, 33; agri-
 culture, 110, 143, 671; standard of living,
 111; trade, 111, 260-61, 283, 301, 319, 373,
 669, 672-73; production, 142, 260, 293,
 395, 432, 671; income, 149, 168, 299, 395,
 575, 671; natural resources, 299; finance,
 384, 399, 562, 569, 575, 657, 661; monetary
 standards and currency, 454, 483, 501, 508,
 513-15, 528, 618
 Benefits, British to U. S., 567
 Bengal, 66, 140
 Berlin, 64, 260, 403, 471, 546
 Bernal, J. D., 62
 Bertillon, Jacques, 64
 Beverages, 289
 Beveridge Plan, 274
 Bidwell, Percy, 324
 Bilateral action, 354-55, 590
 Bilateral agreements (*see* Agreements, bi-
 lateral)
 Bilateral trade (*see* Trade, international,
 bilateral)
 Bills, foreign, 484, 493
 Bimetallism, 452-54; 458, 462, 496, 517,
 519, 530
 Biology, and people, 52-53, 57, 187-90, 537,
 539
 Birth control, 10, 64-67, 174, 204
 Birth rate: decline, 6-7, 10-11, 13, 20-21, 34,
 59, 63-65, 67, 184-86, 203-204, 495, 630,
 633; world, 6-11, 13-14, 17-18, 20-21, 23,
 663, 671; vs. death rate, 10-11, 13-14, 20;
 migration, 30, 54; increase, 30, 57, 70, 187;
 incomes, 59, 63-65, 134, 152-53, 395, 630;
 government and, 59, 66-70; religion on,
 64, 66; rural and urban areas, 64, 67; war
 on, 70; various countries, 663
 Black market, 309, 494
 Blockades, 112, 354, 394
 Blocked accounts (*see* Accounts, blocked)
 Blocked currencies (*see* Currency, blocked)
 Blocked funds (*see* Funds, blocked)
 Board of Trade, United Kingdom, 213
Board of Trade Journal, 213
 Bolivia: tin, 130, 235, 293, 402, 559; immigra-
 tion, 177; currency and monetary standard,
 483, 504, 618; International Fund and
 Bank, 657, 661
 Boliviano, 559
 Bond issues, 270, 392-93, 397
 Bondholders, 210, 215, 638
 Bonds: sales of, 211, 405, 409, 638; govern-
 ment, 215, 237-38, 241-42; foreign, 215,
 386-87, 397-98, 408, 420-21, 465; United
 Kingdom, 218; corporation, 237-38, 241-
 42; payment promises, 396; French govern-
 ment, 404-405; German reparations, 405-
 406; long-term, 408, 519; railway and in-
 dustrial, 418; serial, 418, 428; tax free,
 428; interest on (*see* Interest, bond)
 Boom, speculative, 244
 Borrowers: reasons for borrowing, 242, 386,
 393, 397; countries as, 383, 385; capital
 for, 398-99; loan servicing, 399-400, 530;
 tying clauses, 400; income, 402-403, 594-
 95, 638; productive use of loan, 402-403,
 427, 486; German, 403, 419, 423; standards
 of, 417; short-term loans, 419; Allied gov-

- ernments, 423; balance of payment, 428; post-war, 577; International Bank, 662
- Borrowing: reasons for, 204, 393-94; for industrialization, 204, 630; European, 233; general, 237, 486, 493; foreign, 243, 427, 586; productive, 579
- Boston, 237, 281
- Boundaries, national, 29, 377, 544, 591, 619
- Boycott, economic, 354
- Brazil: migration, 28, 53; coffee, 92, 114, 234-35, 399, 442, 624; export-import trade, 111, 113-14, 282, 669, 672; population, 139, 141, 152, 671; finance, 384-85, 657, 661; gold standards and payments, 483, 504; income, 671
- Bread, 108, 119, 163, 165, 167-68, 199
- Bretton Woods Conference, 532, 610, 616, 642
- Briand, Aristide, 110, 372
- Bribery, to encourage borrowing, 393
- British Commonwealth of Nations: gold payments and sterling area, 310-11, 504, 507, 618; export-import trade, 356, 374-77, 379, 547
- British Dominions, 375-76, 618
- British Empire, 283, 504, 564 (*see also* Great Britain; United Kingdom; England; Wales; and above)
- British India (*see* India)
- British Malaya, 130
- British mandated territories, protectorates, and protected states, 311
- British West Indies, 28 (*see also* West Indies)
- Brush bristles, 166
- Budgets, government, 358, 498
- Buildings, 300, 306, 545
- Bulgaria: population, 13, 16, 204, 671; agriculture, 110, 143, 204, 671; gold standard and currency, 483, 495; finance, 573, 648; industry, 671
- Bullion, British, 213-14
- Bunker fuel, 221-22
- Burky, Charles A., 192-93
- Burma, 288, 544, 571
- Burns, Arthur R., 430
- Business: cycles and fluctuations, 104, 118, 134, 182, 196, 265, 318, 353, 520, 531, 540, 642; general, 122, 364, 513; men, 159, 273, 288, 360, 393, 398, 465, 510, 546, 581; relations, 171; practice, 211, 275, 305; corporations and holding companies, 237, 329, 348; volume, 265, 275, 638; government planning and controls, 307, 309, 515, 552, 635; private, 308-309, 349-50, 443; trade, 313-14, 346, 352, 365, 374, 441; decline, 318, 326, 362, 510; and investments, 392-93, 441; bank loans, 393, 459-60; indebtedness, 410, 553, 638; gold, 455, 468-69, 470, 476, 485, 520, 531, 533; fund shifting on, 485-86, 488
- Butter, 51, 234, 461
- Buttons, 120, 272, 306
- Buyer's market, 159
- Buyers: various, 125, 312, 410, 625; dumping effect, 342-43; discrimination vs., 368, 639-40; foreign, 406, 595
- By-products: agricultural, 117, 120, 271-72, 306-307; industrial, 271-72, 306-307; cost allocation, 275-76, 308, 338, 341
- California, 39, 91, 337
- Calories, diet, 106, 231, 613
- Cambridge, Mass., 33-34
- Canada: population, 16, 44, 51-52, 85, 139, 141-42, 261, 263, 671-72; migration, 28, 39, 146-47; standard of living, 44, 52; area and settlement land, 48-52, 261, 263, 672; export-import trade, 50, 52, 111-13, 261, 263, 280-81, 295, 319, 547-48, 582, 669, 672; agriculture and resources, 51, 79, 129, 143, 295, 332-33, 632, 671; climate and geography, 51, 86; production, 51, 332-33, 393, 671; income, 86, 115, 149, 151, 156, 202, 262, 333, 671; finance, 384-85, 387, 391, 401, 421, 425, 554, 567, 587, 617, 661; currency and monetary standards, 483, 504, 507, 513, 585, 618; prices, 501, 553; air lines, 628-29
- Capital: production factor, 36, 192, 195-96, 204, 241-42, 265, 299-301, 395; for immigrants, 38; and natural resources, 108, 121, 134, 174, 177; investment, 108, 265, 332, 348, 397, 407; returns, 120-21, 328, 430; activity, 181, 211, 217, 219, 245, 247-48, 308, 333, 347, 401-402, 592; German, 201, 394; for economic optimum, 203; corporation, 211; short-term transaction, 217, 219; imports, 241, 270-71, 411, 414, 618; and trade, 263, 314, 328, 618; U. S., 289, 529; costs, 298; foreign, 385, 392, 414; working, 394, 401, 428, 530, 575-76, 579, 592-93; money, 398-99, 402; instrumental, real, 398-99, 402, 413, 592, 594; borrowed, 398-400; fixed, 401, 428, 530; flights of, 401, 481-82, 485, 490-91, 500, 502, 512, 525, 528-29, 592; definition, 540-41; International Fund, 565; reconstruction, 575, 592; International Bank, 594; and labor, 633, 643
- Capital equipment: general details, 203, 271, 273, 293-94, 395, 427, 431, 582, 605, 620, 630, 637; U. S., 293, 414; European, 293, 427; mobility of, 300; German reparations, 573-76, 647-48

- Capital funds, 273, 300, 398-99, 400, 411, 418, 427, 594
- Capital gains, 210
- Capital goods (*see* Goods, capital)
- Capital issues, British, 391
- Capital items, 219, 221-23, 225-27, 230, 237
- Capital losses (*see* Losses, capital)
- Capital movements: long-term, 221-22, 225-27, 238, 243, 246-48, 487, 491, 529; various, 236, 238, 300-301, 426, 466, 494; short-term, 238, 243, 247-48, 487, 491; restraints and protections, 315, 328, 354, 422, 491; and organization, 381-444; nature of, 397-412; France, 491
- Capitalism, 181, 431
- Capitalist industrial organization, 38
- Car trust certificates, 418
- Carbohydrates, 106, 164, 231
- Carbon, 102
- Carey, Henry C., 274, 330
- Carlyle, Thomas, 61, 173-75
- Carr-Saunders, A. M., 51, 65
- Cartels: development of, 125, 275; general details, 272, 313, 320, 430-44, 496, 552, 614; government and, 304, 310, 431, 433, 441, 443, 552; and trade, 310, 626, 639-40
- Cash, 210, 225, 418, 428
- Casks, wine, 254
- Cassel, Gustav, 473, 518, 525
- Catholics, 64
- Cattle, 120, 166, 272, 461
- Caucasus, 91
- Caviar, 230
- Central America: population of, 4-5, 27-28, 33; general, 165, 507; export-import trade, 280-81; U. S. investment in, 387, 425-26 (*see also* countries listed separately)
- Central Banking Enquiry Committee, 115
- Ceramics, 432
- Cereals, production and trade, 113, 183, 607, 614
- Certificates: gold, 459, 476, 486, 505; stock, 638
- Channel Islands, 151
- Charles, Dr. Enid, 21, 24, 65
- Checks, as money, 450-51
- Cheese, 106
- Chemicals, 285, 289, 316, 432
- Child labor, 97, 274, 328
- Chile: population, 7, 9, 13, 152, 671; minerals, 76, 92, 145, 177, 285, 294, 301, 624; trade, 145, 301; incomes, 156, 671; productivity, 195, 532; finance, 384, 657, 661; gold payments and standards, 483, 504; occupation, 671
- China: population, 6, 32, 51, 65, 138-40, 194, 286, 671; migrations, 47, 544; food and agriculture, 65, 151, 163, 608, 612, 636, 669, 671; production, 92, 104, 130, 395, 634, 671; income, 151, 163, 194, 286, 395, 671; trade, 356, 669; foreign affairs, 377-78; finance, 384-85, 391, 395, 399, 401, 564, 582, 584, 587, 661, 657; currency, 495, 513, 585; prices, 551, 553
- Chrome, 133
- Churchill, Winston, 179
- Cities (*see* Urban areas)
- Citrus fruits, 111, 113, 669
- Civil Aeronautics Administration Board, 97
- Civilization, 83-88, 127, 177
- Claims: various, 212, 418, 426, 498-99, 503; British, 214, 218, 288, 390, 458; foreign, 215, 218, 288, 568, 617; U. S., 288, 564-66, 593, 617; reparations, 404-408, 419, 569, 570, 572-75, 592; on banks, 419, 458; German, 419, 568; lend-lease, 564-66, 593
- Clark, Colin, 93, 111, 148-52, 155, 157, 163, 194, 610
- Classes, population, 63, 98, 174, 192
- Clay products, 647
- Clearing agreements (*see* Agreements, clearing)
- Clearing system, international, 483
- Climate: effect on man, 12, 46-48, 78, 83-88; migration, 46-48, 57, 293, 300; human control of, 48, 79, 83, 86, 88, 108, 114, 169; on agriculture, 75, 78-79, 81-85, 87, 251, 260; on economics, 78, 260; on national attitudes, 87, 188, 539
- Cloth, 466, 595
- Clothing, 12, 48, 54, 78, 86, 88, 123, 160, 166-67, 198, 237, 260, 275, 308, 541, 603, 608
- Coal: production, 49-50, 92, 99-100, 117, 119-21, 177, 295, 308-309, 355, 411, 477, 575, 592, 595, 647; resources, 75, 94, 99-100, 102-104, 121, 134, 145-46, 293, 338, 341
- Coast lines, 90
- Cocoa, 109, 113, 264
- Coercion, economic and political, 644
- Coffee: production, 75, 108-109, 117, 160, 267, 612, 626; Latin American, 92, 114, 234-35, 399, 442, 624; export-import trade, 111-13, 234, 264, 266-67, 310, 442, 510
- Coinage, free, 452-53, 455, 462
- Coinage ratio, 453-55, 467, 530
- Coins: subsidiary, 459, 462; gold, 459-60, 467
- Cold regions, 81, 193
- Collapses: various, 247, 420, 593; business (*see* Depressions); 1929, 326, 502-506, 510; 1873, 413; 1920, 424, 486, 489, 551; Austria-German (*see* Creditanstalt; *Anschluss*)
- Collective regulation, 353
- Collectivism, growth of, 329, 338, 380

- Collectivists, 539
 Colombia, 234-35, 483, 513, 657, 661
 Colonies: migration to, 33-34, 138; for economic optimum, 202; trade preferences, 364, 374-75; investment in, 376, 389-90
 Colorado, 143
 Combinations, business, 431, 440
 Combines, 326, 432, 626
 Comforts, 163, 183, 322
 Commerce (*see* Trade)
 Commercial agreements (*see* Agreements, commercial)
 Commissions, and insurance, British, 214, 218
 Commissions, international, 557-58, 560
 Committee for the Study of the Problem of Raw Materials, 180, 367
 Commodities: various, 3, 75, 109, 118-19, 158-59, 201, 211, 236-37, 288, 294-95, 301, 312, 366, 411, 476, 479, 573, 625-26; export-import trade, 54, 171, 177, 181, 183, 221, 238-39, 255-57, 270, 288-89, 292-93, 298, 312, 325, 346, 352, 411-12, 437, 465-66, 494, 547, 618; demand for, 80, 160, 165, 167, 183, 264, 287, 420, 519; payment for, 217, 300, 323, 398, 465; U. S., 221, 224, 289, 404, 414; prices, 299, 352, 461, 468-69, 482, 519-20, 549-53; restrictions, 314-15, 319-20, 326-27, 328, 354, 364-65, 422, 443; agricultural (*see* Agricultural products); currency, 455-57, 472, 475-77, 505, 530 (*see also* Goods)
 Commodities and services (*see* Goods and services)
 Communications, 76, 92, 97, 333, 555
 Communism, 80
 Community, wealth and welfare, 199-201
 Compensation agreements (*see* Agreements, compensation)
 Competition: business, 181, 271-72; foreign goods, 183, 320-21, 330, 334-35, 361-62, 364, 426, 552, 600; production, 196, 286-90, 634; various, 265, 379, 440, 476, 539-40, 555, 624, 628, 634; trade, 297, 310, 325-26, 336, 341-42, 366, 563; monopolistic, 303-304, 340, 430, 433; currency, 322, 479, 498, 510-11, 582; free, 340, 430-31, 478; co-operation among, 271-72, 431-32, 440-41
 Competitors: effects on, 334, 341-42, 361; postwar, 358, 545-46
 Conditions, political and economic: changing, 87-88, 196-98, 285, 322, 341, 345-47, 349, 353, 370, 391, 427, 480, 537-38, 555, 558, 620, 622, 624; influences on, 223, 297, 366, 410-12, 477, 482, 500-502, 579, 594, 605; disturbed, 322, 354, 393-94, 401, 564, 581
 Conferences, international trade, 358-59, 442, 616, 619, 626-27 (*see also* listed by name)
 Connecticut, 84
 Conquest, for land supply, 90-91
 Consortium, loan flotation, 397
 Construction, capital, 400, 592
 Consumer's goods (*see* Goods, consumption)
 Consumers: different, 116, 329, 434-35, 610, 620; prices, 316, 361, 431, 552; losses and gains, dumping, 342-43, 511; cartels vs., 437, 442
 Consumption: food, 160, 162, 165, 168, 612; vs. production, 186-87, 367; general, 200, 241, 260, 270, 308, 392, 541, 626; mass, 443
 Continents, interdependence of, 124-25, 224-25, 251, 309
 Contraband, 334, 354
 Controls: economic, 97, 274-75, 324, 340, 496, 549, 552, 618, 626, 637; political, 639 (*see also* listed under individual items)
 Co-operation and collaboration, international, 274, 441, 514-15, 584, 631, 633-38, 641-44
 Co-operatives, consumers in, 329
 Copper: production and trade, 53, 118-21, 145-46, 177, 234, 293-94; resources, 91, 93-94, 120-21, 134
 Cordobas, 322
 Corn, 79, 95, 107, 117, 143, 166, 197
 Corn Belt States, 96
 Corn laws, British, 314
 Corporations: finances, 97, 210-11, 220, 237, 245, 383, 386, 401, 415, 553, 662; activities, 121, 305, 329, 393, 432, 612, 638; supervision of, 210; U. S., 393, 401, 415; subsidiary, 494
 Correctives, automatic, 468-69, 472, 474, 476, 553
 Cosmetics, 97
 Costa Rica: production, 126, 234-35; finances, 483, 657, 661
 Costs: variation in, 80, 295-96, 298, 312, 331, 336, 631; general details, 97, 115, 120-21, 159, 204, 275, 294, 298, 305-309, 312, 328, 335-37, 341, 348, 353, 399, 441, 468, 508, 514, 522-24, 545, 554; fluctuations, 104, 336-37, 341; agricultural production, 116, 251, 285, 612-13, 624, 632; direct, variable, 122, 265, 272, 275, 296, 306-308, 641; marginal, 122, 298, 305; average and bulk-line, 122, 305, 336; total, 122, 335, 368, 400, 441, 638, 641; indirect, overhead, 122-23, 265, 271-72, 275-76, 295, 305-306, 308, 337-38, 341, 349, 441, 638, 641; production, 195, 197, 204, 265-67, 270-72, 285, 294-96, 299, 305, 312, 317, 321, 331, 334-36, 341-42, 361, 393; export-import, 254, 259, 284;

- transportation, 258-59, 295, 325-26, 368; and volume, 265, 295, 298, 309, 337; allocation of, 272, 276, 335-36, 338, 341-42, 350; and by-products, 275-76, 308; comparative, 292-93, 296-97, 309, 312, 317, 338-39, 349, 398, 621-22, 639, 641; advantage, 294-95, 310-12, 317, 345, 398, 622, 624-25, 634; absolute, 294-96, 312, 317, 622; labor, 297-99, 301, 443, 523; curves, 298; and prices, 299, 305, 309, 332, 477, 552; protective tariffs, 311, 317, 321, 339, 361
- Cotton, raw: export-import trade, 55, 125, 128, 197, 224-25, 234, 244, 264-65, 269, 290, 294, 411, 510; production, 75, 95, 122, 143, 166, 177, 195, 225, 294, 368, 444, 541, 593, 612, 625, 643; U. S., 115, 128, 144, 197, 224, 244, 264-65, 290, 294, 310, 411, 643
- Cotton growers, 122, 125, 624, 643
- Coudenhove-Kalergi, Richard N., 371, 378
- Countries: tropical, 52-53, 332, 411; interdependence, 98, 109, 112-13, 125-34, 176-77, 224, 232-33, 251, 256-57, 260, 264, 268-69, 274, 277, 309, 345-46, 353-54, 370-71, 380, 590, 631, 636; economic relations, 98, 138, 202, 290, 340, 346, 349, 371, 373-74, 380, 514, 553, 582, 629, 631, 640; power resources, 99, 104, 580; agriculture and raw materials, 103, 109, 111-13, 125-34, 164, 231, 285-86, 366-68, 607, 612, 631-32, 669, 671; investments, 112, 383-85, 390-92, 529, 597; production, 113, 116, 143-44, 196, 231, 268, 277, 286, 294-96, 299, 345-46, 353, 532, 582, 607, 642-43, 671; population, 138-46, 258, 266, 580, 663-68, 671; incomes, 149-53, 155-58, 164, 194, 266, 268, 299, 308, 671; export-import trade, 170, 180, 232-33, 238-43, 256-57, 260-61, 263, 266, 268, 285, 319, 326, 346, 353-54, 363-64, 597, 669; prices, 170, 321, 500-501, 550-53, 586; varying economic development of, 209, 240-43, 344, 352-53, 394, 431, 441, 629; international and interregional accounts, 212, 365-66, 396; balance of payments, 223, 240-47, 346; foreign exchange and money, 245-46, 460, 470, 482-84, 487, 494-95, 498, 506-11, 514; size, 260-61, 263, 266, 270, 278, 287, 298, 547-49, 580; comparative advantage, 296; regional agreements, 370-80; monetary standards, 452, 455-57, 460, 462-64, 467, 470-72, 482-84, 498, 506, 508, 514-15, 518, 526-27, 586; occupied, 515, 568-69; defeated, 572-75; declining, 623-25
- Credit balances, 214, 216-18, 404
- Credit items, 215, 465-66, 470, 533
- Creditanstalt, Vienna, 1931 failure, 244, 419, 481, 488, 495, 502-503
- Creditors: various, 210, 409, 412-13, 419, 452, 487, 593; countries as, 215, 251, 383, 390, 529, 569; U. S., 228, 247, 391, 407, 410, 414-15, 567; mature, 240, 242-43, 390, 409, 529; immature, 240-42, 390-91; 414-15; United Kingdom, 407, 409, 553-54; French, 407, 419; shift of, 409, 418, 420; repayment of, 409-12, 418-19, 422, 426-27, 465, 594-95, 619; external short-term, 412; capital of, 413; claims resale, 419; gold acceptance, 452; form of bank assets, 487; postwar, 577, 579; international debt, 593
- Credits: United Kingdom, 214, 216-18, 243, 284, 477, 489, 576; U. S., 221-23, 225-27, 240, 245, 288, 424-25, 465-66, 489, 499-500, 554, 565-66, 570, 593-94; France, 239-40, 502, 576; foreign, 409, 590, 594; restriction of, 458, 513; general, 499-500, 503, 569, 638; domestic, 513, 531-32; for trade, 547, 619, 621
- Crisis (*see* Collapse; Depression)
- Croats vs. Slovenes, 377
- Crops: various, 80-81, 92, 94, 96, 114, 160-61, 231, 362, 603; index values of, 80-83; climate on, 81, 83, 108, 244; rotation of, 95, 114, 612; poor, 112, 193, 586; trade, 112-14, 261, 345, 363, 547-48, 672; production, 141, 143, 546, 606-608
- Cuba: size and population, 261, 672; finance, 345, 384, 408, 425, 483, 657, 661; U. S. in, 363, 408, 425
- Cultivation: land under, 42-44, 50, 76, 89, 92, 121, 141-43; methods of, 62-63, 90, 95, 97, 285
- Culture, 46, 189-90, 192, 344, 560
- Currencies: blocked, 148, 509-10, 622; transfer problem, 212, 419, 421-22, 426, 428, 455; rates of, 301, 338, 487, 492, 585, 617; general, 310-11, 326, 338, 428, 466, 472, 485-88, 498, 512, 514-16, 521, 558, 561, 569, 579, 586-87, 589-90, 592, 658-60; domestic, 310-11, 464, 498, 512, 584, 586-87; areas, 310-11, 506-10; overvalued and undervalued, 315, 478-79, 492-97, 498, 582, 584-85; depreciation, 326, 358, 390, 472-76, 479, 508, 510-11, 513-14, 582, 589; appreciation, 326, 472, 475-77, 582, 589; stabilization of, 377, 472, 474-75, 498, 558, 561; foreign, 406, 512, 528, 530; devaluation, 462-63, 484, 505, 518, 523-24; "floating," 463; paper, 473; international, 485-88, 503; managed, 521, 585; key, 585; pegged, 586; occupation, 593 (*see also* Foreign exchange)

- Current account (*see* Accounts, current)
- Customers, 329, 392
- Customs, differences in, 87, 300
- Customs duties, 316, 356, 358, 363 (*see also* Import duties; Tariffs)
- Customs unions, 371-72
- Cutlery, 403
- Cycles: industrial, 637; business (*see* Business, cycles)
- Cyprus, 671
- Czechoslovakia: population, 7, 16, 204, 671; migration, 33, 204; export-import trade, 112, 319, 669; agriculture, 204, 632, 671; currency and monetary standards, 483, 513, 515, 657, 661; German exit, 574
- Dacca, Bengal, 66, 140
- Dahlberg, Gunnar, 189
- Dairy products, 113-14, 162, 177, 183, 607, 614
- Danubian Union, 372
- Danzig, 483
- Dawes loan of 1924, 398, 407, 494, 562
- Dawson River, 36
- Death: food lack, 163, 165; war, 542, 605 (*see also* Mortality)
- Death rates: details, 3, 6-9, 10-15, 18, 20-21, 40-41, 137, 495, 663; decline of, 10-13, 53, 59, 184-85, 187, 204, 633
- Debentures, 355, 567, 662
- Debit items, 215, 466, 533
- Debits: United Kingdom, 214, 216-18, 243; U. S., 221-23, 225-26, 240, 245, 466; France, 239-40
- Debtor-creditor relationship, 290, 358, 413, 577-78, 617
- Debtors: countries as, 112, 251, 383, 569, 630; immature, 240-41, 390, 413-14; mature, 240-42, 390-91, 408, 414-15; foreign, 243, 245, 247, 410, 593; bankruptcy, 244, 247, 410, 420-21; U. S., 391, 408, 413-15, 417, 568; payments, 394, 409-10, 418-19, 422, 465; various, 423, 428, 465, 505, 564, 578
- Debts: servicing of, 112, 323, 355, 393, 397, 400, 403, 423, 426, 494, 553, 577, 594, 638; payment of, 170, 408-12, 452, 495, 577-79; British, 218, 409, 476, 568; short-term, 218, 419, 568; U. S., 223, 414, 417, 423-26, 553, 568, 571; U. S. war, 228, 403-404, 407-409, 414, 416-17, 422-23, 476, 541-42, 563-64, 573, 647-48; political, 228, 593; government, 237, 241; individual, 237, 243, 297, 477; Austrian, 323; French, 389-90, 404-405, 409; long-term, 390, 564; war, payment of, 394, 404, 407-408, 412, 491, 562, 567, 577-79, 593; German, 394, 495 (*see also* Debts, war); international, 397, 481, 561-71, 577, 593; perpetual, 409; public, 409, 417, 423, 495, 553-55; outstanding, 449; external, internal, 553-54; lend-lease, 563-67; general, 564, 577; occupation and clearing, 568-69; blocked sterling, 571-72
- Decline of Competition, The*, A. R. Burns, 430
- Defaults, 110, 247-48, 410, 422, 426-27, 577, 579, 619
- Defense, national, 203
- Deficit economy, 175, 184, 199
- Deficits, British, 214
- Deflation, 148, 320, 476, 486, 492, 508, 523
- Delaisi, Francis, 371-72
- Delegation of the Financial Committee, League of Nations, 521-24
- Demand: various forms, 75-77, 120-21, 158, 183-84, 298, 312, 345, 362, 498, 510, 570, 621, 625; raw materials, 100, 118-22, 125, 127-29, 133-34; changes in, 104, 201, 287, 347; food, 107-10, 115-16, 118-20, 134, 165-66, 183-84, 608, 637; elastic and inelastic, 107-10, 122, 134, 159, 167-68, 170, 182, 298, 316-17, 321, 519, 600-601, 611, 613-14, 624, 637; derived, indirect, 118-20, 134, 434, 637-38; depression on, 119, 127, 179; and prices, 134, 167-68, 182, 316, 361, 519, 600-601, 611, 613-14; goods, 158-59, 183, 287, 300-301, 466, 547; agricultural, 167-71, 182, 600-601, 611, 613-14; income elasticity of, 168-69, 457; international, equation of, 298; direct, 637
- Democracy, 601, 634
- Denmark: population, 11, 139, 261, 664-66, 668, 671-72; export-import trade, 111, 113-14, 261-62, 319, 373, 547-49, 669, 672; production, 143, 532; income and area, 261-62, 671-72; finance, 262, 391, 483, 501
- Dental care, 168, 635
- Deposit liabilities, 458-59, 460, 468, 486
- Depositors, bank, 412, 419
- Deposits, bank, 450, 455, 469-70, 490, 499, 513, 531
- Depreciation: physical, plant and equipment, 271, 335, 337, 412, 542, 545; currency (*see* Currencies, depreciation)
- Depressions: 1929, 35, 109, 194, 309, 322, 355, 362-63, 375, 389, 407, 419, 424, 435, 444, 481-82, 486, 489, 491, 500, 502-507, 521, 525, 600, 620, 637, 642; various, 35-36, 94, 109, 114, 119, 123, 125, 127, 134, 179, 186, 275, 600; business, 70, 109, 119, 179, 193-94, 308, 347, 631; population, 70, 187, 194; trade, 309, 350, 355, 362-64; 1921, 424, 486, 489, 551
- Desert regions, 42-43, 194
- Desires, human, 80, 92, 106-107, 160, 163-65, 171, 183, 201, 273, 402, 538-40, 602, 611

- Destruction, wartime physical, 500, 502, 537, 542, 572, 575, 584, 590, 642
 Detroit, 127
 Deutsche Bank, 398-99
 Devaluations (*see* Currencies, devaluation)
 Diamonds, 167
 Dictators, 196
 Diet, human, 46-47, 106-107, 164-65, 231, 266
 Dikes, Dutch, 92, 546
 Diminishing productivity, law of, 196
 Diminishing returns, law of, 61, 65, 121-22, 173-74, 177, 191, 193, 196, 285, 295
 Diminishing utility, law of, 160-63, 167-68, 312
 Diplomacy, foreign, 395
 Discount rates, U. S. bank control, 276
 Discrimination: trade, 180, 321-22, 324, 362-63, 366-68, 567, 618, 639-40; Japanese Far East, 378; immigrants, 639
 Disease, 52-53, 164, 195, 324
 Disequilibrium: balance of international payments, 514, 584, 586; "fundamental," 586
 Disinvestment: World War II, 284; British, 389-90, 547, 554, 568; German, 390; U. S., 425
 Dislocations, wartime economic, 290, 358, 375, 491, 500, 502, 516, 546-55, 575-76, 590, 617, 628
 Dismissal pay, 308
 Displaced persons, 605-606
 Disposessions, 170
 Distance, an economic factor, 180, 258-59, 300, 392, 450
 Distribution, 80, 517, 590 (*see also* under items listed separately)
 Distributors, 432, 435
 Disutilities, 305, 336
 Dividends, 219, 221, 227, 234, 237, 241, 355, 494, 638
 Dollar area, 506-508
 Dollar diplomacy, 619
 Dollars, U. S.: value, 232, 590; world supply and use of, 245-46, 267; demand for, 245-47, 322, 527, 529-30, 571, 586, 590, 592, 617; general use, 253, 255, 301, 308-309, 338, 386, 401-402, 456-57, 464, 477, 494, 510, 515, 528, 578; depreciation of, 326, 474, 479, 506, 508, 510; gold content, 338, 451, 461, 463, 467, 505, 512, 522; British reserves, 389, 554; devaluation of, 401, 504-506, 513, 523; shortage of, 423, 428, 500, 547; silver, 462; price vs. pound, 468-69, 476-77, 505-506, 585, 591; International Fund, 584, 660
 Domestic affairs: government and *laissez-faire*, 329, 340, 349, 589; gold in, 585
 Domestic service, 147
 Dominican Republic, 37, 483, 657, 661
 Downfall of the Gold Standard, *The*, Gustav Cassel, 518
 Drafts: foreign on U. S., 226, 245, 423; on accounts, 322, 398-99, 403; bank, 322, 408, 462, 464-65; price of purchase, 401, 467-69, 481, 485; French, 404; London, 464, 468-69; New York bank, 465, 468-69
 Drainage, 92, 546
Drang nach Osten, 371
 Drought, 193, 244
 Drugs, 97, 163, 328
 Dumping: antidumping laws, 324, 341, 511, 625; reverse, 341; definition, 341-43; long and short run, 342-43, 625, 641; exchange, 343, 374, 511
 Dust bowl, 95, 97, 144
 Dutch East Indies (*see* Netherlands Indies)
 Duties: conventional, 356; import (*see* Import duties); customs (*see* Customs duties)
 Dyestuffs, 330-31
 Dysentery, African, 52
 Earnings, 237, 401, 545
 East, agriculture of, 56
 Economic Intelligence Service, League of Nations, 219, 228, 231
 Economic and International Commission, Genoa, Italy, 358, 483, 619
Economic Journal, London, 217
 Economic organizations and institutions, 171, 176, 196, 350, 376, 531-32, 629, 638
 Economic planning, national, 346, 353, 359-60, 634-35
 Economic relations, 204, 212, 232, 290, 362, 374, 529, 567
 Economics: phases of, 3, 78-79, 87, 158, 173-75, 297, 372, 394; population and, 26, 33-36, 46, 49, 60, 65, 67, 70, 158, 192; optimum, 190-94, 199, 201; world repercussions on activity, 202, 252, 269, 590; European federation effect, 378; current objectives, 629-33
 Economy: development prospects, 35, 53, 229, 620; problems, pressures, and frictions, 80, 97-98, 109, 137, 158, 175-81, 185, 192, 275, 540; surplus, 175, 184, 199; *laissez-faire* (*see* *Laissez-faire* economy); various, 192, 262-63, 270, 361; free, 202, 330, 340, 349, 539-40, 618; domestic, 289, 326-27, 359, 361, 478, 594
 Economy, national: general factors, 264-65, 308, 328, 513, 555, 636; government control, 272-76, 307-309, 326-27, 340, 346, 352-53, 359-61, 494, 549, 618, 634-35; unification of, 274, 338, 349, 639; outside

- conditions and world economy on, 313-14, 325, 359-360, 380, 480, 491, 498, 532; wartime, 334, 587, 621
- Economy, world: vs. national, 313-14, 325, 380, 491, 498; competitive, 352, 378, 476, 635
- Ecuador, 483, 657, 661
- Education: importance and effects, 87, 188, 192, 195, 199, 306; nutrition, 165, 171, 560, 602, 613-14
- Edwards, Corwin D., 437
- Efficiency, human, mental and physical, 84, 86, 183, 542, 602, 609, 613
- Eggs, 106, 162, 165, 461, 607
- Egypt: population, 7-8, 11, 13, 64, 663, 671; migration, 26; incomes, 156, 671; agriculture, 165, 671; and Britain, 288, 311; trade, 356, 672; finance, 483-84, 504, 547, 555, 657, 661
- Eire, 156-57, 532, 671 (*see also* Ireland; Northern Ireland)
- El Salvador, 260, 483, 657, 661
- Electric current, 93, 102
- Electrical goods, 432, 437
- Electrotechnical progress, 285
- Embargo, gold and silver exports, 504
- Embargo Act of 1807, 354
- Emigration: a population relief, 11, 66, 138, 187, 202-204, 601; details of, 24-25, 27-28, 30-38, 49, 53, 59; government aid and controls, 31-32, 34-35, 39, 314, 618 (*see also* Migration; Immigration; countries listed separately)
- Emotions, human, 106-107, 540
- Employers, 35, 308, 331, 334-35
- Employment, 35, 182, 198, 274, 308, 332, 457, 482, 565, 567, 626, 637
- Employment, full: factors of production, 198, 295, 346-48, 350, 353; importance of, 311, 347, 582, 620, 624, 629-30; pressure for, 360, 552-53, 630; resources, 639-40, 642
- Enamels, 166
- Encyclopedia of the Social Sciences*, 148-49
- End of Laissez-faire*, The, J. M. Keynes, 430
- Engel, Ernst, 168-69
- Engineering, 198, 400
- England: population, 7-9, 12-15, 17-19, 21, 24, 31, 56, 64, 110, 139-40, 146, 152, 194, 288-91, 663-65, 667-69, 671; agriculture, 56, 110, 671; occupations, 145, 147, 671; income, 152, 157, 194, 671; position of, 284
- Entente Internationale de l'Acier, 436
- Enterprise: private, 97, 304, 307-308, 313, 329, 338, 539, 589; various, 108, 169, 190; finances and trade on, 211, 224, 241, 422, 427, 433, 545, 638; freedom of, 273
- Environment, group differences, 40, 187-90, 538-40
- Epicureanism, 160
- Equality, state, 653
- Equilibrium: balance of payments, 243-48, 361, 374, 455, 487, 514, 533, 584, 586; international, 244-45, 374, 500, 514, 529, 546; general theory, 299-302, 639; price, 316, 321
- Equipment (*see* Capital equipment)
- Equity interests and investments, 413, 415, 420, 424
- Essay on the Principle of Population as It Affects the Future Improvement of Society*, An, Thomas R. Malthus, 60
- Estonia, 16, 231, 483, 532
- Ethiopia, 37, 657, 661
- Ethnic groups, 190
- Europe: population, 4-6, 16, 18, 20-21, 24-25, 32, 44, 57, 59, 70, 83, 137-38, 152, 182, 184, 186, 204, 231, 652-53; migrations, 27-28, 31-33, 36-37, 40, 543, 605; colonial control, 33, 90-91; standards of living, 44, 49, 175, 230, 233, 258; western, 44, 63, 70, 83, 85, 156, 158, 175, 314-15, 371-72, 401, 427-28, 571, 593, 596, 607-608, 636; industry, 44, 83, 158, 233, 258, 278-79, 315, 371-72, 427-28, 607-608; incomes, 63, 85, 156, 620, 636; agriculture, 80-81, 83, 96, 112, 124-25, 152, 230-31, 233, 371-72, 427, 607-608, 670; general details, 84-85, 103-104, 189, 258, 407, 411-12, 481, 499, 546, 571, 618, 624; federation of, 110, 378-79; southeastern, 112, 204, 394, 479, 507, 620; central, 152, 156, 371-72, 401, 427-28, 503, 507, 593; eastern a compliment to western, 184, 186, 371-72; export-import trade, 224-25, 231-34, 257-59, 263, 270, 278-81, 283, 312-15; raw materials, 231, 233-34, 568-69; finance, 234, 387, 421, 425; capital needs, 401, 427-28, 593; gold standard and exchange, 455, 460, 484, 487-89; creditor-debtor position, 487, 568 (*see also* countries listed separately)
- Europe's Trade*, 231
- Evolution, biological and geological, 285
- Exchange: volume of, 80, 251; rates, 148, 472-73, 507, 514-15, 591; aids, 259, 368, 466; and specialization, 293-94; pegged, 338, 466, 477, 515; freedom of, 338-39, 509-10 (*see also* Currencies; Foreign Exchange)
- Exchange control boards, 322
- Exchange controls, 148, 282, 308-309, 322-23, 350, 374, 493-97, 507, 509, 511, 515, 517, 551-52, 585, 622, 636
- Exchange Equalization Account, British, 512-13
- Exchange Stabilization Fund, U. S., 513

- Exchange stabilization funds, 511-12, 527, 531, 533, 581, 587
- Excises, 363
- Expenditures: various, 144, 210, 294, 427; and income, 168-69; individual and corporation, 171, 211, 216, 237, 271, 275; national and government, 213, 217, 219, 237-38, 315, 456; United Kingdom, 214, 216-17; definition, 215; U. S., 227
- Exploration, for land supply, 90-92, 104
- Export bounties, 314
- Exporters: goods, 225, 238, 323, 325, 366, 509-10, 612; and foreign exchange, 470, 476-77, 493, 510
- Export-Import Bank, U. S., 566, 591, 593
- Exports: various countries, 50-52, 221-27, 229-30, 234-35, 240-43, 245-47, 364-65, 391, 399, 406, 410, 413, 415, 472-73, 475-77, 507, 570-71, 596-98, 617, 623, 643, 654-56; food, 109-12, 357, 631, 669, 672; and prices, 115, 170, 301; government aid and controls, 116, 122, 180, 276, 311, 325-27, 352, 361; raw materials, 145, 181, 357; excess, 216, 410, 426, 487, 563, 570; visible and invisible, 233-34, 269, 346, 360, 465, 493, 547; balance with imports, 236, 238, 247, 269-71, 278, 281, 298, 323-24, 413, 415, 475-77, 619-20; merchandise, 238-39, 280-83, 288; general, 251, 343, 440, 547-49, 619; value, 253-55; composition, 255-57; distribution, 257-59; volume, 260-63, 317, 500, 672; and income, 261-62, 264, 266, 269, 278-79, 360; for the sake of imports, 269-72; increase of, 278, 290, 362, 411; bilateral agreements on, 281, 355; multi-lateral trade, 281-84; postwar, 286-87, 592, 617; costs, 295, 310, 317; comparative advantages, 297-98; cartels on, 310, 639-40; protectionism, 314, 396; currency appreciation and depreciation on, 326, 463, 475-78, 492, 506, 510-11, 513, 582; legislation, 326-27; gold, 468-70, 485-86, 526-27, 529, 533, 585 (*see also* Trade)
- Factories, 200, 260, 330, 401, 541-42, 570, 576
- Failures, financial, 244, 247, 410, 412, 419-21
- Fallow land, 96, 141, 143
- Families, expenses and incomes, 156-57, 161-62, 168, 200, 630
- Famines, India and China, 65
- Far East, 229, 378
- Farm acreage, 169
- Farm products (*see* Agricultural products)
- Farmers, incomes and production, 62, 108, 110, 144, 164, 170, 271-72, 306, 620
- Farming, mechanized, 54-56, 158
- Farms, 541-42, 570
- Faroe Islands, 311
- Fascism, 38, 80
- Fashion, 90, 200
- Fats, 106, 164, 177, 231, 609
- Favors, countries reciprocal, 354, 357-58
- Fecundity, human, 6, 14, 63-64
- Federal Communications Commission, U. S., 97
- Federal Oil Conservation Board, U. S., 101
- Federation of British Industries, 359, 622
- Feed, animal, 117, 608
- Females, population, 11-12, 14-15, 649-53, 664
- Ferroalloys and ferromanganese, 145
- Fertility: human, 14, 20-21, 63-64; soil (*see* Soil, fertility)
- Fertilizer, crop, 54-56, 79, 95, 120, 134, 203, 272, 306-307, 612
- Final Report of the Mixed Committee of the League of Nations on the Relation of Nutrition to Health, Agriculture and Economic Policy, 602
- Finance (*see* Economy; and items listed separately)
- Financial journal, 466
- Financial mechanisms, details of, 447-533
- Financial statements, value of, 209-12, 228-29
- Finland: trade and population, 16, 261, 373, 672; production, 231, 532; finances, 483, 504, 572-73, 648
- Firms, foreign exchange allocation, 494 (*see also* Corporations)
- Fish, 106, 145
- Fisher, Irving, 450
- Fishing: Japan, 42, 47, 141-42, 145; Sweden, 142; England, 145, 153; Yugoslavia, 147
- Floods, 91-92, 97, 244
- Flora and fauna, 88, 324
- Florida, 92
- Flour, Australian, 51
- Fodder, 177
- Food: a population need, 12, 46-47, 60-61, 106-17, 171, 174, 201, 234, 285; costs, 54, 251, 285, 609, 636; demand, 56, 107-16, 118-20, 130, 171, 183-84, 186; and income, 56, 161-62, 168-69, 183; supply, 61-62, 89, 98, 107-16, 134, 177-78, 186, 251, 285, 367; distribution, 63, 600, 610-11, 613-14, climate on, 78-79, 88, 117; general details, 97, 188, 340, 541, 607, 637, 639; economic factor, 106-16; prices, 108-10, 112, 115, 160, 167, 600; world primary production, 109, 123; trade, 110-13, 177-78, 197, 202, 230, 241, 251, 255-57, 285, 399, 473, 476, 494, 631, 647, 669; a raw material, 117-20; consumption, 163, 165, 260, 600, 613; free

- access to, 176, 366-68; individual purchases, 237, 275, 308; buying and selling, 237, 613; for relief, 558, 603, 608; protective, 603, 609, 613-14; future of, 609-12
- Food and Agriculture Organization of the United Nations, 538, 561, 609-12, 616, 627
- Food production: and population, 32, 158, 606-607; general details, 44, 54, 108-10, 116, 118-19, 124-25, 134, 143, 160-61, 163-64, 177-78, 198, 231, 600-603, 607-608, 610-14, 637, 670; increase of, 55-56, 62, 171; F A O, 610, 612-13
- Food products (see Agricultural products)
- Food Research Institute, Stanford University, Cal., 43
- Food riots, 106
- Foot and mouth disease, 324
- Force, in trade, 354
- Fordney-McCumber Act (1922), 318, 415
- Foreclosures, 110, 170
- Foreign Economic Administration, 563, 605
- Foreign Exchange: in general, 302, 308-309, 311, 322-23, 368, 405-406, 415, 420, 428, 495, 504, 506, 513, 592; rates, 309, 349, 493, 614, manipulation, 326-27; control of, 338, 366, 491, 553, 565, 602; activities of, 338, 463, 387-88, 491, 502-503, 509-510, 515, 617-18; shortage of, 362, 577, 639; strains on, 385, 591; bank reserves in, 460, 483-85, 507; details of, 465-79; supply and demand 467, 592; relations, 470, 642; on trade, 474-79; a political weapon, 478-79; allocation of, 494; from exports, 548, 578-79; International Fund and Bank, 580-81, 589, 658-59 (see also Currencies; Exchange; Exchange controls)
- Foreign exchange markets: activities, 399, 400, 462, 478, 504, 512, 639; silver-gold ratio, 453-55, 458, 483, 530; currency value, 462, 492, 500, 639; open market operations, 482, 486, 489-91, 493, 531
- Foreign trade (see Trade, international)
- Foreigners: and U. S. finance, 221-22, 227, 289; domestic enterprise control, 274, 316, 422
- Forest belts, 96
- Forest industries, 51
- Forests, 43, 75, 94, 96-97, 134, 142, 144-46, 240
- Forsyth, W. D., 31
- Fort Knox, Ky., 527
- France: activity of, 301, 401-404, 466, 481, 488, 494, 515, 528; price, 390, 471, 492-93, 508, 512, 515, 585, 590; gold content, 452, 454, 467; depreciation and devaluation, 472, 477, 490, 523
- France: population, 4, 7-9, 11-13, 17-18, 21, 32, 56, 64, 67-68, 188-89, 663-66, 668, 671-72; migration, 33, 605; colonies, 50, 127, 256-57, 376; industry, 99, 101, 104, 256, 336, 432, 576, 671; food and agriculture, 107, 143, 177, 191, 611, 632, 671; export-import trade, 111-12, 128, 238-39, 262, 283, 319, 354, 435, 541, 566, 626, 644, 669, 672; income, 149, 575, 671; agreements, 355, 514-15, 626; investments, 384, 389-90, 403, 409, 421, 529, 568; creditor-debtor position, 390-91, 404-405, 407, 413, 500-502, 575-76, 617; finances, 390, 401, 404-406, 409, 477, 502-503, 544-45, 562, 566, 569, 572-73, 575, 582, 584, 587, 648, 657, 661; foreign exchange and monetary standards, 404, 451-52, 454, 458, 472, 481, 483-84, 490-91, 498-99, 502-503, 507-508, 513-15, 528, 533, 618; prices, 491, 550-51
- Franco-Prussian War (1871), 394, 404
- Freight cars, 118-19, 418, 545
- Freight rates, 221-22, 254, 259, 317, 325, 355, 468, 625
- French Africa, 34
- French Indo-China, 126
- French Morocco, 256-57
- Friedrich Krupp Aktiengesellschaft, 437
- Frontiers, common, 259, 328, 370-71, 373-74, 426
- Frosts, 84
- Fruit trees, 108
- Fruits, 51, 80, 162, 183, 272, 306, 411, 607-608
- Fuels, 48, 86, 117, 119-20, 123, 125, 260, 275, 308, 394, 637, 670
- Full-Dinner-Pail argument, 331-34, 339
- Funds: German, 218, 365, 412; U. S., 221-22, 225-27, 245, 402, 413, 417, 424; short-term, 221-22, 225-27, 245, 424; private, 237, 308; public, 237, 308, 310; various, 241, 322, 392-93, 403, 413, 549, 570-71, 592; blocked, 338, 366, 577; foreign 348, 413, 417, 424; British wartime, 389; liquid, 393, 401, 419; shifting of, 401, 425, 482, 485-86, 488, 500, 503, 528; French, 405, 419; exchange stabilization, 510-11; capital (see Capital funds)
- Funds, borrowed: details, 242, 270-71, 398, 400, 403, 405, 418, 592, 662; productive use of, 310, 397, 399, 412, 417, 427, 530, 579
- Furs, clothes, 48
- Gains: economic, 93, 159, 252, 256, 292-93, 294-96, 303, 314, 337, 339, 345, 348-49, 371, 459, 522, 620; capital, 210; speculative, 425, 481
- Gandhi, Mahatma, 66
- Gasoline, 102, 117

- General Electric Company, 437
 Genetics, race inheritance, 188
 Geography, economic relations in, 3-25, 190, 211, 228-29, 539
 George, Henry, 292, 340
 German Clearing Institute, 569
 German Empire, 371
 Germany: population, 12-13, 17-18, 28-31, 33-34, 47-49, 56, 67-70, 138-41, 187-89, 194, 198, 201-202, 574, 651, 663-66, 668, 671-72; area, 29, 230, 672; migrations, 31, 36-37, 202, 544, 574, 605; food and agriculture, 56, 143, 177, 202, 230, 344, 367, 399, 473, 494, 574, 611, 632, 671; production and industry, 99-102, 104, 129, 181, 191, 198, 202, 297, 330-31, 344, 378, 399, 431-32, 436, 438, 473, 574, 576, 671; natural resources, 99-102, 201, 473, 494, 510; European domination and union, 110, 371, 376-79; export-import trade, 111-12, 181, 202, 230, 260, 262, 281, 283, 297-98, 316, 319, 333, 354-55, 365, 368, 375, 378, 394, 399, 406, 410, 472-73, 494, 609, 617, 644, 671-72; income, 149, 158, 194, 198, 201, 262, 276, 573, 576, 671; economic optimum, 201-202; political controls, 202, 378, 394, 479; finances, 218, 240, 365, 372, 377-78, 384, 389-90, 401, 409, 412, 419, 456, 502-503, 617; debtor-creditor position, 228, 385, 390-91, 394, 398-99, 401, 404, 406-407, 423; reparation claims and payments, 403-10, 419, 464, 494, 562, 572-74, 576, 578, 647; foreign exchange and monetary standards, 406, 452, 456, 471-73, 483, 498-99, 507-509, 528; prices, 406, 509-10, 550-51; occupation costs, 568-69, 593; standard of living, 574
 Ghost towns, 94
 Gifts, 237-38, 396, 565, 569, 575, 610, 625
 Glass, David V., 70
 Gloves, manufacturing of, 336-37
 Glue, production of, 120, 272, 306
 Gobi Desert, 142
 Gold: sources, 51, 76, 91, 93, 121, 195; stocks and reserves, 75-77, 389, 458-60, 468-70, 476, 482-86, 488, 491, 498, 502, 521-20, 524-28, 531, 533, 585, 658; U. S., 76-77, 221-22, 225-27, 415, 424, 513; influence of, 92, 121, 219, 247, 270, 293, 459, 522; chlorine and cyanide processes, 93, 121, 195, 520; demand, 120, 503-504, 521-24; flotation process, 121, 520; devaluation, 195, 462-63, 508; movements, 213, 221, 227, 244-45, 272, 274, 298, 349, 402, 420, 466, 491, 500-502; British, 214, 389, 463, 490, 506, 512, 554; earmarking operations, U. S., 221, 226, 527; export-import trade, 221-22, 225-27, 238, 284, 294, 414-15, 424, 452, 458-60, 485, 490, 504, 641; as a money base, 253, 338, 456, 459, 487, 521, 530-33; mining, 294, 452, 520, 522-27; points, 338, 470-74, 582; blocked funds for, 366; purchase of, 401, 474, 514, 521; French, 404, 491, 502-503; German, 406, 509; and silver, 453-55, 462, 470, 518; prices, 458, 461-63, 468-69, 472, 505, 520-21; holdings, 459, 486-88, 490, 527; bars, 460; abrasion, 468; parity, 474, 509; sterilized, 476, 486; economizing, 482-84, 499, 523; circulating medium, 486-87, 518-19, 521, 531; neutralization, 488-92, 496, 525, 531; legislation, 504-505; exchange stabilization fund, 513-14; ascendancy of, 517-21; details of, 517-33; qualities of, 518-21; distribution, 521, 524-30; industrial, 526; acceptability of, 528-29; future of, 528-30; Allied captured, 573, 648; International Fund and Bank, 584-87, 658-59
 Gold bloc, 506-509, 514
 Gold bullion standard, 460, 485
 Gold exchange standard, 454-55, 460, 470, 482-86, 488, 498-99, 502, 518, 523-24, 533, 581
 Gold payments: various countries, 428, 463, 498, 502-504, 506; suspension of, 482, 508, 512, 518, 524
 Gold shipments: interest rates, 468-69, 476, 489; export-import, 468-70, 472, 476-77, 485-86, 526-29, 533, 585-86
 Gold specie standard, 459-60, 469
 Gold standard: general, 301, 451-54, 457-58, 462-63, 467, 469-72, 480, 482-85, 496, 502, 506, 521, 524, 529, 585, 641; in detail, 517-33
 Gold Standard Act (1900), 454, 517
Good Ship Earth, The, Herbert Quick, 26
 Goods: demand, 56, 119-20, 266, 283-84, 466, 637; costs and sales, 80, 112, 170-71, 238, 258-59, 305, 511; manufactured, 112-13, 119-20, 170-71, 202, 251, 255-56, 277, 319, 358, 577; consumption, 119, 123-24, 198, 241, 266, 269, 278, 300, 399, 401, 413, 567, 592-93, 630, 637; scarcity of, 159, 367; production output, 177-78, 198, 460, 630, 634; exchange of, 181, 251, 255-56, 269, 277-78, 301, 323-24, 343, 407, 413, 567; capital, 198, 399, 401, 637; general, 199-200, 213, 279, 407, 540, 566, 575; superfluous, 200, 541; smuggled, 221-22; British, 283-84, 360, 366, 375-76, 642-43; funds for, 300, 366, 399, 401; controls on, 316, 318-19, 362-63, 639; finished, 393, 466, 596, 623, 639; silver-gold standard value, 463, 470 (see also Commodities; Merchandise)

- Goods and services: general details**, 3, 200-201, 213, 217, 219, 236-37, 240, 266-67, 289, 402, 407, 466; U. S., 240, 289, 564; trade, 252, 406-407, 410, 480, 495, 541; purchase and payment, 294, 523, 594; German export excess, 406, 410, 472-73, 479
- Government: immigration restriction**, 30-31, 34-35, 39-40, 42, 47, 49, 53, 57; agricultural aid and control, 56, 108-109, 122, 158, 160, 170, 624; population policies, 65-70; economic controls, 97, 272-73, 329, 349, 431, 553, 589, 618, 638-40, 644; activities, influences, 189, 221-23, 227, 245, 340, 365, 462, 485-86, 528, 539, 552, 564, 571, 589, 612, 662; accounts of, 210-11, 215; taxes and revenue, 215, 315; indebtedness, 215, 386, 553; and investment, 241, 383, 386, 409, 443, 480; ownership and operation, 272-73, 638-40; and economic position, 272-76, 350, 352, 482, 486, 491; trade controls, 304, 310-11, 313, 321, 326, 360, 362, 365, 407; aid to investors for political control, 394-95, 443; radical and conservative, 428; cartel aid, 441, 443-44; production control, 443-444; sovereignty under federal organization, 557; government planning, 634-35 (*see also* Controls; and items listed separately)
- Grains**, 55, 96, 106, 272, 295, 306, 545, 614 (*see also* varieties listed separately)
- Grand Coulee project**, 38
- Grapes, Scotch**, 294
- Grass land and grazing**, 44, 88, 96, 144
- Great Britain: population**, 4, 36, 187-89, 671; agriculture, 63, 107, 110, 147, 153, 284, 642-43, 671; colonies, 90, 127 (*see also* listed by name); export-import trade, 128, 148, 195, 256-57, 283, 286, 288, 355, 359-60, 366, 368, 375, 391, 442, 464, 475-77, 507, 552, 565, 571, 617, 622, 642-43, 654; occupations, 147, 153, 345, 671; industry, 148, 153, 195, 256, 332, 375, 395, 400, 402, 432, 436-37, 532; income, 151, 171, 187, 193, 391, 395, 409, 554-55, 621, 628, 671; finance, 171, 218, 288, 365-66, 384, 386, 388, 390, 401, 409-10, 413, 418-19, 464, 481, 492, 503, 580-81; prices, 171, 489-90, 550-51; national policies, 179-80; foreign exchange and monetary standards, 212, 311, 326, 366, 452, 454-55, 459-60, 462-64, 471, 475-79, 483-85, 490, 492, 502-505, 508-509, 511-14, 565; self-sufficiency, 333, 349, 360; agreements, 373, 442, 514-15; creditor-debtor position, 390-91, 394, 404, 407, 409, 419, 476, 547, 562, 578-79, 595 (*see also* United Kingdom; British Commonwealth; England; Wales)
- Greater Reich**, 110 (*see also* Germany; Nazi Germany)
- Greece: population**, 7-8, 11, 204, 663, 671; production and trade, 143, 204, 372, 532, 551, 603, 663, 672; finance, 483, 504, 515, 657, 661
- Greenbacks, Civil War**, 454, 456, 472
- Greenhouses**, 332
- Greenland**, 258-59
- Group Settlement Scheme**, 36
- Groups: requirements and interrelations**, 46-47, 60, 171, 183, 187-90, 290, 538-39; low-income, 171, 183
- Grunzel, Josef**, 314, 348, 618
- Guatemala**, 483, 657, 661
- Guidance, a production factor**, 195
- Guilders**, 466, 494, 508, 523, 528, 590
- Guns**, 333, 541
- Habits, human**, 106-107, 189, 540, 579
- Hair texture**, 188, 538
- Haiti**, 657, 661
- Hankins, Frank H.**, 192
- Hat, price of**, 461
- Hay, European**, 80-81
- Hay, John**, 378
- Health**, 46-47, 88, 106-107, 164, 194, 199, 560, 613
- Heat**, 92, 99, 169, 193
- Heating**, 48, 86, 88
- Helium gas**, 354
- Heredity, and group differences**, 187-90, 538-39
- Hexner, Ervin**, 436
- Hides and skins**, 51, 120, 166
- History, and national attitudes**, 188, 539
- Hitler, Adolf**, 69
- Hogs**, 117, 120, 166, 272
- Holding companies**, 121, 432
- Holdings: foreign**, 385-86, 390, 409, 414, 420, 423-24, 528-29; gold (*see* Gold, holdings)
- Holland (see Netherlands, The)**
- Homestead Act (1862), U. S.**, 273, 307
- Honduras**, 483, 657, 661
- Hookworm disease**, 195
- Hoover moratorium**, 481, 495
- Hopper, Bruce**, 54
- Hospitals, free care**, 635
- Hot country**, 43
- Hot money**, 401-402, 417, 482, 485, 487, 500, 512
- Houses and housing**, 12, 166, 168, 461, 592
- Hull, Cordell**, 363, 622
- Hull Trade Agreement**, 619, 622
- Human beings, how they live**, 42, 137-71 (*see also* Population)
- Human energy**, 83-86

- Human relations, 187
 Humidity, 86
 Hungary: population, 16, 152, 204, 671; migration, 31, 204, 574, 605; trade, 113, 319, 672; income, 149, 204, 671; finance, 483, 498, 573, 648; prices, 551
 Huntington, Ellsworth, 47, 80-81, 83-84, 86-87, 93
 Hydroelectric energy, 103-104
 Iceland, 13, 311, 657, 661, 671
 Ideology, immigrant, 639
 I. G. Farbenindustrie, 552
 Ill will, 324, 341, 564
 Illinois, 96, 143
 Immigrants, needs of, 27, 46-47, 54
 Immigration: on population, 11, 28, 35; barriers, controls, and restrictions, 30-31, 39-40, 42, 47, 49, 53, 57, 155, 314, 354, 618, 639 (see also Migration; Emigration; and countries listed separately)
 Immigration Act of 1921, 39
 Immunity, trade agreement, 357-58
 Imperial Economic Conference (1932), Ottawa, Canada, 374-77, 379
 Imperial preference, 313, 374-77, 379
 Imperialism, economic, 26, 591, 619
 Import duties: agriculture, 197, 285; payment of, 285, 350, 362, 511, 552; domestic economy protection, 313-14, 321-24, 361; and trade, 315-20, 332, 363, 373, 375; and production costs, 317, 334-35, 337; rates of, 324, 363, 415; reduction or abolition, 340-41, 363-65; legislation, 356 (see also Tariffs; Customs duties)
 Import Duties Act (1932), 375
 Importers, 315, 321-23, 476, 493-94, 509-10, 612
 Imports: food, 109-12, 631; countries' dependency on, 111, 240-43, 623, 672; for production, 111, 264-66, 268-69, 278-79; government controls, 115, 311, 360-61, 415, 511, 586, 595; prices, 170, 301, 463, 493; various, 181, 286-87, 310, 324, 333, 355, 361, 399, 414, 487, 593, 633; trade competition of, 183, 281-84, 330, 364; excess, unfavorable, 216, 428; German, 229-31, 406, 410, 509-10; balance with exports, 236, 238, 247, 269-72, 278, 289, 298, 323-24, 348, 396, 411, 413, 415, 571, 619-20; merchandise, 238-39, 280-83, 288-89; value of, 251, 253-55, 318-20, 361; composition, 255-57; distribution, 257-59; volume of, 260-63, 316-17, 500; and incomes, 261, 264, 266-69, 278-79, 360; invisible and visible, 269, 333, 346, 415; increase of, 278, 290, 411, 426; costs, 295, 298, 316-17, 352, 356; tariffs and quotas on, 314-15, 317-22, 352, 362, 364, 375, 396, 410; order allocation, 321-22; payment for, 322-23; classification of, 324; currency appreciation and depreciation on, 326, 463, 475-79, 492, 506, 510-11, 582; business on, 347, 364; curtailing, 362, 411; gold, 468-70, 485-86, 526-29, 533, 585; war and post war, 547-49, 575, 617 (see also Trade)
 Improvements, permanent, 541
 Incentives, 437
 Income account, 211-14, 216-17, 219-20, 227
 Income elasticity: general, 107, 118, 125, 163; of demand, 168-69, 602-603
 Income tax return, 210
 Incomes: use of, 42, 56, 65, 83, 107-108, 115-16, 118, 182-83, 194-95, 199, 251, 286, 352-53, 600-603, 610-11, 630; rise in, 56, 63, 85, 87, 107-108, 171, 184-87, 193, 205, 224, 251, 287, 290, 540, 590, 602, 611, 613-14, 635; and food, 56, 107-108, 118, 125, 161-62, 166, 608; agriculture, 62, 147, 152-53, 158, 203, 600-603, 610-11, 613, 636; per capita, 85, 115, 134, 153, 157, 184-85, 192, 263-64, 277, 286, 290, 392, 395, 540, 552, 595, 602, 610, 630, 636; distribution, 87, 155-58, 164, 171, 200, 276, 307, 327, 349, 519, 540, 635; national, 93, 147-53, 171, 187, 191, 193, 213, 224, 242, 261, 263-64, 266-69, 273, 276, 278-79, 287, 290, 307, 318, 327, 332, 346-47, 349-50, 352-53, 391, 430, 457, 498, 519, 540, 542, 575, 590, 594-95, 630, 635, 671; population and trade, 138, 153, 224, 261, 263-64, 266-69, 278-79, 290, 318, 376, 619-21, 623; occupation shift for, 152-53, 182, 204; various, 183, 201-202, 210, 299, 308, 327, 391, 411, 498, 541; production and, 191, 430, 457, 630, 635-37; flow of, 211, 237; current, 237, 392, 573-74, 594-95; and trade barriers, 346-47, 352-53, 376; currency over- and undervaluation, 475, 478; real, money, 475, 553, 594, 614, 621; war and postwar, 542, 552, 573-75; consumers, 620 (see also countries listed separately)
 Indebtedness (see Debts)
 Indemnity: war, 394, 397, 427 (see also Debts, war; Reparations); French 1871 payment, 404-405
 Independence, economic, 352-53
 India: population, 6-7, 9, 11-13, 17-19, 38, 51, 56, 65, 83, 138-40, 165, 194, 286, 664-65, 671; migration, 28, 177; occupation, 38, 395, 671; food and agriculture, 56, 65, 83, 85, 165, 636, 671; income, 85, 115, 149, 151, 194, 286, 395, 671; finances, 288, 384-

- 85, 391, 395, 547, 555, 657, 661; trade, 319, 435, 571; gold and silver standards, 454-55, 460, 483-84; prices, 501
- Individuals: desires of, 80, 160-65, 171, 199; general, 97, 113, 157, 169, 192, 210, 220, 245, 314, 544; specialization disadvantage, 113-14, 344; association vs. independent operation, 121, 329, 348, 432, 612; purchases and expenditures, 168, 236-37; characteristic differences, 188, 190, 538-39; as investors, 222-23, 227, 383, 386, 392, 405-406, 414, 423, 553, 566-67; comparative advantage, 296, 299; returns, 307, 328; property rights, 340
- Industrial Revolution, 61, 174, 285, 621
- Industrialization and effects, 116, 177, 204, 256, 263, 284, 286-87, 532, 630-33, 635-37, 642-43
- Industry: population diversion to, 36, 38, 153, 636; production, 104, 278-79, 286-87, 318, 348; raw materials for, 119, 127-30, 230-31, 395, 577; changes and variations, 121, 196, 263; various factors, 121-22, 158-59, 431, 433; noneconomic, 180, 545, 623-25; trade, 225, 278-79, 287-89, 318, 623; by-products, 271-72, 306-307; growth of, 285-87, 575, 577; protectionism, 310, 330-32, 348, 352-53; infant, 330-31, 339, 344, 352, 631; finance, 386, 400, 575, 577, 633; heavy, 430, 637; light, 577 (*see also* Production; Manufacturing)
- Infant mortality, 13-14, 664-65 (*see also* Mortality; Death)
- Inflation, 148, 456, 473, 486, 492, 508, 590
- Inquiry into the Nature and Causes of the Wealth of Nations*, An, Adam Smith, 266-67
- Insects, injurious, 324
- Insecurity, economic, 380
- Inspection, import, 324
- Institutional contributions, U. S., 221
- Institutions (*see* Political institutions; Economic organizations; World political organizations)
- Insurance: maternity, 67; social, 275, 308; companies, 415; cartels, 432; brokerage changes, 468
- Intelligence, production factor, 195
- Inter-American Coffee Agreement (1940), 442, 444
- Interest: bond, 122, 265, 271, 638; use of, 211, 299, 390, 409, 565; and dividends, 219, 241-42, 391; U. S., 221, 227, 423; war debt, 228, 408; foreign investments, 234, 366, 465, 493; mortgage, 271-72, 519; rates, 274, 308, 349, 468-69, 476, 489, 500-502, 519, 625; payment, 325, 328, 335, 355, 407-409, 411, 417, 592, 595; balance of international payments, 414
- Interests: national group, 274-75, 635, 643; majority, 386; mutual, international, 633, 642, 644
- Interim Commission of Food and Agriculture, 609
- International Bank for Reconstruction and Development: activities, 464, 532, 538, 558, 561, 565, 567, 616, 662; functions and responsibilities, 580-99, 661
- International Commission of the Danube, 558-59
- International Conference on Trade and Employment, 626
- International Economic Conference, Geneva (1927), 319, 358-59, 373-74, 619
- International Economics and Statistics Unit of the Bureau of Foreign and Domestic Commerce of the U. S., 288-89
- International Institute for Agriculture, 557
- International Joint Commission for the U. S. and Canada, 558
- International Labor Office, 616
- International Labour Organization, 557, 559, 561, 627
- International Monetary Fund: activities, 464, 527, 532-33, 538, 552, 558-59, 561, 565, 567, 616, 627, 659; functions and future, 580-99; foreign exchange operations, 585, 658, 660; countries in, 657
- International organizations (*see* World political organization)
- International Postal Union, 559
- International Rubber Regulation Committee, 128, 434-36, 439, 442
- International Steel Cartel, 436-37
- International Telegraphic Bureau, 557
- International Tin Control Scheme, 438
- International trade organization, 617, 626-27
- International Unit, 148
- International values, law of, 298
- Invasion, 87
- Inventions, mechanical, 98, 174, 621
- Inventories, valuing, 220, 337
- Investment areas, 384
- Investment position, shifts in, 390-92
- Investments: returns on, 97, 337; handling, 122, 182, 274, 397, 500, 602, 620; interregional, 237, 379; under tariff quotas, 321, 341, 531; fixed, 341, 401; long-term, 384-85, 568; international, 384-86, 558, 587, 614; portfolio, 386-87, 390, 400-401, 415-17, 425; capital, 401, 641; private U. S., 414-17, 422-26; characteristics of, 417-20; rediscounting, 419

- Investments, foreign: British, 214, 217-18, 235, 243, 288, 391; direct, 217, 386-88, 390-93, 400-401, 420-22, 592; France, 239-40, 390; activity, 241-42, 245, 366, 392, 394-96, 414, 426-28, 437, 443, 465, 493-94, 499, 579, 591; amount of, 383-96; classification of, 385-86; short-term, 385, 388, 393, 396, 419-20, 422; in U. S., 387-88, 393, 415-17, 420-22, 425, 568; long-term, 388, 396, 401, 418-22; reasons for, 392-95; repayment, 410-12; International Bank and Fund, 580-81, 587
- Investments, U. S. foreign: general, 222-23, 225-27, 235, 289, 424-25; long-term, 387, 416, 420, 422, 424-25; direct, 387-88, 415-16, 425, 568; short-term, 415-17, 422, 424, 499
- Investors: activities, 241-42, 245, 341, 385-86, 410-11, 414, 427, 593, 662; payment of, 241-42, 413, 418, 426-27, 592; losses, 390, 410, 414; private, 394-95, 443, 565
- Invisible items: various, 214, 239-40, 251, 300, 396, 411, 466; U. S., 222, 225, 415; British, 243, 284, 288, 366; German, 410
- Invisible receipts, British, 214, 216
- Invoice values, imports, 255
- Iodines, Chile, 145
- Iowa, 96, 143
- Iran, 100, 103, 495, 507, 657, 661
- Iraq, 103, 311, 657, 661
- Ireland, 16, 256-57, 263 (*see also* *Eire; Northern Ireland*)
- Iron, production and supply, 75, 91-92, 118, 120, 133, 145-46, 293, 399, 577, 592, 637
- "Iron law of wages," 61, 65, 173-74
- Irrigation, 91
- Italy: food and agriculture, 83, 85, 92, 263, 367, 611, 632, 671; currency, 452, 454, 483, 498-99, 501, 507-508, 514-15, 528, 618; debts, 562, 569, 577; hydroelectric energy, 104; incomes, 83, 85, 149, 158, 194, 263, 671; migrations, 31-33, 39, 605; occupations, 153, 672; population, 7-9, 12-13, 15-17, 28, 30-31, 34, 51, 67-68, 83, 138-42, 189, 194, 263, 663-64, 667-68, 671-72; export-import trade, 111, 239, 263, 319, 669, 672
- James, William, 466
- Japan: population, 6-7, 9, 12, 16-18, 28, 32, 40, 51, 83, 138-42, 152, 187, 194-95, 258, 263, 544, 663-65, 667-68, 671-72; migrations, 28-29, 40, 544; industry and production, 42, 47, 99, 101, 104, 127, 141-42, 145, 152, 178-79, 258, 263, 279; climate, 46-47, 85, 87; export-import trade, 76, 111, 127, 178-79, 262-63, 278-79, 357, 364, 378; income, 83, 85, 115, 149, 155, 158, 194, 263, 636, 671; agriculture, 83, 85, 141-42, 195, 671; occupations, 142, 153, 671; size, 263, 672; political activities, 357, 378, 544, 563, 572; influence on China, 378; investments, 378, 384, 391; foreign exchange, 451-52, 483, 504, 507, 513, 528, 618; prices, 550-51
- Japanese-Americans, 40
- Java, 36, 138, 395
- Jevons, W. Stanley, 518
- Jews, migrations, 544
- Jobs, qualified workers for, 332
- Jute, 177, 368
- Kamchatka, 47
- Kansas, 143
- Kemmerer, E. W., 470
- Keynes, John Maynard, 430
- Kindersley, Robert, 217-18
- Kreps, Theodore J., 432
- Kroner, 466
- Krueger and Toll, security issues, 392
- Kuczynski, Robert R., 20-21, 65
- Kulischer, Eugene M., 605
- Kuznets, Simon S., 148-49, 157, 194
- Labor: activity, 32, 121, 200, 314, 332-33, 411, 427, 437, 486, 558, 614; shift in occupation, 50, 412; agriculture and food, 55, 57, 160, 174, 177, 197, 601; costs, 61, 297-99, 301, 334-35, 523, 552, 634; supply, 104, 293-94, 301, 347, 393; divisions of, 113-14, 267, 293, 312, 344; returns, 120-21, 273, 430, 442; mobility of, 181, 300, 412; production factor, 241, 299-301, 395; German, 297; U. S., 297-98, 331-32; employment of, 311, 347, 582, 620; power losses, 542, 605; rebuilding, 546, 574-75, 592; and capital, 633, 643; China, 634
- Labor time, 55, 57, 175, 197-98, 276, 297-99, 410, 601
- Labor unions, 40, 329
- Laborers (*see* *Workers*)
- Labour Party, British, 589
- Lace, hand-made, 293
- Laissez-faire economy: details of, 128, 196, 274, 297, 307, 314, 327, 335, 340, 443, 496; decline of, 272-74, 346, 349, 353, 634
- Lamb, 306
- Lancashire, cotton imports, 225
- Land: use of, 76-77, 144-45, 191, 347; general, 89, 94, 104, 170, 183, 300; and power, 89-105, 117; draining and clearing, 92, 306; variable, 104-105; labor and capital, 174, 540; for profit, 273, 337; taxation, 292, 340; public, 307; investment, 337, 540; as money, 455-57; recuperative powers, 545

- Land areas: fertile and arable, 42-45, 89-90, 140-43, 146-47, 158, 172, 240, 292, 295, 605; supply and size of, 78, 89-98; and trade, 260, 279, 672
- Land grants, railroad, 273, 307, 635
- Land settlement: costs, 36-40, 46-47, 57; climatic limitations, 42-44, 46-49, 50-52; locations, 48-54, 56-57, 138
- Landowners, 328
- Landry, Adolph, 193
- Language, 189, 300, 370
- Lard, 166
- Lardner's law of squares, 93, 259
- Latex, 76
- Latin America: agriculture, 124-25, 129, 234-35, 670; balance of payments, 229, 234; minerals, 234-35; export-import trade, 234-35, 258, 279-81, 283, 371, 617; investments, 235, 421; area and population, 279 (*see also* countries listed separately)
- Latin Monetary Union, 452, 454, 458, 517
- Latitudes, land cultivation, 42-43
- Latvia: reproduction rate, 16; production, 231, 532; currency and monetary standards, 483, 504, 507, 513, 515
- Lausanne Agreement (1932), 407
- Law, international, 334, 537, 629
- Lead, 51, 75, 91, 134, 177, 293
- League of Nations: future population estimate, 24; food, 117-18; activities, 141, 213, 216, 232, 236, 254-55, 320, 359, 580; Assembly and Council, 180, 367, 372; standard balance of payment form, 218-19, 255; Delegation on Economic Depression, 537
- Lebensraum*, 194, 230
- Legal services, 270
- Legal tender, full, 451-53, 505
- Lei, 466
- Leisure, human desire for, 199
- Lemons, 337
- Lenders: countries as, 383, 385, 394; productive use of funds, 397, 400, 402; repayment to, 399-400, 403, 408-409; position, 400, 419, 425, 595-96; private, individual, 409, 529; standards of, 417; own currency payment, 428, 579; psychology of, 591; current income, 594-95
- Lending: justification for, 385, 392-93, 397; fluctuations, 512
- Lend-lease, U. S.: items, 228, 288, 386, 538, 564, 570; claims, 547, 554, 563-67, 571, 578, 590, 593, 596-98; reverse, 563-64, 566
- Lend-Lease Act (1941), 563-64
- Lewis, Cleona, 229, 231, 232*n*
- Liabilities: corporation, 210-12, 216; individual, 212, 243; national, 212-13; British, 288, 389, 554, 571; foreign, 414, 426, 487, 503; bank, 419, 458, 485; short-term, 426, 503
- Liberalism, growth and decline, 328-29, 353, 360, 430, 540, 552, 634
- Liberia, 91, 126, 657, 661
- Liberty, fraternity, and equality, 314
- Libya, 37-38
- Liefmann, Robert, 432-33
- Life expectancy, 11-14, 20, 22, 53, 59, 65, 664
- Life maintenance, food for, 106, 163, 168, 174
- Life span, 11-13, 20
- Light, sun, 99
- Light and power, public control, 97, 307
- Lignite, German, 102
- Linen, 297-98
- Lippmann, Walter, 430
- Liquidation, foreign in U. S., 568
- Liquidity, maintenance of, 500, 503-504
- Lira, 301, 452, 454, 466-67, 474-75, 514-15, 585
- Lire, 508, 528, 590
- List, Friedrich, 330, 344, 352
- Literature, on national attitudes, 539
- Lithuania, 231, 483, 671
- Livelihood, 138-39
- Livestock, 541, 607-608 (*see also* Cattle)
- Living standards (*see* Standards of living)
- Loans: foreign, 170, 392-93, 397, 401-403, 408-12, 419-20, 424, 428, 529-30, 575-77, 587, 593, 595, 598, 619-20; bank, 270, 458, 468-69; use of, 286, 300, 325, 394, 419, 593; conditions of, 310; bilateral, 355; short-term, 391, 393, 401, 412, 419, 428, 530, 569, 575, 579, 591; long term, 392-93, 417, 420, 428, 569, 579, 590-91; servicing of, 399, 402-403, 418, 529-30, 587, 592, 595, 619-20; productive, 402-403, 579, 592; repayment of, 408-12, 593-94; U. S., 419, 425, 529, 596, 598; new postwar, 575-77, 579, 593, 598; International Monetary Fund, 586-87, 589, 595; direct, 587, 589, 591; private, 587, 589, 591, 595; International Bank, 587, 589, 591, 595, 662
- Local affairs, vs. world, 377
- Location (*see* Migration; Land settlement)
- Locomotives, 118, 399, 545, 638
- London: population and trade, 64, 260, 403, 503, 538; exchange, 455, 462, 468-69, 483, 504, 507; dominant financial center, 506, 532; blocked funds, 577
- London Economic Conference (1933), 359, 507, 561
- Longevity, 199
- Losses: types of, 134, 265, 337, 341, 360, 390, 415, 440, 528; capital, 210; on debts, 221-22, 247; U. S. on loans, 222, 428, 584; individual and corporation, 271; trade, 292-

- 93, 295, 317, 341, 343, 411, 641; spoilage, 324; foreign investment, 410, 414, 420, 424; exchange risks, 459, 512; war, 542, 572, 575, 578; International Bank loans, 587
Lubricants, 166
Lumber and lumbering, 54, 92, 146, 332-33
Luxembourg: trade volume, 260-61, 373, 669, 672; general, 657, 661, 672
Luxuries, 163, 179, 183, 230, 322, 593, 595
- McClelland, John C.**, 229
Machinery (*see* Tools and machines)
McKenna duties (1915), 375
McKinley Act (1890), 317
Mail contracts, 325, 625
Maize, 234 (*see also* Corn)
Malaria, 52, 195
Malaya, 384, 544
Malaysia, 129
Males, population increase, 11, 649-53
Malnutrition, 112, 115-16, 164-65, 609, 612
Malthus, Thomas Robert, 60-61, 63-65, 173-74
Malthusian theory, 6, 60-61, 64-65, 173, 292
Man, Isle of, 151
Management, industry, 195-96, 210, 349, 457, 552, 592, 641
Manchurian Incident (1931), 377-78
Mandats, French, 456
Manganese, 98, 133, 230, 264
Manhattan Island, 34, 141
Manpower, 20, 32, 161
Manufacturers: activities, 98, 108, 122, 127, 174, 272, 306, 330-31, 336, 343, 360, 393, 442, 600, 637
Manufacturing and manufactures: water power for, 104; raw and agricultural, 114, 116-17, 123-24, 133, 200, 230; growth, 153, 277, 286, 344, 432; U. S., 289-90, 421-22, 596, 623; direct costs, 305-306; investment in, 421-22, 641 (*see also* Industry; Production)
Manures, animal, 95
Marco Polo Bridge, 377
Marginal areas, 44, 47, 54, 78, 104, 144
Markets: various influences, 33, 50-52, 127, 160, 179, 224, 231, 286, 301, 313-14, 415, 510-11, 515, 549, 613; agriculture, 54, 95-96, 120, 169, 203, 612, 626, 635-36; competition for, 54, 121, 287, 310, 362, 366, 478; food, 55-56, 183, 601, 613-14; prices and costs, 95-96, 175, 308; access to, 104, 176, 294, 367, 640; foreign, 125-27, 181, 264, 310, 314, 325-27, 342-43, 348, 350, 415, 477, 631, 633, 636, 639; U. S., 125-27, 224, 273, 415, 568, 570-71, 624; rubber, 129-30, 623; glutted, 158, 167, 183; aid and restriction, 180, 183, 313-16, 325-27, 331, 350, 625; protection for domestic, 181, 286-87, 313-16, 325, 348, 350, 361; goods demand, 273, 602, 611, 614, 634-36; loss of, 290, 358; free, 350, 493; cartels, 431, 437, 441, 640; foreign exchange (*see* Foreign exchange market)
Markets, security: investment, 347, 385, 489, 662; New York, 424, 481, 502; quotations, 467, 504, 520
Markham, S. F., 86
Marks, value of, 301, 398, 401, 403, 405-406, 409, 452, 456, 466-67, 471, 507; blocked, 394, 509-10; appreciation and depreciation, 472-74, 479, 490, 494, 508-10
Marriage, 59, 66-70, 630
Marsh regions, 92, 140
Marshall, Alfred, 93, 284
Materials: war, 408, 626, 637; various, 410, 486, 523, 564, 570; U. S. crude, 596, 623
Mauritius, 28
Meat: production and trade, 51, 106-107, 109, 113-14, 120, 162, 183, 234, 272, 399, 607, 614; packing companies, 306
Medical care, 168, 635
Medical science, 12, 53, 65, 633 (*see also* Science)
Medicines, war relief, 603
Mediterranean basin, 95
Melons, 79
Mental efficiency, 84, 86, 183, 190
Mercantilism, 270
Merchandise: movements, 213, 215, 219, 238-39, 247, 255-56, 280-83, 285, 396; United Kingdom, 213-16; U. S., 221-27, 245, 247, 424; Europe, Latin America, 234 (*see also* Goods; Trade)
Merchant marine: British, 145, 464, 555, 628; U. S., 273, 288; aid and subsidy to, 273, 307, 310, 625
Merchants, 464
Metals: production, 94, 123-25, 289-90, 432, 439, 461, 600, 637, 670; precious, 120, 525
Mexican War, 520
Mexico: population, 7-8, 13, 64, 663; products, 91, 126, 143, 165, 177, 293; export-import trade, 280-81, 548, 672; finance, 384, 387, 425-26, 657, 661; monetary units and standards, 451-52, 483
Middle East, 571, 607-608
Middle West, U. S., 144
Migrants, 146, 176
Migrations: details, 6, 26-41, 46-48, 92, 395, 495, 574, 579; economic causes, 26, 28, 33-40, 49, 89, 367; politics and, 26, 31, 34-35, 40, 42, 48, 300; a population relief, 27, 54-56, 137, 155, 166, 172, 176-78, 252, 328,

- 395, 605, 630; costs, 36-38, 46-47; government controls and restrictions, 47, 66, 314-15, 328, 345, 354, 639 (*see also* Immigration; Emigration; and countries listed separately)
- Military considerations, population and, 60, 65-66
- Milk, 461
- Mill, John Stuart, 98, 174-75, 297-98, 303, 449, 474, 545, 621
- Milreis, 466
- Minerals: production and supply, 43, 51, 54, 75-76, 88, 94, 140, 145, 148, 234-35, 240, 293, 306, 335; nonmetallic, 123, 125, 289-90, 637, 670
- Minimum wage laws, 340
- Mining and mines, 51, 142, 147, 153, 386, 393, 421, 432
- Mining towns, 95
- Mint par of exchange, 467, 470-71, 492, 504
- Mints and minting, 452, 454-55, 462, 505
- Mississippi Valley, 121, 142
- Mitrany, David, 557
- Modern Currency Reforms*, E. W. Kemmerer, 470
- Mohair, 177
- Moisture, and crops, 46, 78-79, 83, 89, 91, 117
- Molasses, 281
- Monetary controls, 310-11, 450, 457-58, 494, 531, 640-41
- Monetary experiences: after World War I, 480-97; after 1930, 498-516
- Monetary policy, 636
- Monetary standards: varying, 301-302, 446-79, 470-72, 530; international, 450, 463, 480 (*see also* Gold standard; Silver standard; Paper standard)
- Monetary systems, 309, 449-64, 518, 635
- Monetary transactions, 480-86
- Money: handling, 80, 120, 191, 274, 299, 322, 379, 451, 463, 504; value of, 244-45, 299, 421, 582; for production and exchange, 270, 301-302, 312, 466, 496; managed, 380, 457-58; definition of, 449-50, 502, 517, 521; in detail, 449-464; acceptability range, 450-51, 464-65; standard, 451-58; U. S. rates, 453, 462-63, 481, 523; quantity theory of, 468; international, 487, 531-32; paper (*see* Paper money); capital (*see* Capital, money)
- Money Illusion, The*, I. Fisher, 450
- Money income (*see* Income, money, real)
- Money market, 450 (*see also* Foreign exchange market; Markets)
- Money mechanisms, 496
- Monoculture, 112-14, 345
- Monometallism, 451
- Monopoly and monopolies, 97, 121, 180, 304, 331, 340, 343, 432-33, 435, 437
- Moral restraint, 174
- Morality race difference, 190
- Morocco, 671
- Mortality, human, 13-14, 20-21, 53, 664-65 (*see also* Death rates)
- Mortgage security, 270
- Mortgages: land, 110, 418, 456; various, 170, 215, 241-42, 265, 271-72, 396, 519
- Mosquitoes, 53
- Most-favored-nation-clause, 356-64, 622
- Mountainous regions, 51, 79, 140
- Mountains of the Moon, 91
- Multilateral action, 356-57, 590
- Multilateral agreements (*see* Agreements, multilateral)
- Multilateral trade (*see* Trade, international, multilateral)
- Munitions industries, 438, 570
- Musicians, specialization, 344
- Mutton, 106, 120, 306, 326
- Napoleonic Wars, 212, 330
- National attitudes, 539-40
- National Bank of Austria, 323
- National Bank of Switzerland, 323
- National Socialism, German, 68-69, 178 (*see also* Nazi Germany)
- National System of Political Economy, The*, Friedrich List, 344
- Nationalism, growth of, 376, 392, 540
- Nationality, a social fact, 187-90
- Nationals: U. S., trade and finance, 222-23, 227, 414-15, 423, 566-67, 597-98; legislation vs. movements of, 354, 365 (*see also* Individuals)
- Nations: climate of, 86; differences between, 187-90; economy, 202, 209, 441, 450, 612, 629; aggressor, 368, 640; in United Nations, 558 (*see also* Countries)
- Natural laws, 87, 199, 274, 314
- Natural resources: general details, 27, 75, 89, 91-92, 120, 181, 203, 240, 260, 262, 273, 294, 379, 395, 430, 545; production factors, 50, 51, 113, 195, 299-301, 582; definitions, 75-77, 127; accessibility, 93, 346, 383; distribution and supply, 94, 146, 174, 176-79, 183, 205, 251, 293-94, 301, 396; value changes, 178, 195, 383; demand, 183-84; ownership, 340, 395; a capital, 396, 541
- Natural Resources Committee, U. S., 93, 96, 156
- Nature and nurture, 188, 190, 538-39
- Naumann, Friedrich, 371

- Nazi Germany, economic practices, of, 191, 355*n*, 365, 438, 563, 593, 606, 640
- Nazi Europe, economic position, 229-31
- Near East, 229, 371
- Nebraska, 143
- Neckar Salt Union, 432
- Needs: product, 80, 163-65, 183, 273, 322; food, 106-107, 119, 167; various, 522, 603-604, 635; and market demand, 602, 611
- Neo-Malthusianism, 186
- Netherlands, The: population, 3, 7, 9, 13, 16, 139-40, 142, 605, 663-65, 667-68, 671-72; colonies, 90, 127; export-import trade, 111, 128, 261-62, 319, 368, 373, 435, 669, 672; production, 130, 142-43, 546, 671; income, 156, 262, 671; area, 373, 672; finances, 384, 413, 421, 575, 617, 657, 661; currency, 483, 501, 508, 513-15, 528, 618
- Netherlands Indies: population, 36, 671; rubber, 76, 92, 98, 122, 127-28, 146, 345, 368, 435, 623; production, 100, 103, 127, 130, 671; trade, 113, 127, 373; income, 151, 671
- Nevada, 91
- New England, 121, 144, 267, 281, 412
- New Theory of Protectionism, The*, Josef Grunzel, 348
- New York: Greater, 55; city activities, 128, 260, 322, 434, 538; city finances, 237, 398-99, 403, 415, 465, 468-71, 481, 506, 577
- New York Federal Reserve Bank, 481
- New York Stock Exchange, 425
- New Zealand: population, 9, 16, 28, 85, 671; agriculture, 85, 177, 671; income, 151, 156, 262, 671; trade, 262, 280; currency and finance, 262, 483-84, 504, 567, 657, 661; industry, 532, 671
- Newfoundland: trade, 258-59, 280-81; economy, 311, 387, 425, 618
- Newport, R. I., 281
- Nicaragua, 281, 322, 408, 657, 661
- Nickel, 119, 133
- Nigeria, 130
- Nitrates: Chile, 76, 92, 145, 195, 285, 301, 624; production, 94, 146, 285
- Nobel Dynamite Trust, 432
- Nonagricultural products, 109-10, 119-20, 123, 170, 600
- Nonmetallic minerals (*see* Minerals, non-metallic)
- Norman, Montague, 481
- North Africa, 544, 607-608 (*see also* Africa; Union of South Africa; South Africa)
- North America: population, 4-5, 32, 59, 279; migration, 27-28, 33, 544; production, 103, 124-25, 279, 600, 607-608, 670; trade, 224-25, 257-58, 279-80; finance, 229, 388 (*see also* parts listed separately)
- North Sea, 81
- Northern Hemisphere, 44, 257, 280-81, 628
- Northern Ireland, 151, 435 (*see also* Ireland; Eire)
- Northern Rhodesia, 53, 294
- Northwestern China, 144
- Norway: population, 16, 671; agriculture, 142, 144, 594, 671; natural resources, 144-45; income and trade, 145, 262, 373, 594, 669, 671; finance, 483, 498, 657, 661
- Noteholders, 210, 215, 419
- Notes: receivable, 210, 217; government, 215, 460, 476, 486; serial, 418; bank, 456, 459-60, 471, 476, 486, 513, 531, 553; U. S. Treasury, 564; sales of, 638
- Nutrition, world, 114-116, 164-65, 558, 603, 609-12
- Nuts, 80
- Nyasaland, 53
- Nylon, 179
- Oats, 113, 608
- Obligations (*see* Debts)
- Obsolescence, 220, 271, 347, 545
- Occupations: population in, 32, 124, 138, 141-42, 147, 152-53, 203-204, 256, 601, 671; and immigrant assimilation, 40, 50, 54; shifts in, 50, 137, 287, 412, 579, 636; general details, 64, 111, 146*n*, 183, 296, 344; secondary and tertiary, 111, 124, 147, 152-53, 182-83, 204, 256, 286, 345, 601, 611, 630, 636, 671; primary, 124, 147, 152-53, 256, 286, 345, 601, 630, 671; distribution, 146-47, 671; incomes, 152-53, 286, 630
- Ocean currents, 79
- Ocean routes, 131, 628
- Oceania: population and income, 4, 28, 156, 279; production, 124-25, 127, 129-30, 607, 670; trade, 224-25, 259, 279-80; U. S. investments in, 387, 425 (*see also* parts listed separately)
- Office equipment, 303
- Office of Foreign Relief and Rehabilitation Operations, 603
- Ohio, 96
- Oils, 75, 100, 102, 125, 264, 607, 670 (*see also* Petroleum)
- Oklahoma, 143
- Old age, 12-13
- Oleomargarine, 120, 272, 306-307
- Onions, 107
- Open-door policy, British and U. S., 375, 378
- Operations: short- and long-term, 219; suspension of, debt, 638; open market (*see* Foreign exchange markets)
- Optical glass, 333
- Optimists, 274

- Oranges, 160, 165
 Orders: competition for, 265, 321, 350, 424, 426; export, 348, 366, 400; U. S. Treasury, 462
 Ores, 91, 121 (*see also* listed separately)
 Organization: business, 181; economic and political (*see* Economic organizations and institutions; World political organization)
 Oslo Agreement (1937), 373-74
 Ottawa Agreements (1932), 374-77, 379
 Ouchy Agreement (1930), 372-73
 Outlays, direct and indirect, 305, 335, 337-38, 349
Outline of History, The, H. G. Wells, 90
 Output, volume of, 121, 295, 298; cost per unit of, 295, 298 (*see also* Production)
 Overdrafts, foreign, 499
 Overhead, enterprise, 224 (*see also* Costs, overhead; Outlays)
 Overpopulation: details, 29, 33-34, 49, 54, 66, 138, 142, 154, 176, 186, 192-93, 198, 201, 204, 395, 614, 620; areas of, 51, 57; agricultural, 115-16, 204, 601-603, 611, 613-14, 630 (*see also* Population)
 Overproduction: agricultural, 32, 63; details of, 158-66; general, 160, 186, 362, 620; food, 163-64, 600, 602 (*see also* Production)
 Ownership, public and private, 210, 307, 325; government, 272-73, 638-40; natural resources, 340, 395
 Pacific Island, 47
 Packing-house, 120, 272
 Paints, 166
 Palestine, 7, 37, 544
 Pan American Union, 557
 Panama, 126, 483, 657, 661
 Pan-European, 371-72
 Paper, U. S. export, 289
 Paper money, 221, 223, 404, 406, 455-57, 462, 471-72, 478, 519, 531, 551
 Paper standard, 470-72, 496
 Paraguay, 483, 504, 567, 661
 Paris, 64, 260, 403
 Parliament, British, 504, 511-12
 Partnerships, 121, 329, 432
 Passports, 377
 Pasture land, 42-43, 50, 144
 Patents and processes, cartel control, 431, 437
 Patriotism, 539
 Patten, Simon N., 160, 330
 Payments: import-export, 111, 260, 269, 396; balance of (*see* Balance of payments); general, 181, 242, 289, 584; volume of, 241; means of, 270; cash or kind, 294, 572-73, 578; reverse, 355; agreements, 355; debt (*see* Debts)
 Payne-Aldrich Act (1909), 318
 Peace time: trade during, 180-81, 368, 546-47; attitudes, 303, 410; production, 333, 541, 570
 Pellagra, 165, 195
 Pelzer, Karl J., 48
 People (*see* Population; Human beings; Individuals)
 Permanent Court of International Justice, 372, 502
 Peru: trade, 112-13, 358, 669; finance, 483, 504, 657, 661
 Peso, Mexican, 452, 466, 507
 Petroleum: production and reserves, 91, 94, 99-102, 104, 145, 234, 235, 293, 421, 647; as power, 117, 177
 Petroleum Administration for War, 101
 Philadelphia, 237
 Philippine Commonwealth: population and production, 28, 126, 155; government accounts and finances, 221, 229, 455, 483, 657, 661
 Phosphates, 264
 Physical efficiency, 84, 86, 183
 Physiological welfare, 201
 Physique, race differences, 164, 188-90
 Piece goods, 195, 624
 Pin-making, 266-67
 Pittsburgh, 84
 Plains regions, 79
 Plants, nutriment, 95, 99, 117
 Plants and equipment, industrial: general, 196, 287, 347, 393, 401; production and costs, 265, 287, 295-96, 305, 336-37, 412; marginal and submarginal, 331; subsidiary abroad, 393; specialized, 638; depreciation (*see* Depreciation); obsolescence (*see* Obsolescence)
 Plastics, 117
 Poincaré government, 490
 Poland: population, 7, 11, 16, 28, 30-31, 138-41, 204, 630, 663, 671; vs. Germany, 30, 376-77, 573-74, 647; migrations, 30-33, 204, 574, 605; general, 319, 483, 657, 661; trade, 355, 372
 Political controls, 90-91, 202, 367, 394-95, 443
 Political economy, 61, 272, 537, 557
 Political institutions, 13, 146, 294, 350, 629
 Political pressures, 183, 313, 324, 349
 Politics: vs. population, 13, 65-66, 138, 146, 251-52, 349; a migration factor, 26, 31, 34-35, 40, 48, 300, 601; tensions in, 104, 303, 353; natural resources and agriculture, 110, 181-82, 367, 611; U. S., 110, 225-26;

- production, 183, 185, 309; on finance, 225-26, 394-95, 427, 443, 488, 591; Europe, 229, 378; and trade, 294, 304, 311, 313-14, 324, 330, 343, 348, 350, 436, 438; stability of, 294, 500, 542; changes, 350, 555; foreign exchange effects, 462, 478-79, 502-503, 509, 528; world repercussions, 590, 629
- Pools, 329, 431
- Population: size of, 3-25, 240, 395; distribution and redistribution, 4-6, 10, 14, 17-25, 42-57, 78-79, 83, 87, 89, 114-16, 138-47, 151, 153, 182, 184, 202, 251-52, 339, 395, 495; future, 20-24, 57, 59, 63-65, 137; migration, 27-30, 40-41, 54, 56, 155, 166, 172, 176-78, 252, 328, 345, 395, 542-44, 579, 601, 605, 630; pressure, 27-32, 34, 53, 55-56, 65-66, 137-38, 142, 146-47, 154, 166, 186-87, 192, 194, 201, 283-84, 395, 601, 630; sufficient resources for, 55, 181, 186-205; theories, 59-65; food and agriculture, 60, 79, 83, 85, 106-117, 166, 168, 174, 195, 197, 601, 606-607, 636; policies, 65-71, 137-38, 152, 201; density, 83, 85, 89, 111, 138-46, 142, 153, 172, 176, 178, 192, 194-96, 251-52, 257-58, 260, 263, 286, 329, 339, 345, 395, 495, 601; production factor, 83, 85, 142-46, 152, 299; world, 110, 137, 383, 395, 672; incomes of, 147-53, 168, 194, 376, 619, 621; optimum, 187-94, 198, 201-205; and trade, 279, 286, 376, 619; excess (*see* Overpopulation)
- Population growth: decline of, 5, 21, 59, 182, 197, 203; increase and natural increase, 6-11, 13-14, 20, 22, 25, 29, 56, 59-61, 65-66, 98, 134, 158, 173-76, 184, 186, 193, 204, 286, 292, 345, 367, 431, 607, 633, 663
- Pork, 106, 117, 306, 354, 632
- Portugal: general, 16, 143, 384, 671; African colonies, 90; exchange, 495, 498, 504, 507
- Postal service, world, 558
- Potash, 647
- Potatoes, 79, 113, 177, 183, 332-33, 461, 606-608
- Potsdam Declaration (1945), 572, 574-75, 579, 647-48
- Poultry, 106-107, 607
- Pound, British sterling: general action, 301, 386, 401, 455, 466, 468, 494, 506-507, 510, 515, 528, 577, 592; gold content, 338, 462-63, 467, 504; price vs. dollar, 468-69, 471-72, 505-506, 585, 590-91, 617; depreciation, 472, 475-77, 479, 505-508, 510, 512; over- and devaluation, 478, 492, 512; stabilization, 489-90, 512 (*see also* Sterling)
- Poverty, 155
- Power: and land, 89-105; production use, 92, 99, 117, 125, 177, 617, 670
- Powers, major, 395
- Prairie Provinces, Canada, 51
- Pratt, Wallace E., 101
- Preferences, trade, 377-78
- Pressure groups, 307, 328, 612, 631
- Prestige, synthetic optimum, 203
- Prices: food and agriculture, 44, 62, 107-10, 114-16, 118-19, 134, 144, 160, 170-71, 177, 600-601, 611, 613, 624; raw material, 76-77, 121-23, 125, 127-28, 134, 178-80; rise, 97, 366-67, 553, 640; elasticity and inelasticity, 107-108; general, 109, 229, 316, 335, 440, 443, 457, 461, 500-501, 531, 625-26; fluctuations, 109-10, 118-19, 158-59, 170-71, 383, 442, 474, 482, 496, 512, 520-24, 531, 586, 624-26, 640-41; commodity, 158-59, 167-68, 273, 301, 342-43, 489, 511, 549-53; selling, 159, 271-72, 295, 341, 523, 552, 581; flexibility and inflexibility, 170-71, 477, 519; export-import, 255, 301, 315, 320, 361, 374, 595; and cost, 295, 332, 335; gold shipment, 298, 458, 460, 472, 476, 482, 485-86, 489; and monopoly, 304, 431-32, 437-38, 441, 639-40; market effect, 308, 312, 316; supply and demand on, 316, 331, 361; domestic, 316, 361, 552; controlled and administered, 320, 353, 361, 432, 508, 525, 620, 640-41; under tariffs, 321, 361-62; dumping, 342-43, 511; artificial rise, 431, 437; currency and exchange valuation, 463, 468-69, 470-72, 474-75, 478, 514, 517, 519-20; wholesale, 501, 550-51; and gold production, 520-24; parity, 595
- Principal, payment of, 228, 241-42, 271, 392, 407-408, 411, 417, 423; amortizing, 592
- Principles of Political Economy*, J. S. Mill, 98
- Private enterprise (*see* Enterprise, private)
- Privileges, trade agreement, 357-58
- Producers: food, 108, 116; primary, 108, 125, 127-28, 130, 134, 169, 331, 341, 600-601, 610-12, 624, 670; goods, 118, 124, 269, 300; number of, 121-22, 196; various, 158, 265, 270, 287, 432, 435-36, 440, 442, 600-601, 626, 638, 640; profits, 159-60, 368; prices, 170, 552; domestic vs. foreign, 181, 183, 314-16, 320-21, 331, 334-36, 342-43, 361-62, 410, 426, 600, 625-26, 640; U. S., 224, 273, 570; costs variation, 270, 331, 335-36, 625
- Production and productivity: population for, 20, 27, 32, 142-46, 152, 172, 191-92, 196, 233; capital for, 36, 108, 240-41, 395; climate on, 42-43, 84, 88; land for, 43-44, 89-94, 104; world primary, 45, 94-95, 109, 123-24, 196, 570, 603, 612, 631, 636-38; increased, 62, 171, 174-75, 183, 198, 293, 339, 540, 636; general details, 80, 92, 121,

- 145, 174, 182-83, 200, 240-42, 264-65, 276, 349, 367, 402-403, 496, 545, 567, 638; output maintenance, 121-22, 182; financial mechanism aids, 122, 466, 482, 510, 517; prices, 123, 273, 299, 305, 367, 500, 552, 582; income from, 153, 183, 213, 457; output curtailment, 159, 171, 600; abundance, 167, 171; distribution, 174-75, 517, 620; capacity, 183, 343, 349, 399, 413-14, 441-42, 546, 630; shifts in, 184, 271, 624, 637-38; quality of, 194, 267, 293; maximum per capita, 191-94, 201, 203-204; costs, 195, 197, 266-67, 270-72, 285, 294-96, 299, 301, 305, 308, 312, 317, 334-36, 339, 361, 393, 440, 449; demand changes, 201, 287; tools and machines (*see* Tools and machines); trade, 264-66, 286, 404, 619-20, 626; and business, 265, 441; volume of, 267, 517, 638; specialized, 270, 344-45; tariffs, 307, 317, 321, 334-36, 361, 364, 639; domestic vs. foreign, 313-15, 347-48, 361-62, 631; war, 334, 541, 574, 636; dumping, 341-43; diversification of, 344-46, 353; marginal, 395-96; borrowed funds for, 399, 413, 427-28; excess (*see* Overproduction); trusts and cartels, 431-33, 438, 441-42, 639-40; government control and aid, 443-44, 641; postwar, 502, 545, 590, 604-605, 642; stockpiles, 625-26
- Production, factors of: 104-105, 194-96, 299-301, 311, 314, 328, 510, 542, 552, 592, 619-20, 630, 639; full employment of, 295, 346-48, 353, 582, 630; mobility of, 300, 411
- Products: evaluation of, 92, 133-34, 631; surplus, 167; general details, 286, 334, 343, 347-48, 361-62, 365, 394, 404, 415, 500, 570, 631, 636; diseased, 324; markets for, 393, 546-47 (*see also* Markets)
- Professions, 147, 306
- Profit and loss account (*see* Income account)
- Profits: immigrants, 38; various, 144, 159, 307, 321, 443, 513, 524, 634; production, 181, 331, 368; undivided, 211; sales, 265; individual, 273, 314, 328; dumping, 343; borrowed funds, 417
- Progressivism, 329
- Promises to pay: payment of, 294, 407-409, 531, 638; U. S., 413-14, 424, 500, 564; sale of, 487
- Promissory notes, 413
- Property: corporation control, 210; physical, 210, 290, 537, 542, 544-46, 592; real, 212; personal, 212, 271; foreign, 215; rights, 340; surplus French, 566
- Proportion of factors, law of, 204
- Prosperity: factors of, 114, 148, 180, 182, 275, 359, 367, 426, 428, 642; indivisible, 269, 619
- Protection and protectionism: trade, 313, 325-27, 371, 376, 396, 410, 422, 491; economic details, 313-327, 360, 375, 426, 552, 618-19, 631, 640-41; growth of, 314-15, 363; devices of, 315-24; pro and con, 328-52
- Proteins, 106, 164, 231, 613
- Psychology, human, 65, 87, 182, 537, 591
- Public controls: growth and increase, 87, 97, 272-76, 311, 326, 328, 349, 618; rubber, 129-30 (*see also* Controls; Government)
- Public opinion, influence of, 108, 158, 326, 349, 630
- Public utilities, 337-38
- Public works, U. S., 276, 571
- Publicity, on food, 165
- Purchasing power: increased, 56, 286, 290; consumer, 116, 165, 167-68, 175, 268, 621; food, 163, 602, 611, 613; individual, 273, 602, 611, 613; German, 406; mass, 443, 621; devaluation and, 463, 505; money, 471, 519, 521; parity, 473-74, 478, 492
- Pure food laws, 276, 309, 635
- Pyrites, 145
- Quarrying, 147
- Quick, Herbert, 26
- Quotas: various, 197, 282, 314, 320, 323-24, 350, 363, 436, 494, 514, 552, 618, 622; import details, 320-22; allocation of, 362; restrictions, 373; foreign exchange effects, 466, 474-77, 532
- Quotations: market (*see* Markets, security); foreign exchange, 470-72, 512, 581
- Races: and migration, 26, 34-35, 40, 252; requirements, 46-47, 158; population quality, 187-90, 639
- Radio, 97
- Railroads: activities, 119, 212, 307, 542; government aid and control, 198, 273, 325, 340, 404, 635; U. S., 273, 325, 421-22
- Rainfall, 47, 49-50, 52, 78, 91, 99, 117, 144, 169, 193
- Rathenau, Walter, 199-200, 407, 471
- Rationing, 608
- Raw materials: production, 32, 109, 123-25, 268, 392-93, 600, 637; general details, 33, 113, 117-33, 143, 202, 275, 466, 575, 592, 633, 636; supply of, 55, 120-23, 367; an economic factor, 98, 117-133; access to, 104, 176, 179-81, 366-68, 431, 577, 639-40; export-import volume, 114, 125-34, 197, 230, 241, 251, 255-57, 278, 285, 358, 476, 494, 510, 642-43; demand for, 118-22, 125; consumption of, 119, 127, 129, 133-34, 260, 600; human beings' need, 120-34;

- prices, 121-23, 125, 127-28, 134, 180, 519; producers, 125, 127-28, 130, 134; interdependence, 176-77, 285, 631, 633; policies, 179-80; receipts and sales, 181, 211, 539-40; distribution, 367-68, 600
- Raw Materials and Foodstuffs*, League of Nations, 117
- Rayon, 179, 285
- Real estate, 455-57, 489
- Receipts: various, 159, 215, 317, 638; national, 213, 217, 219, 237-38, 242; United Kingdom, 217-18, 366; U. S., 221, 227, 316; individual, 236-38, 242, 271; corporation, 237-38, 242
- Reciprocal Trade Agreement program, 363
- Reconstruction: physical postwar, 358, 502, 537, 542, 544-46, 554, 562-63, 565, 571, 575-77, 592, 604-605
- Reconstruction Finance Corporation, 326
- Rediscount rates, 481-82, 486, 493, 531
- Refugees, political and religious, 606
- Refunding: issues, British; for debt payment, 409, 418
- Regionalism, 376-80
- Regions: production factors, 113, 286, 294-96, 299-301; specialization and exchange, 124, 293, 344-45; balance of payments, 228-35, 237, 379-80; interdependence of, 251, 260, 263, 309, 339, 345-46, 379-80; trade, 260, 279, 287, 300, 311; various factors, 260, 279, 293, 600; industrialization of, 263, 286-87, 294, 577, 633; natural resources, 263, 293; agriculture, 277, 286-87, 293; costs, 277, 296, 312; population distribution, 279, 395; trade agreements, 358-59, 370-80; international and inter-regional accounts, 396; federation of, 557; declining areas, 623-25 (*see also* Countries; Continents; and listed separately)
- Rehabilitation, war, 603-606, 609
- Reichsbank: notes, 456, 471; *Anschluss*, 503, 593
- Reichsmark, 456, 471, 474, 508-509
- Reindeer, raising of, 79-80
- Relief, private and public, 275; war, 408, 558, 569, 603-606, 609
- Religion, influence of, 64, 66, 87, 189, 252, 539
- Remittances: U. S. personal, 221; British private, 355
- Rent, 237, 299, 301, 306, 328
- Rentenbank, German, 456, 471, 474
- Reparations: war, 394, 397, 403-12, 427, 491, 573, 577-79, 593, 647-48; claims vs. Germany, 408-10, 419, 464, 494, 562, 568, 593
- Repatriation: foreign assets, 424, 481, 488, 491, 502; capital, 530
- Report of the Section on Consumption Levels and Requirements, U. N. Conference on Food and Agriculture, 602
- Reproduction rates, net and gross, 10, 14-17, 20, 59, 63, 67-68, 137, 176, 184-86, 666-67
- Reputations, 248, 410, 425-27, 553
- Research, agricultural, 613
- Resources: as related to people, 27, 75, 136-205; natural (*see* Natural resources); supply adequacy, 76-77, 186-205; uses of, 92, 192, 294, 367, 540, 582-83, 585, 587; future trends, 184-85; allocation of, 273, 307, 634-35; full employment of, 630-31, 636, 639-40, 642
- Restrictions: freedom from, 328; on borrowed funds, 398, 400; on migration (*see* Migrations)
- Restrictions, trade: details, 121, 180, 278, 314-15, 320, 322, 326, 329, 354, 356, 358, 360, 363, 375-76, 378, 407, 410, 495, 511, 515, 618-19, 622-23, 626; methods, 313, 317, 324, 362; and discrimination, 321-22; raw materials, 366-68 (*see also* items listed separately)
- Retail and wholesale distribution, 421
- Retailer, 316
- Retaliation, trade, 354, 361
- Returns, rates of: changing, 122, 337, 383; agricultural, 144, 613; individual, 192, 273, 328; foreign investment, 392, 395; on production resources, 540; diminishing (*see* Diminishing returns, law of)
- Revenue, government, 315-16, 643
- Revolution: economic, 629; industrial (*see* Industrial Revolution)
- Rhodesia, 37
- Ricardo, David, 61, 79, 90, 173, 297, 303, 525
- Ricardo's theory on metals, 525-28
- Rice, 79-80, 106, 183, 606
- Richter, J. H., 231
- Rigidity, physical and financial, 637-38
- Risk, foreign investment, 392
- Rist, Charles, 481
- Road-building, 166
- Rocca Agreement (1936), 355
- Rohstahl Verband, 436
- Roosevelt, Franklin D., 179, 504
- Roosevelt, Theodore, 10, 430
- Rubber: vulcanization, 76, 93, 127; natural, 76, 93, 166, 177-78, 368, 466, 612; U. S. imports, 76, 126-29, 264, 434-35; synthetic, 76, 126-30, 345, 623; Japan, 76, 127; Netherlands Indies (*see* Netherlands Indies); demand for, 118, 434-35; production, 122-23, 126-30, 368, 434-35, 439, 442, 637; Brazil, 126; Mexico, 126; trade, 126-30; prices, 127-28, 434-35; Great

- Britain, 128, 368, 435, 442; France, 128, 435; Soviet Russia, 129; supply, 129, 436, 623, 626; reclaimed, 435
 Rubles, 308-309, 338, 467
 Ruhr Valley occupation (1923), 407, 578
 Rules of the game, 469-70, 476, 480, 485-86, 506, 514, 582, 640
 Rum, 281
 Rumania: population, 13, 204, 663, 671; production, 100-101, 204, 532; agriculture, 143, 204, 671; currency and finance, 483, 513, 515, 572-73, 648
 Rupees, 455, 466
 Rural areas, population of, 56, 64, 67, 603, 610
 Runtania, 586
 Russia (*see* Soviet Russia)
 Rye, 606

 Saar Territory, 17
 Safeguarding of Industries Act (1921), 375
 Sahara Desert, 42, 50, 52, 91, 138
 St. Pierre and Miquelon, 258-59
 Salaries, 265, 307, 332 (*see also* Wages)
 Sales: volume of, 159, 265, 271-72, 441; goods, 200, 211, 374-76, 638; receipts from, 211, 271, 317, 343; national, 217, 341-43; foreign, 325-26, 343, 547; security, 392-93; asset, 418; cartels and, 433, 437; discrimination, 639-40
 Salt-water flooding, 546, 605
 Sandy soil areas, 79
 Sanitation, 12, 633
 Savings: various, 182, 204, 241, 531, 595; corporation, 237-38; government, 237-38, 242; individual, 237-38, 275, 308
 Scandinavian countries, 31, 355, 371, 504, 507, 605 (*see also* listed separately)
 Scandinavian Union, 372
 Scenery, 148, 333
 Schacht, Hjalmar, 481
 Science: advances of, 55-56, 63, 87, 188-89, 192, 204; social, 214-15; medical (*see* Medical science)
 Scotland, 294-95
 Sea: uses, 81, 89, 99; level, 92, 244
 Seaweed, 145
 Securities: use of, 210, 392-93, 418, 468-69, 533, 577; British, 217, 389, 489-90, 547; U. S., 221, 387, 420, 424, 567; sales, 237-38, 392, 409, 426, 502, 515, 571; government, 237-38, 458-59, 513, 571; foreign, 242, 386, 389, 392-93, 397, 405, 411, 424, 500, 547, 567; German foreign, 392, 406; French government, 405, 490; short-term, 484, 513; International Bank, 662
 Security, national, 203, 380, 442, 540, 563, 624
 Seeds, 95, 612
 Seigniorage, 462
 Semiarid regions, 43
 Semiluxuries, 179
 Semitics, 189
 Self-sufficiency, economic: countries, 112, 202, 209, 285, 290, 339, 359-60, 379, 624, 631; food, 177-78, 256; possibilities, 197, 285, 353, 632; growth of, 209, 392, 540; European, 230-31, 624; vs. dependence, 333-34, 346; losses from, 360
 Sellers: market, 158; various, 341, 360, 511
 Selling, change in methods, 431
 Service, professional, 306
 Service items, growing importance of, 239
 Services: general, 211, 398-99; European, 230, 234; U. S., 245 (*see also* Goods and services)
 Sheep, 79-80, 120, 272
 Shelter, immigrant, 54, 78
 Sherman Antitrust Act (1890), 326, 431, 442
 Shilling, Austrian, 401
 Shipbuilding, 324-25, 415, 628, 637
 Shipping: tonnage and cost, 92, 284, 317, 374, 515, 591, 628; British, 214, 217-18, 288, 366, 555; U. S., 221-22, 415, 555, 591, 628; government aid to, 314, 325
 Shoes, 166-67, 270, 467
 Short-term items, 388
 Siam, 127-28, 130, 435, 504
 Siberia, 4, 44, 48, 53-54, 155
 Silk, raw, 127, 178-79, 264, 267, 285
 Silver: Nevada, 91; Mexico, 91, 293; demand, 120, 517, 530; British coin, 213-14; trade, 221-22, 225, 238, 504; U. S., 221-22, 225, 517; movements, 298, 466; industrial and nonmonetary, 306, 471; French, 404, 458; as money, 452-54, 525; 530; demonetization of, 454, 530; price of, 462, 470; qualities of, 519
 Silver standard, 452-54, 462, 470-71, 496 (*see also* Monetary standards)
 Single tax, theory of, 292
 Sinking fund, 418, 428
 Skin pigmentation, 188, 538
 Slaves, German trade, 281
 Smith, Adam, 266-67, 294, 303, 344
 Smoot-Hawley Act (1930), 327, 362, 364, 375, 415, 635
 Smuggling, 315
 Smuts, Jan Christiaan, 96
 Snow, 99
 Social consciousness, 442-43, 482, 496
 Social controls: handling, 97, 307, 335, 360, 540; growth of, 338, 634 (*see also* Controls; Government; Economic controls; Political controls; Public controls)

- Social and Economic Council, 614
 Social fields, 87, 94, 137, 275
 Social security, 274, 552, 620, 635
 Socialism, 80
 Socialists, 38, 539
 Socialization, 307, 309, 496
 Society: general details, 65, 104, 190, 271, 276, 328, 560; income effect, 171, 327, 349; and resources, 176; changes in, 303, 376, 579; production returns, 307, 349; protectionism and, 313, 328, 340; individual freedom, 330, 340
 Soil: fertility, 43, 51, 75, 78-79, 83, 92, 94-95, 121, 134, 143-44, 293, 331, 612; erosion, 76, 94-97, 114, 134; cultivation of, 89, 121, 192 (*see also* Cultivation); natural and in-destructible powers of, 90, 94, 117; economic productivity, 94-95; arable (*see* Arable land)
 Sousa project, 37
 South Africa: population, 28, 44, 48, 52-53; gold, 91, 93, 121, 195, 294, 524, 527; agriculture, 96, 195, 607; trade, 280, 326, 437; finance, 384, 483, 504 (*see also* Africa; Union of South Africa; North Africa)
 South America: population, 4-5, 59; migration, 27-28, 33, 48, 53, 544; food, 165, 607; U. S. trade, 224-25; finances, 229, 387-88, 410, 425, 484, 507 (*see also* countries listed separately)
 Southern Hemisphere, 280 (*see also* parts listed separately)
 Sovereign, British, 452
 Sovereignty: state and nation, 309, 353, 450, 557-58, 641; under United Nations, 561, 580, 582, 644
 Soviet Russia: population, 16-18, 24-25, 59, 83, 261, 263, 279, 653, 671-72; migration, 32, 605; general, 53, 360, 573, 628-29; food and agriculture, 83, 87, 110, 286, 608, 671; incomes, 83, 149, 156, 671; industrial production, 98-101, 103, 129, 261, 286, 308-309, 338, 532, 671; export-import trade, 111-12, 233, 258, 260-61, 263, 279-80, 355, 669, 672; finances, 234, 399, 401, 409, 564, 572-74, 582, 584, 587, 647-48, 657, 661; area, 261, 263, 279, 672; government ownership and controls, 273, 618, 634
 Soy beans, 166
 Spain: income 149, 671; tariff levels, 319, 332, 672; finances, 384, 413, 528
 Spanish American War, 520
 Specialization: individual, 112-14, 293-94, 344-45; geographic, 124, 267, 312, 344; occupational, 146-47, 345; production, 260, 348; trade, 281, 344-45, 631; and exchange, 270, 293-94, 339, 639; British, 284, 345
 Speculation, security, 424, 481
 Speech, natural differences, 189
 Spoilage, import losses, 324
 Stability: political and economic: 290, 428, 441, 498, 500, 506, 514, 530, 532, 540, 552, 563, 576, 591, 593, 595, 636-37, 640; internal, 349; foreign exchanges, 489-90, 498, 512, 522, 584-85, 590, 642; price, 551-53
 Stabilization, commodity, 444
 Staley, Eugene, 384, 394-95
 Standards of living: details, 10, 44, 49, 52, 63, 66, 111, 152, 166, 171, 175, 182, 204, 230, 233, 251-52, 258, 286, 290, 339, 346, 620, 633, 636-37; population distribution, 42, 138, 142, 192-93; low, 54, 186, 241; higher needed, 602, 611, 630; F A O, 609-10
 Standstill agreements (*see* Agreements, standstill)
 Starvation, 112, 163, 167, 174, 182
 State, strengthening of, 203, 270, 450
 Steel, 118, 131, 133, 177, 264, 267, 331, 411, 436-37, 577, 637, 644
 Steel rails, 118-19, 269, 305, 637
 Sterling area, 310-11, 360, 506-507, 571, 617-18 (*see also* Pound)
 Sterling credits, foreign owned, 366
 Sterling exchange, 355, 485, 532
 Sterling standard, 464
 Stevenson Plan, 434-35, 442
 Stock piles, 625-26
 Stockholders, corporation accounts, 210
 Stocks: sales receipts, 159, 211, 362; accumulated, 159, 342, 347, 362, 442, 541-42; general, 218, 225, 396; purchase of, 237-38, 241-42; common and preferred, 386-87, 420-22; buffer, 444
 Stockyards, 272, 306
 Stone, building, 145, 592
 Storms, 84
 Stoves, 118
 Strains, internal, 137, 158, 170
 Strains, international: changing conditions, 80, 376; causes of, 90, 138, 142, 146, 176, 229, 252, 353, 358, 364, 379-80, 395, 403, 457, 487, 502, 533, 553, 577, 624, 644; geographic factors, 90, 184, 209; food and raw materials, 107, 112, 116, 600-601; world economic, 175-81; public policies, 187-88; trade, 252, 350, 371-72, 374, 410; and product supply, 367, 638; over world organization, 378, 559, 561; currency, 476-77, 518-19; British, 481, 490, 506; Creditanstalt, 495, 503
 Strength, economic, 194
 Strike (1926), 477

- Strong, Benjamin, 481
- Submarginal areas, 104, 144
- Subsidiaries, corporation, 386
- Subsidies: food and agriculture, 112, 114, 116, 177, 197, 285; export, 116, 276, 310, 325-26, 595, 618; aid, 183, 273, 307, 325, 555
- Subsistence, 60-61, 65, 173-74, 193, 251
- Substitutes, production, 636
- Subtropical regions, 43
- Sudan, 311
- Sugar: cane, 51, 55, 111-13, 117, 177, 264, 281, 345, 467, 606-607, 669; beets, 112, 114, 177, 608
- Sulphur, 264, 411
- Sumatra, 36
- Summer, 84, 88
- Sun, a power source, 89, 99
- Supply and demand, law of, 184, 298, 321, 331, 361, 440, 449, 462, 467-68, 478, 520
- Supply and supplies: natural resources, raw materials, 76-77, 120-23, 159, 167-71, 184, 367, 393; elasticity of, 122-23; sources of, 264, 546-47, 636; production factor, 298, 301, 636; effects of, 312, 316, 361, 400; wartime, 366, 563
- Surplus, corporation, 211 (*see also* Over-production)
- Sweden: population, 7, 12, 14, 18, 139, 142, 261, 650, 663-65, 667-68, 671-72; natural resources, 142, 144-45, 399; production, 142, 532, 671; agriculture, 142-43, 671; export-import trade, 261-62, 319, 373, 547-49, 669, 672; income, 262, 671; finances, 384, 391, 575; exchange and monetary standards, 483, 499, 527-28, 582, 585; prices, 501, 550-51
- Switzerland: population, 16, 671-72; industry, 104, 293; export-import trade, 111, 261, 319, 323, 547-49, 672; incomes, 149, 151, 156, 671; finances, 384, 421, 575; exchange and monetary standards, 454, 483, 499, 507-508, 513-15, 527-28; prices, 501, 550-51
- Syndicates, 397-98
- Synthetic optimum, 201-205
- Synthetics, 117, 636
- Syria, 671
- Tanganyika, 53
- Tariff Act (1930), 363
- Tariff Level Indices*, International Economic Conference, 319
- Tariff levels, calculation of, 318-20
- Tariffs: for home production, 112, 114, 177; legislation, 273, 356, 363; import, 313, 326, 595; protective, 316-20, 329-32, 348, 371, 506, 552, 618, 621-23, 635; rates, 317-19, 326, 356, 373; operation of, 321, 362, 393, 437; invisible, 324; equalizing production costs, 334-36, 361; abolition or reduction of, 340-41, 359, 373-74, 567, 622; autonomous, 356; multiple, 356, 374; quantitative controls, 360-61; U. S. (*see* U. S., tariffs)
- Taussig, F. W., 297
- Taxes: various, 67, 210-11, 274, 292, 309, 315-16, 428, 456, 524, 635, 643; and income, 171, 316, 635; U. S. federal, 211, 276; indirect cost, 306, 308; indirect and direct, 315-16; German, 406
- Taylor, Griffith, 44, 50, 52
- Tea, 109, 113, 234
- Tea Agreements, 444
- Technology: agricultural, 46, 54-57, 76-77, 90, 144, 160-61, 197, 203, 277, 285, 601; advances in, 57, 61-63, 93, 134, 137, 167, 174-75, 182-85, 192, 201, 205, 252, 284, 287, 303, 345, 347, 431, 438, 495, 545, 555, 614, 620-21, 624; modern, 61-63; mining, 100; petroleum, 102
- Telephone, materials for, 132-34, 176
- Telephone and telegraph companies, 307
- Television, 97
- Temperate zone, 43, 48
- Temperature, 46-48, 52, 78, 83-84, 86
- Tennessee Valley Authority, 635
- Terminology, economics, 214-17
- Territorial expansion, 194, 202
- Territorial redistribution, 33
- Territories, reconstruction and development, 587
- Texas, 143
- Textiles: production, 64, 316, 411-12, 432, 577, 637; fibers, 123-25, 670; U. S., 273, 289-90, 307, 412; tariffs, 307, 331, 340-41
- Thailand, 126
- Theodore, Australia, 36
- Thompson, Warren S., 63
- Tides, a power source, 89
- Tillage practice, 95
- Timber, 92, 94, 144, 148, 647
- Time, a production factor, 411-12
- Tin, 130, 133, 177, 235, 293, 333, 402, 439, 559
- Tobacco, 107, 113, 264
- Tools and machines: for production, 174, 195, 198, 200, 203, 240-41, 289-90, 397-99, 413, 541, 612, 620, 630, 637-38; purchase of, 287, 397, 400, 413; mobility of, 300, 401; as capital, 398, 541; depreciation (*see* Depreciation); reconstruction, 575-76, 592
- Top soil, 114
- Topography, 539
- Totalitarian regimes, 601, 635
- Tourist traffic, 145, 148, 222, 411, 494

- Touzet, André, 30
- Trade: access to, 180; balance of (*see* Balance of trade); barter, 270, 301, 312, 323, 449, 525; specialization and exchange, 293; restriction (*see* Restrictions; Trade barriers); merchandise (*see* Merchandise)
- Trade, domestic: U. S., 221-222, 224-25, 263; vs. foreign, 261; business restrictions, 275; wartime, 515
- Trade, international: influences affecting it, 31, 98, 212, 266-76, 285, 293, 303, 367, 379-80, 501, 584, 587; transportation, 92-93; and production, 125, 269, 278-79, 287, 318; population effect, 138, 147, 155, 260-61; and area, 213, 260-61, 264, 279; volume of, 251-65, 296, 310, 317, 320, 322-23, 327, 383, 410, 466, 500, 510, 532, 654-56, 672; nationalistic policies, 252, 255, 290, 346, 374, 627; value of, 252-55, 258, 266, 277-78, 282, 318-19, 512; fluctuations, 252-55, 258, 277-78; quantum index, 253-55, 258, 266, 277-78, 352, 547-49; composition of, 255-58, 287, 302, 327, 410, 532; distribution of, 257-59; per capita, 260-61, 263; and incomes, 260-64, 267-69, 278-79, 290, 308, 318, 623; terms of, 269, 342, 352; past, 277-84; costs, 279, 294-96, 309-11; triangular, 281; bilateral, 281, 312, 374, 621; multilateral, 281-84, 312, 363, 374, 400, 522, 621, 625; decline of, 284-86, 317; postwar and future, 284-90, 546-49, 570, 616-27, 630-31; increase and expansion, 286-90, 533, 565, 602, 614, 626; theories of, 292-311; direction of, 296, 302, 309, 327, 410, 532; equilibrium theory, 299-302, 374; money and foreign exchange, 301-302, 310-11, 468-69, 474-79, 494, 506-507, 510, 561, 585, 591; government aid and control, 304, 312-27, 352, 360, 396, 553, 565, 626, 641; tying clauses, 310; free, 312, 314-15, 317, 329-30, 332, 339, 344, 350, 353, 375, 378, 496, 552, 566, 622; protections, 313-27, 352, 491; legislation, 324, 326-27, 341, 354, 356; dumping, 341-42; quantitative controls, 361-62; funds on, 365-66, 399
- Trade, interregional, 577
- Trade associations, 326, 432
- Trade barriers: effects, 181, 320, 339, 358, 371, 379, 393, 441, 564, 619, 636; for production, 183, 353; postwar, 311, 350, 552, 622-23; removal or reduction of, 312, 314, 340, 346, 350, 359-60, 372-73, 375-77, 591, 594, 641; costs, 350, 352; contiguous countries, 374; British, 375-77; prices, 551
- Trade and service items, 221-22, 225, 236, 238-39
- Traditions: on group action, 188-89, 539; for regional trade agreements, 370
- Traffic, demands of, 119, 432
- Transactions, international and gold, 245; private, 423
- Transportation: costs, 46, 57, 93, 180, 258-59, 295, 325-26, 368, 549, 639; raw materials, 76, 102, 180, 368; advance in, 79, 555-56; value, 92, 118-19, 147, 200, 212, 259, 386; air, 93, 628-29; U. S., 97, 221-22, 421-22; food, 107, 112, 613; railroad, 119; system unification, 377
- Transportation companies, 35
- Travel, passenger, 93, 221-22, 465, 555-56
- Treasury, government, 523 (*See also* U. S. Treasury Department)
- Treaties: commercial, 348, 355, 357, 363; peace, 357, 372; sovereignty limitations, 450, 580
- Treaty of 1911, 357
- Tree crops, 44
- Tripartite Agreement (1936), 514-15, 558, 581
- Tropical diseases (*see* Disease, tropical)
- Tropical regions, 43, 48, 79, 88, 282-83, 295
- Truman, Harry S., 563-64
- Trusts, 121, 272, 326, 329, 430-32, 437-38, 442
- Trypanosomiasis, 52-53
- Tsetse fly, 53
- Tuberculosis, 165
- Tungsten, 92, 264
- Tungsten carbide, 437
- Tunis, 256-57, 671
- Turkey, 495, 515, 527-28, 671-72
- Twentieth Report on Lend-Lease Operations, 563
- Twenty-Second Report to Congress on Lend-Lease Operations, 564
- Tying clauses, 310, 400, 594
- Uganda, 53
- Underinvestment, 531
- Undernourishment (*see* Malnutrition)
- Underpopulation, areas of, 48-54, 66, 136, 154, 187, 201
- Underwood Act (1914), 318
- Underwriting, security issues, 397-98, 425
- Underwriting agreement, 398
- Unemployment: worker, 35, 127, 171, 275, 308, 347-48, 496, 637; of factors of production, 347
- Unilateral action, 353-54, 356, 361, 363, 581, 589
- Union of South Africa: population, 16, 261, 671-72; resources, 76, 671; trade, 113, 261, 672; finances, 391, 657, 661 (*see also* South Africa)

- Unions, labor, 329, 477
- Unit costs, 295
- United Kingdom: population, 8, 12, 139-40, 152, 261, 345, 609, 663-68, 672; industry and production, 99-101, 130, 278-79, 311, 345, 576; standards of living, 111, 288, 617; food, 111-12, 178, 608-609, 669; income, 115, 149, 151-52, 156-57, 213-14, 216-18, 262, 284, 345, 575, 602; export-import trade, 128, 213-16, 233, 239, 243, 251, 256-57, 261-63, 278-79, 281, 283-84, 286, 288, 319, 355, 375, 391, 547-49, 626, 654, 672; balance of payments, 213-18, 222, 284, 288, 355, 617, 628; receipts and expenditures, 214, 216-18; foreign investments, 235, 384, 388-89, 391-92, 421, 547-48; net creditor-debtor position, 243, 388-89, 553-55, 565, 567, 571, 573, 575-76, 617, 642-43, 647-48; monetary standard and exchange, 483, 498, 528; prices, 501, 553; International Fund Bank, 582, 584, 587, 657, 661 (*see also* Great Britain; England; Wales; British Commonwealth)
- United Nations: general detail, 187-88, 532, 603-604, 643; organization, 309, 559-60, 629; Charter, 538, 558-59, 561, 580, 627; General Assembly, 538, 559-61; Economic and Social Council, 559-60, 580, 603; trade, 563, 616, 620, 626; war claims, 572-75, 647; International Bank and Fund, 582, 599; F A O, 610, 614
- United Nations Conference on Food and Agriculture (1943), 165, 558, 602-603, 609
- United Nations Relief and Rehabilitation Administration (UNRRA), 558, 565, 570, 591, 603-604, 606-609
- United States of America: population, 4-9, 11-17, 21-24, 49-50, 59, 63, 83, 85, 134, 137-39, 142, 152, 161, 188-89, 195, 261, 263, 663-65, 667-68, 671-72; migration, 23, 27-28, 30, 32, 38-40, 48-49, 177; industry and production, 44, 91, 99-103, 130-31, 152, 158, 177, 195, 198, 268, 278-79, 286-89, 293-94, 297-98, 307-309, 333, 336, 362, 412, 414, 421, 424, 563, 570-71, 597; standards of living, 44, 331; incomes, 49, 63, 85, 115, 134, 149, 151, 156-57, 162-64, 171, 193, 200, 202, 213, 222, 224, 227, 262, 264, 267-68, 286-87, 288, 553, 570-71, 584, 597-99, 602, 621, 634, 671; climate, 49, 84-85; agriculture and food, 55, 76, 80-81, 83, 85, 95-96, 108, 110-11, 115, 128-29, 143-44, 161, 169, 197, 264-65, 288-89, 294, 411, 435, 600, 671; gold activities, 76-77, 221, 227, 402, 420, 468-69, 486, 488-89, 512-13, 517, 529-30; natural resources, 91-92, 94, 261, 273-74, 289-90, 421; export-import trade, 111-13, 134, 221-27, 238-39, 245-47, 252, 256-59, 261-64, 267-68, 278, 280-84, 288-90, 297-98, 310, 315-16, 326, 333, 346, 357-58, 364-65, 375, 413, 415, 424, 435, 475-77, 500, 547-48, 563, 570-71, 596-98, 617, 623, 626-27, 655, 669, 672; raw materials, 125-27, 278, 357-58, 546; imports, 127, 221-27, 245-46, 364-65, 413, 415, 424, 442, 570-71, 596-98, 617, 623, 655; trade agreements, 128, 355, 357-58, 363-65, 371, 514-15, 622; size of, 134, 261, 263, 584, 599, 672; affairs and policies, 179-80, 330, 376-78, 557, 643; economic position and relations, 199, 209-10, 263, 288-89, 388, 411, 596-98; government controls, 211, 273-76, 326-27, 552, 589, 618, 634-35; currency, 212, 221, 223, 326, 453, 462-63, 472-76, 479, 481, 508-509, 514, 523; balance of payments, 220-28, 240, 245-47, 289, 465, 526; finance, 221, 365-66, 385, 399, 450, 499, 502, 579, 593-94; creditor-debtor position, 227-28, 386-88, 391, 407-408, 410, 413-17, 423-25, 568; investments, 235, 384, 386-88, 391-93, 410, 413-28, 528, 563, 568, 570-71, 597; crises, 244, 364, 401, 419-20, 503; tariffs, 273, 307, 317, 319-20, 340-41, 362, 376, 597, 635, 672; protectionism, 313, 315, 330-31, 344, 360, 364; price changes, 316, 520-21; self-sufficiency, 333, 360; gold standard, 401, 451-52, 454, 471, 483, 485, 504-505, 517-18; cartels, 431, 436, 440; gold stock and reserves, 460, 526-28, 533, 584; International Bank and Fund, 580-82, 584, 587, 657, 661; war debts (*see* Debts)
- U. S. Bureau of Home Economics, 156
- U. S. Bureau of Labor Statistics, 156
- U. S. Civil War, 316, 454, 456, 520
- U. S. Congress: activities, 97, 363, 538; trade agreements, 364; money, 451, 461, 463, 504-505, 513, 517; loans, 554, 563, 566, 604; International Bank and Fund, 589, 660
- U. S. Constitution, 451
- U. S. Department of Agriculture, 96
- U. S. Department of Commerce, 209, 213, 220, 226-27, 261, 385-86, 499
- U. S. Department of Internal Revenue, 210
- U. S. Department of Justice, 437
- U. S. Department of State, 364, 603
- U. S. Exchange Stabilization Fund, 513
- U. S. Federal Reserve Banks, 460, 476, 486
- U. S. Grain Corporation, 408
- U. S. Interstate Commerce Commission, 97
- U. S. Military Academy, West Point, 84
- U. S. Naval Academy, Annapolis, 84

- U. S. President, 363, 505-505, 554, 563-64
 U. S. Senate, 363
 U. S. Senate Military Affairs Committee, 437
 U. S. Steel Corporation, 38
 U. S. Supreme Court, 212
 U. S. Tariff Commission, 337
 U. S. Treasury Department, 221, 408, 423,
 512; Secretary of, 228, 505; receipts, 316;
 war claims, 564, 566, 578
 Universal Postal Union, 557
 Uranium, 104
 Urban areas, 32, 56, 63-64, 67, 137, 141, 204,
 260
 Uruguay, 483, 504, 657, 661, 671
 Utilities: creation of, 92, 402; diminishing,
 312
 Utilities, public, U. S., 421-22
- Values: noneconomic, 190-91; costs, 297, 299;
 demand, 298; laws and theories, 299, 302-
 303, 449, 461, 463, 519
 Vanadium, 133
 Variable proportion, law of, 395
 Veal, 306
 Veblen, Thorstein, 160, 332
 Vegetables, 80, 113, 134, 162, 272, 289, 306,
 607-608
 Vegetation, plant, 99, 117
 Vehicles, 133-34, 264, 289-90
 Venezuela: oil output, 91, 100-101, 103, 235,
 293; finances, 394, 483-84, 504, 657, 661
 Venison, 106
 Versailles, Treaty of, 354, 438
 Vienna, 64
 Visible items: definition, 213-14; U. S., 222,
 225; Europe, 230, 233-34; additional, 238-
 39, 251
 Vitamins, 106, 164, 613
- Wages: population, 35, 40, 61; iron law of
 (*see* Iron law); public control, 97, 276;
 various, 174, 211, 331-32, 442; system
 development, 270; levels of, 273, 301, 331-
 32, 334-35, 443, 559, 634; reduction of,
 275, 308, 508; costs, 299, 308, 334-35, 508;
 payment of, 328, 394, 634-35; employers,
 331, 334-35; U. S., 331-32; protectionism,
 332, 352; real, 332, 352, 443; money, 332-
 33, 443; inflexible, 477, 519 (*see also*
 Salaries)
- Wales: population, 7-9, 12-15, 17-19, 21,
 24, 139-40, 152, 194, 649, 663-65, 667-69,
 671; emigration, 31; agriculture, 110, 671;
 occupations, 147, 671; income, 152, 157,
 194, 671
- War: population shifts, 20, 36, 70, 192, 601;
 on equilibrium, 87, 113, 244; food, 112,
 114; blockade and contraband, 112, 354;
 dislocations and destruction (*see* Disloca-
 tions; Destruction); Far Eastern, 130;
 income, 158, 478, 541-42, 573, 635-37;
 trade discrimination, 180-81; national atti-
 tudes on, 197, 303, 378, 491, 528, 540, 576;
 finance and investment during, 221, 375,
 395, 420, 423, 426, 496; League of Nations
 form, 255; public controls increase, 311,
 328, 618; self-sufficiency during, 333-34;
 Japan, 364; production shifts, 411-12, 638;
 production resources for, 420, 628, 634-
 36; currencies, 457, 466, 477; prices, 478,
 489, 515, 525, 549-53 (*see also* World Wars
 I and II)
- War Debt Funding Agreements (1922), 562
 War of 1812, 330, 520
 Warehousing, 324, 613
 Water: supply of, 12-13, 42, 52, 89; soil ero-
 sion, 95-96; for power, 99, 102-104, 177;
 routes, 146
 Wealth: U. S., 414; general, 450, 540-41,
 595, 620; destruction, 502, 545
Wealth of Nations, *The*, Adam Smith, 294
 Weather: on population, 42-44, 47-48, 84;
 on crops, 78, 108, 112, 114, 134, 143-44,
 169, 193, 244, 600, 632
 Webb-Pomerene Act (1918), 326, 440
 Webster, Noah, 46, 78, 89
 Welfare: social optimum, 198-203, 328, 349;
 expenditures, 427; economic U. S., 563
- Wells, H. G., 90-91
 West Indies, 28, 281, 387, 425
 West Shore Railroad, 418
 Western countries, 25, 65, 356
 Western Hemisphere: population, 27, 56,
 121, 177; production, 130, 167, 608; in-
 come, 156; trade, 171; finances, 229, 408,
 426; gold, 402, 527 (*see also* parts listed
 separately)
- Westminster Shorter Catechism*, 191
 Wheat: Australian, 51, 92, 170, 632; prices,
 70, 95, 115, 170, 177, 461, 631-32; growers,
 70, 331, 624; production, 75, 143, 163,
 169-70, 197, 295, 297-98, 331, 444, 606,
 608, 611, 625, 632; climate, 78, 88, 95, 331;
 need for, 106-107, 230; trade, 111-113,
 244, 594-95, 632, 634, 669; Canadian, 143,
 332-33, 632; income and, 162-63; wheat-
 consuming countries, 631-32
- Whisky, 163, 199
 White, David, 101
 White, Harry D., 239-40
 White coal (*see* Water, power)
 White and Keynes plans, 580
 White race, climatic requirements of, 28, 48-
 49, 87-88, 97

- Wholesalers, 315-16
 Wilcox, Clair, 433
 Willcox, O. W., 62
 Willkie, Wendell, 557
 Wilson, Woodrow, 430
 Wind, 47, 76, 78-79, 95
 Wine, imported, 254, 294-95, 644
 Winter, 84
 Witwaters in the Rand, Transvaal Province, 524
 Women, 274, 328 (*see also* Females)
 Wood: products, 123, 125, 637, 670; pulp, 144, 295; trade, 234, 289
 Wool: production, 48, 120, 166, 177, 197, 234, 316, 335, 340; Australian, 51, 92, 98, 170, 177; growers, small, 125
 Work, 86-88, 199
 Workers: climate on, 84, 86-88; skilled, 148, 194, 267, 294, 332; incomes, 152, 328, 602, 610, 614, 620, 630; purchases and expenditures, 168, 236-37; standard of living, 174-75; productive power, 191, 198, 267; occupational shifts, 203-204, 287, 300, 636; agricultural (*see* Agriculture, population in); wage rates, 273, 331-32, 334-35, 443, 508, 559, 634; employment, 275, 308, 332; activity, 329, 347, 412, 574, 592; trade effect, 341, 411; interests of, 431, 442-43
 Working time, legislation on, 97-98, 199, 274
 World: interdependence of, 235, 285, 345-46, 370, 376-77, 379-80, 392, 480, 496, 557, 584, 601, 639, 643; co-operation (*see* Co-operation and collaboration)
 World Economic Conference, Geneva (1927), 142, 431
 World political organization: general details, 274, 340, 376-77, 486, 580, 610, 643; atomic energy, 309, 349; trade control, 346, 370, 379, 640; federal and functional approaches, 555-59, 629; first steps toward, 557, 559-79
 World trade (*see* Trade, international)
 World War I, 30, 102, 115, 186, 330, 345, 624; population effect, 31-32, 68, 70, 367; prices, 70, 95, 551; food, 107, 112, 114; production, 158, 288; finances, 212, 389-90, 409, 413-14, 427, 529, 617, 621; trade, 253, 333, 362, 372, 375, 424, 477; destruction and dislocation, 290, 500, 502, 542; postwar attitudes, 354, 539; peace treaties, 357, 372; reconstruction, 358, 544; German reparation claims, 394, 404, 562, 564, 570, 578, 593; U. S. and Allied co-operation, 407; monetary experiences after, 460, 473, 475-77, 480-97, 518, 521, 584; difficulties, 574, 576-77, 597
 World War II: population effect, 6, 37-38, 40-41, 161, 182, 252, 538; production, 100, 107, 178, 300, 345, 412, 635; food, 112, 114; finances, 228, 365-66, 386, 389-90, 529, 621; lend-lease, 228, 563-67; trade, 234, 243, 258, 288, 355, 372, 431, 558; Britain's position, 243, 288, 389-90, 529, 571; general, 277, 376; destruction and dislocations, 284, 290, 516, 542, 617; German preparedness, 334; currencies, 402, 477-78, 507, 515-16; debtor-creditor shifts, 420, 568, 577, 617; relief and rehabilitation, 603-606; reform after needed, 629 (*see also* Wars)
 Wright, Harold, 63
 Yellow fever, 52
 Yen, 466, 507
 Young Plan (1929), 407, 562, 568, 578, 593
 Yugoslavia: population, 13, 152, 204, 671; agriculture, 110, 143, 147, 204, 671; occupations, 147, 671; trade, 319, 372; International Fund and Bank, 657, 661
 Zinc, 91, 145, 647
 Zlotys, 466, 590
 Zollverein, The, 371

