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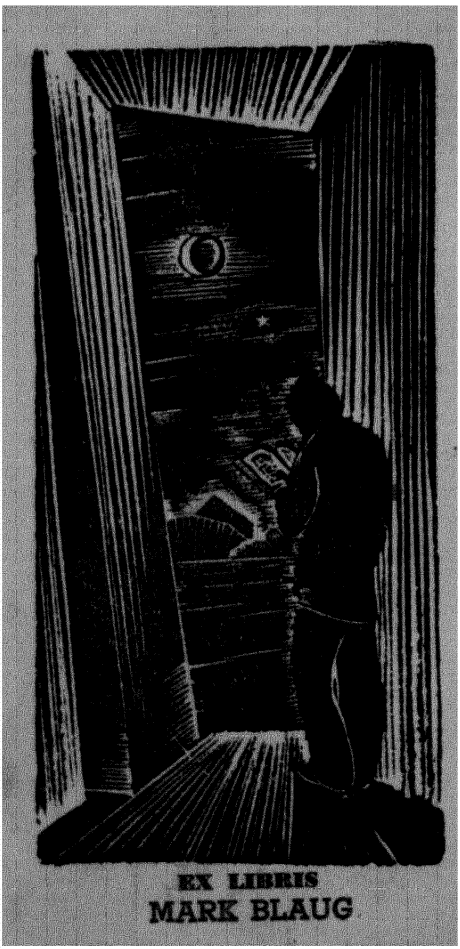
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WORLD ECONOMIC DEVELOPMENT

INTERNATIONAL LABOUR OFFICE

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EFFECTS ON ADVANCED INDUSTRIAL COUNTRIES

by

Eugene STALEY

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PREFACE

This volume appears on the eve of the Twenty-sixth Session of the International Labour Conference, at which particular attention is to be given to the social objectives of economic policy, and especially to the measures that will have to be taken, nationally and internationally, to ensure full employment, social security and rising standards of living. It is evident that development of industry in countries which have not hitherto been industrial will be actively sought and will be a most important feature of the economic situation in the near future. That development must necessarily affect world economic policy to a great extent and its social repercussions, in old as well as new industrial countries, obviously call for close study. The International Labour Office therefore feels that it is timely to publish this survey of the subject by so eminent an authority as Professor Eugene Staley.

The work was put into galley proofs several months ago and was circulated by the author to a number of persons who had an interest in, and expert knowledge of, its subject matter. Valuable criticisms and suggestions on all or portions of the text rendered it possible to undertake a rather extensive revision. The author desires to express his thanks particularly to Mr. Louis Bean, Dr. Percy W. Bidwell, Dr. Gerhardt Colm, Professor Allan G. B. Fisher, Dr. H. D. Fong, Mr. Hal Lary, Mr. August Maffry, Mr. William K. Miller, Professor R. J. Saulnier, Mr. Theodore Sumberg, Mrs. Maxine Sweezy, and Professor Jacob Viner. None of these friendly critics, of course, takes responsibility for any of the conclusions drawn by the author.

The International Economics and Statistics Unit of the United States Bureau of Foreign and Domestic Commerce (Dr. Amos Taylor, Director) rendered invaluable assistance in the preparation of much of the statistical and chart material, particularly for Chapter VIII. The interest manifested and the care taken by the staff of the Bureau made possible a better and earlier graphic presentation than could otherwise have been achieved.

The Rockefeller Foundation gave generous financial support several years ago to a research programme on "The Economics of Transition and Adaptation" at the Fletcher School of Law and

Diplomacy. The original plan of this study and the development of part of its basic ideas and materials date from this programme, but the present monograph was prepared specially for, and in collaboration with, the International Labour Office.

It should be added that the final proofs were not seen by the author, owing to his absence on an important mission to China.

The International Labour Office.

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I. THE PROBLEM

Article V of the Atlantic Charter announces as a policy of the United Nations "the fullest collaboration" in the economic field "with the object of securing for all, improved labour standards, economic advancement and social security". Article VI looks forward to a world where "all the men in all the lands may live out their lives in freedom from fear and want". The Conference of the International Labour Organisation held at New York in November 1941 specifically endorsed both these articles in a resolution which also proclaimed once more the principle set forth in the I. L. O. Constitution, namely, that a lasting peace "can be established only if it is based on social justice". Furthermore, the Conference resolved that the close of the war must be followed by immediate action, previously planned and arranged,

> for the feeding of peoples in need, for the reconstruction of the devastated countries, for the provision and transportation of raw materials and capital equipment necessary for the restoration of economic activity, for the reopening of trade outlets, for the resettlement of workers and their families under circumstances in which they can work in freedom and security and hope, for the changing over of industry to the needs of peace, for the maintenance of employment and for the raising of standards of living throughout the world.

In the network of Mutual Aid Agreements between the United States and Governments receiving lend-lease aid the signatories have pledged themselves to "agreed action . . . 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 peoples". Many other official and semi-official pronouncements of United Nations leaders could be cited in which the same hope is held out to the common people of the world: expansion of production and consumption, higher and more secure standards of living and of labour, "freedom from want".

Production and Freedom from Want

There is basically only one way in which "all the men in all the lands" can approach freedom from want, namely, through vastly increased production. It cannot be too often repeated that improvement in living standards depends fundamentally on improvement in the capacity of a people to produce. No programme of charity can abolish want. Immediately after the war, and during the war as occupied areas are liberated, the more fortunate of the United Nations will, of course, assist the people suffering from hunger and destitution by helping them with foods and medicines and the means of restarting production. But this can be no more than a palliative. The real, fundamental, permanent attack on want is through measures to multiply the efficiency of labour.

To some people, accustomed to think of the wealthier economies, it may seem that steadier use of existing productive capacity and more even distribution of its fruits would yield fairly satisfactory living standards. Yet when one looks at the unfilled material wants of the vast majority of the world's people it is quickly apparent that nothing but a radical advance in their *capacity to produce* will bring them within hailing distance of any modern conception of freedom from want. Even in the advanced countries, comparisons of actual consumption of large numbers of people in the lower income groups with goals of material well-being that seem modest enough to modern men reveal plenty of need for greater production if freedom from want is to be attained.

Of course, freedom from want is a very elastic goal. As peoples' standards of living rise they discover new wants. But the minimum definition of freedom from want, under modern conditions, would include these great essentials: enough food of the right kinds to maintain vigorous health, adequate clothing for comfort and cleanliness, houses safe and pleasant to live in, health care, and at least elementary education for all. There is still a long road to freedom from want, even on this minimum definition, for most of the people of the world. Production will have to be increased enormously in order to achieve it. If one were to go further and suppose that "all the men in all the lands" will some day be able to afford (that is, to produce) a standard of living that would be judged superior in our times—including, let us say, such new devices as radios, telephones, and automobiles to the same extent as the people of the United States use them today—the expansion in production of these and related goods and the host of raw material industries and technical services which feed into them would need to be fantastic.

Food. It is estimated that 60 per cent. of the world's gainfully occupied people are normally engaged in the production of food.

Yet the Mixed Committee on Nutrition of the League of Nations concluded in 1937 that about three quarters of the more than one thousand million inhabitants of Asia have a diet far below the standard for health, while even in the United States and western Europe much malnutrition exists among the lower income groups, extending to 20 or 30 per cent. of the entire population. The United Nations Conference on Food and Agriculture declared in 1943 that "there has never been enough food in the world for the people of the world to eat. To provide the food needs of mankind will require a vast increase in food production in every land."[1]

Clothing. If all people used as much cotton per person for wearing apparel and household furnishing as was used before the war in the United States of America, the cotton consumption of the world would be three times its highest point in the past[2], and textile output would have to be increased in proportion.

Shelter. Even the countries with the highest average living standards are discussing the need for great programmes of housing and rebuilding of slum areas after the war. The dwellings of most of the world's people certainly fall short of even low standards that might be set with regard to health, not to mention comfort and convenience.

Health Care. Soap is an elementary essential of sanitation. For the rest of the world to have one half as much per person as the average American, world production would have to be more than doubled.[3] Hospital beds are a rough index of the availability of modern medical science, including physicians, laboratories, vaccines, and other medicines. In the United States there were 10.7 hospital beds per 1000 persons before the war, and many rural areas were considered to be inadequately provided. But no Latin American country has one half as many in proportion to population, and experts are of the opinion that one hospital bed per 5000 persons would represent a significant achievement in the next stage of advance for such countries as China.[4]

Education. An enormous new investment would be required in equipment and in the training of personnel to make elementary

[1] UNITED NATIONS CONFERENCE ON FOOD AND AGRICULTURE, Hot Springs: *Final Act and Section Reports* (Washington, U. S. Government Printing Office, 1943), p. 36.

[2] *Memorandum on Consumption Levels and Requirements for Other Needed Agricultural Products* (submitted by the Delegation of the United States to the United Nations Conference on Food and Agriculture, Section 1 B, Hot Springs, Va., 18 May 1943).

[3] *Ibid.*

[4] A study prepared in the United States for the National Planning Association by George SOULE and associates, tentatively entitled *Latin America and Freedom from Want*, to be published in 1944 by Farrar and Rinehart; information supplied orally by a public health specialist.

education everywhere available and to provide the vocational training and advanced technical training necessary to make a modern economic system productive.

What about the new types of goods that no-one had a few decades ago? It would take some 600 million radios to bring the rest of the world up to the American consumption level. The number turned out by United States factories in 1940 was 11.5 million. For all the world to have as many telephones in proportion to population as the United States, which had 23.5 million at the beginning of 1942, would require nearly 350 million new instruments, with the vast amount of central station equipment and service organisation necessary to make them work. There were 32.6 million automobiles in use in the United States in 1941. For the rest of the world to have as many in proportion to population would have required 450 million additional vehicles, beyond the 45 million then in use outside the United States. At the highest annual production rate ever attained by the great American automobile industry in the past, it would take it more than seventy-five years to turn out that number of cars, and the need for production of rubber, metals, and service equipment would be staggering to the imagination. Highways (not to mention railways, waterways, and airlines) are fundamental in making possible a modern type of efficient production. The United States has three million miles of roads, one mile for each square mile of area. Sparsely populated Canada, with a 20 per cent. greater area including vast uninhabited frozen spaces and forest lands, has one mile of road for each 7.6 square miles of territory. For the entire world to have a network equal, not to that of the United States, but to the average for the United States and Canada combined, some 17.5 million miles of new road construction would be necessary.[1]

These calculations are not attempts to say what people ought to want, nor are they predictions of what they will attain in any near future. They are simply designed to show that for the attainment of a minimum level of "freedom from want" and still more for the satisfaction of some of the newer wants that arise where

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[1] Rough calculations based on data from the following sources:

Radio: *Radio and Television Retailing* (Apr. 1941); U.S. DEPARTMENT OF COMMERCE: *Radio Today* (Jan. 1939).

Telephones: AMERICAN TELEPHONE AND TELEGRAPH COMPANY: *Telephone Statistics of the World* (1 Apr. 1942).

Automobiles: Automobile Manufacturers' Association, Detroit, and U.S. Department of Commerce.

Road mileage and areas: C. P. ROOT: *Highways of the World: Annual Statistical Survey of World Highways* (U.S. Bureau of Foreign and Domestic Commerce, Department of Commerce, Industrial Reference Service, No. 35, June 1941).

World population: LEAGUE OF NATIONS: *Statistical Year-Book, 1941-42.*

superior living standards are attainable, the level of production throughout the world would have to be raised enormously.

Economic Development

What is economic development? It is a combination of methods by which the capacity of a people to produce (and hence to consume) may be increased. It means introduction of better techniques; installing more and better capital equipment; raising the general level of education and the particular skills of labour and management; and expanding internal and external commerce in a manner to take better advantage of opportunities for specialisation.

Economic development is a broader term than "industrialisation"—if the latter is understood, as is generally the case, to stress the increase of manufacturing and other "secondary" production as compared with agriculture and other "primary" production. The greatest opportunities for raising productivity and income in many less developed areas will lie in modernisation of their agriculture, their forestry, their fisheries, etc., and not, at least at first, in the increase of manufacturing. Efficiency of production, adapted to the particular resources and circumstances of the country and to its best opportunities for specialisation in trade with the rest of the world, not mere imitation of the types of production that have expanded most dramatically in other countries, is the key to economic advancement.

A certain amount of "industrialisation", however, will practically always accompany substantial economic development, even in countries that, like Denmark and New Zealand, find much of the basis for their high living standards in intelligent agricultural specialisation. Increasing efficiency in agriculture, which is one of the strategic points for attack in the economic development of less developed countries, enables a smaller percentage of the occupied population to supply more food. Productive power is then available for non-agricultural pursuits. Also, as a community gets more income per family it spends a smaller proportion of its total income on food and a larger proportion on an increasing variety of other goods and services. It is a statistical fact that for every great region of the earth income levels are higher where the proportions of the working population engaged in agriculture are lower.[1]

[1] Louis H. Bean: *Industrialisation, the Universal Need for Occupational Adjustment out of Agriculture*, an unpublished manuscript made available by the author. Mr. Bean writes that China, India, many sections of Latin America, Africa, eastern Europe, and south-eastern United States are obviously over-agriculturalised, with 60 to 85 per cent. of their populations devoted to producing food and other farm products. On the basis of statistical comparisons with other areas, he concludes that the low per capita incomes of China and India could be doubled

(*Footnote continued overleaf*)

For the less developed countries as a whole, therefore, and for individual countries of large size and diversified resources, economic development will require and will bring about a considerable amount of industrialisation, in the sense of growth of "secondary" production. As incomes rise, an increasing proportion of workers will also be engaged in retail and wholesale trade, transportation and communication, administration, medical, educational and other professional services—that is, in so-called "tertiary" production, which is produced and consumed in much larger proportions in the wealthier than in the poorer communities.[1]

In the early stages of economic development industrialisation is likely to manifest itself in: (1) increased processing of local raw materials, including processing for export (*e.g.*, meat packing, canning, first stages in refining of minerals); (2) manufacture of simpler consumption goods (especially textiles and foodstuffs, but also furniture, soap, etc.); (3) assembly of products using imported parts (*e.g.*, automobiles and aircraft); (4) utilities and their maintenance (power plants, railway repair shops, etc.). In later stages the heavy, capital goods industries (metallurgical, metal working, machine tools, etc.), take on increased importance. This is the usual sequence, and the one likely to be easiest and also most immediately effective in raising living standards. The Soviet Union, however, has demonstrated that, at least under some circumstances, the heavy, capital goods industries can be pushed ahead of light industry, although this postpones the rise in living standards.

Development Programmes throughout the World

Throughout the world, programmes of post-war economic development, many of them very ambitious, some of them tremendous in scope, are being discussed.[2]

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if, with more efficient use of human and natural resources, only 15 per cent. of their working populations were shifted from food production to other pursuits and that additional shifts of less than 10 per cent. would treble income.

> For the world as a whole, . . . there are about 800 million people classed as gainfully occupied and probably 60 per cent. of these (or about 500 million) are engaged in agriculture. If in the course of a reasonable period—say the first decade after the war—through appropriate regional development programmes, it were possible to alter the world's agricultural-industrial balance, so that 40 per cent. (instead of over 60 per cent.) were engaged in farming, the general gain in productivity and income and living standards would be enormous. . . From the standpoint of the number of working people involved in this broad objective of occupational adjustment, the bulk of reductions would be found in China (about 70 million), India (about 27 million), U.S.S.R. (about 13 million), Poland (about 2 million), Japan (about 2 million), and Latin America (about 2 million).

[1] Colin Clark: *Conditions of Economic Progress* (London, Macmillan, 1940), Chapter V.

[2] Cf. Lewis L. Lorwin: *Postwar Plans of the United Nations* (New York, Twentieth Century Fund, 1943), *passim*.

In China, development programmes today start with the vision of Dr. Sun Yat-sen, founder of the Chinese Republic. Shortly after the First World War he published a book in which he outlined a comprehensive scheme for installing modern transportation and communication and for developing industries and agriculture.[1] He proposed 100,000 miles of railway, one million miles of hard surfaced highway, improvement of existing canals and construction of new canals, regulation of rivers, construction of telegraph and telephone lines and radio stations, the development of three great ocean ports and various smaller harbours and docks, construction of public utilities and building of modern cities at all transportation centres, water power development, iron and steel works and cement works on a large scale in order to provide construction materials, mineral and agricultural development, great irrigation works, reafforestation in central and northern China, and colonisation in outlying regions.

Both official and unofficial groups have been at work in China during this war endeavouring to lay specific plans and to translate into technical data the materials and equipment and trained manpower needed for China's development over five, ten, twenty years and longer. More immediate proposals are being drawn up for the years following the war. One subject of controversy is the relative stress to be put on light industry and heavy industry. From the point of view of civilian economy and living standards light industry should come first, together with reform of agriculture. Military security, however, is more directly related to heavy industry. The decision on whether to bear the economic cost of heavy industry is likely to depend in large part on the nature of the peace.[2]

Some of the long-range goals which have been put forward by Chinese planners, for achievement over twenty years or more, include Dr. Sun's 100,000 miles of railway, half to be double-tracked, needing a total of 20 million tons of steel, 25,000 locomotives, 300,000 freight cars, and 30,000 passenger cars; half a million new automobiles a year for ten years, in order to achieve a total of three million at any given time; one million miles of highway; power plants capable of producing 20 million kilowatts; telephones

[1] *The International Development of China*, originally published in 1922. Second edition, with a Preface by Sun Fo, published in 1929. The book was reissued in 1943 by the Ministry of Information of the Republic of China, reprinted from the second edition.

[2] Theodore H. WHITE, Chungking correspondent for *Time-Life-Fortune:* "China's Postwar Plans", in *Fortune*, Oct. 1943. For a discussion of China's resources, the directions that development might take, and problems connected with it, see H. D. FONG: *The Post-War Industrialisation of China* (National Planning Association, June 1942).

to the number of 80,000,000; one million new homes a year; modern furniture and sanitation industries; 320,000 cotton looms; 16,000 woollen looms; 94,000 silk looms; and, eventually, 10,000,000 tons of ocean-going shipping.[1]

Leaders of thought among the peoples of eastern and south-eastern Europe stress the need for systematic economic development. The low standards of living in the area are based on an inefficient peasant agriculture. Competent students agree that, for its present methods of production, the area is heavily over-populated. Persons engaged in agriculture actually work only a part of the year and yields are low. It has been estimated that about 25 per cent. of the agrarian population is either totally or partially unemployed—"disguised unemployment"—and industrial diversification is suggested as the way to make use of this excess labour.[2]

The area needs better transport, including railways and a network of local roads, better communications, power developments, and investment of capital in industries which would absorb some of the people whose capacity cannot be fully employed in agriculture. Suggestions have often been advanced to the effect that a comprehensive regional programme like that of the Tennessee Valley Authority is needed in this area—improvement of agricultural techniques, combined with pioneering work for the establishment of suitable industries.[3]

There is a great need and considerable desire throughout Latin America for programmes of economic improvement to raise living standards.[4] In seven Latin American countries national development corporations have come into existence since 1939. They have been engaged in wartime measures of stabilisation and in mobilisation of strategic resources, in co-operation with the Government of the United States, which has made credits available through the Export-Import Bank. Their work is also directed, however, towards the long-range expansion of production and is likely to continue after the war. Most of the other countries of Latin America are carrying on similar work under different forms of organisation. An Inter-American Development Commission was established in 1940 by the Inter-American Financial and Economic Advisory Committee (composed of representatives of the twenty-one American republics), and national commissions have been set up in

[1] Theodore H. WHITE, *op. cit.*

[2] P. N. ROSENSTEIN-RODAN: "Problems of Industrialisation of Eastern and Southeastern Europe", in *Economic Journal*, June-Sept. 1943, pp. 202-11.

[3] See, for example, Leon BARANSKI: *East and Central Europe* (published by New Europe, New York, 1943).

[4] See the detailed survey of the problem in the forthcoming study, *Latin America and Freedom from Want*, referred to in footnote 4 on p. 3.

each country to provide liaison with leaders in financial, industrial, engineering, and government circles.

Chile's prospects for economic development, which have recently been the subject of a competent first-hand appraisal[1], are indicative to some extent of those in other countries of Latin America. Extreme advocates of industrialisation have argued that the way to increase the country's production is to stimulate manufactures almost to the point of self-sufficiency. One Chilean industrialist and engineer wrote that "Whatever production replaces an import is and always will represent an increase in the national wealth, independently of its apparent cost in money value". Careful examination, however, leads to rejection of this view. A much more promising course for Chile would be a mixed development in which increased productivity in agriculture, now the chief industry, would play a prominent part.

Chile possesses more arable land, and more per capita, than California, Sweden, Switzerland, or New Zealand. It has good soil and climatic conditions. Yet, as a Chilean writer has pointed out, its per capita production of all agricultural commodities is less than half that of Sweden and Switzerland, one third that of California, and less than one seventh that of New Zealand. "Chile's agriculture, perhaps even more than her industry, offers great possibilities of development through modernisation. The chief obstacle appears to be the influence of the easy-going tradition of the *hacienda* . . . "[2]

With the aid of modern fishing boats, cold storage plants, and refrigerated cars, Chile could draw on its fishing resources to effect a great improvement in the diet of its people. At present fish is not regularly available even in Santiago and is as costly as meat, although there are rich fishing waters off the long Chilean coast. The country could possibly become one of the world's leading exporters of fresh, frozen, and canned fish; and it could perhaps export other types of canned and dehydrated food. Other promising lines of development include: exploitation of water power resources; possibly a small steel industry utilising cheap sea transport and cheap power; expansion of the small-scale copper fabricating industry that already exists; certain chemical industries based upon nitrates and other salts present in Chile; production of lumber for domestic use and for export, and for manufacture of paper, plywood, and rayon pulp. Better transportation and communication, adequate housing facilities, and improved conditions of public health

[1] Chapter VII, "Prospects for Economic Development", in *Chile: An Economy in Transition*, by P. T. ELLSWORTH, to be published in 1944 by Macmillan. Manuscript kindly made available by the author.

[2] *Ibid.*

are needed to integrate and to supplement industrial and agricultural progress.[1]

The Choice before the Industrially Advanced Countries

There are solid reasons of a social and political character which impel the peoples and governments of the advanced industrial countries to look sympathetically on the efforts of their less well equipped and less productive neighbours to achieve higher living standards through economic development.

There is the humanitarian wish to see people who suffer from chronic poverty acquire the material basis for better living. Furthermore, prominent spokesmen of the leading United Nations have pledged economic co-operation after the war to raise living standards for all people, not just for the more fortunate few. True, the pledges have been in general terms and have been expressed more often as hopes and aims than as legal commitments. But the reputation for reliability of the nations from which these pledges have come is to some extent at stake.

The industrially advanced countries have a great stake in future prospects for a more peaceful and orderly world. Poverty-stricken areas in an age when poverty is no longer necessary and in a world where some have great wealth may become festering trouble spots. Poverty-stricken areas lack the means of defending themselves and, by their weakness, invite conquest. It is generally recognised that there can be no really secure basis for a durable peace unless the peoples of the world are able to co-operate in some effective political organisation. Gross disparities in living standards do not make such co-operation easier, nor does the lack of educational opportunity which goes with low productivity. On a planet where aviation will soon have brought every place within less than forty-eight hours of every other place and where opposite sides of the globe are fractions of a second apart by radio communication, the advanced countries can no longer trust to the insulation of distance to protect themselves against the consequences of political discontent and disorder in other regions.

The same reasoning applies to physical disease as to political disorder. Planes will fly daily between the most out-of-the-way places, which may be incubation centres for epidemics, and the more fortunate lands, where pestilences are rare and immunities high. Can the advanced countries afford to leave great patches of the earth under conditions of poverty and malnutrition which breed disease?

[1] Chapter VII, "Prospects for Economic Development", in *Chile: An Economy in Transition*, by P. T. Ellsworth, to be published in 1944 by Macmillan.

If living standards remain low in other areas, there may be increasingly bitter complaints and increasing pressure against the immigration barriers of the more advanced and wealthy countries. The great constructive alternative to mass migration out of low-standard areas is a rapid flow of capital, modern equipment, and technology into those areas—in other words, economic development.

Finally, the advanced industrial countries will no doubt realise that they cannot prevent the modernisation of many of the less developed areas of the world, although obstruction or indifference on their part would delay the process. The Soviet Union has proved that a relatively "backward" economy, given sufficiently determined leadership, can modernise itself with little help from outside or even in the face of outside opposition. Capital can be accumulated internally by holding living standards down, even pushing them further down, while a large fraction of production is turned into new equipment. The process is a painful one. In countries which start from a low standard of living it can be carried through only at the cost of great misery, and probably only under a political dictatorship capable of restraining consumption drastically in order to accumulate capital. Also, other less developed countries lack the great size and variety of resources which helped make the achievement of the Soviet Union possible. Nevertheless, the leaders of at least some of the less developed countries are likely to urge that no sacrifice is too great in order to establish modern industry. For modern industry provides not merely higher living standards; it also provides the tools of modern warfare. This is a point which China, for example, after suffering so sadly from lack of equipment in its years of struggle against the invader, is unlikely to forget.

The process of modernising the production methods of the less developed countries will probably be pushed ahead regardless of the attitudes of the countries that hold industrial leadership today. Indeed, indifference or obstruction on the part of some of them would probably not be reflected in the policies of all; some help is likely to be forthcoming, in any case, to the countries undergoing modernisation. What the industrially advanced countries can influence by their attitudes is the degree and rapidity of economic progress, its timing, and to some extent, the direction that development takes. The real choice before them, therefore, is not "Shall there be economic development elsewhere or shall there not?" The choice is between positive co-operation in that development or indifference and antagonism towards it.

Economic Repercussions of Development Abroad: Hopes and Fears

It has been said above that there will be an insistent demand in many parts of the world for rapid progress in economic development after the war. Also, for social and political reasons, some of which have been suggested, the people of the industrially advanced countries will probably be inclined to encourage the process of development and to co-operate in speeding it. But what of the economic impact on them?

That is the question which it is the purpose of this study to explore. What are the effects—primarily the economic effects—which are likely to be felt in the advanced industrial countries of the world as a result of economic development elsewhere? Will the provision of capital, equipment, and technical and educational aid designed to increase production in the less developed areas of the world raise or lower the prosperity of the supplying countries? Will the introduction of modern methods into places where production has hitherto been carried on by more primitive means result in gain or loss to peoples that now have well established modern industries? Whatever may be the benefits that improved labour efficiency and higher living standards bring to the countries where economic development takes place, will other countries suffer from loss of markets and from new competition? Or will they find themselves enjoying new opportunities and higher real income as a result of the increased purchasing power of their customers and the more efficient production of the things they buy abroad? What may be the effects of economic development abroad upon employment, trade, business opportunities, and living standards?

The attitudes in the advanced industrial countries on these points express a mixture of hope and fear.

Some persons stress the hopeful side. They see in the growing prosperity of other countries the promise of expanding markets based on permanently increased purchasing power and higher living standards. They also make the point that the expansionary effects of investment for economic development throughout the world, together with domestic investment-fostering policy, will help to achieve peacetime full employment and high prosperity and will make the post-war problems of economic adjustment easier for the industrially advanced countries.

Dr. Sun Yat-sen gave vigorous and concrete expression to this view after the First World War in his book *The International Development of China*, referred to above. He was prompted to write the book, said Dr. Sun, "by the desire to contribute my humble part in the realisation of world peace". President Wilson had

proposed a League of Nations to end military war. "I desire to propose to end the trade war by co-operation and mutual help in the development of China. This will root out probably the greatest cause of future wars." Dr. Sun pointed to the problem that would be created by the sudden collapse of the "war market" for billions of dollars, worth of munitions and supplies. Reconstruction, and the resumption of accustomed civilian demands for comforts and luxuries, would absorb some of the productive power so released. But at the same time improvements in technology and better economic organisation, amounting together to a "second industrial revolution" would increase the productive power of man many times over. "Where in this world can Europe and America look for a market to consume this enormous saving from the war? If the billions of dollars' worth of war industries can find no place in the *post-bellum* readjustment, then they will be a pure economic waste. The result will not only disturb the economic condition of the producing countries, but will also be a great loss to the world at large." China, continued Dr. Sun, if developed according to his programme, would require machinery in vast quantities for its agriculture, its mines, for the building of factories and for extensive transportation systems and public utilities. "The workshops that turn out cannon can easily be made to turn out steam rollers for the construction of roads in China. The workshops that turn out tanks can be made to turn out trucks for the transportation of the raw materials that are lying everywhere in China. And all sorts of warring machinery can be converted into peaceful tools for the general development of China's latent wealth."

The Chinese people, he said, will welcome this development, provided it can be so organised as to "ensure the mutual benefit of China and of the other countries co-operating with us". Some people in Europe and America might fear that the use of war machinery, war organisation and foreign technical experts to develop the latent human and material resources of China would create competition unfavourable to their industry. "I therefore propose a scheme", wrote Dr. Sun, "to develop a new market in China big enough both for her own products and for products from foreign countries."

Other persons take a pessimistic view of the effects upon advanced countries of economic development abroad or look upon it with fear, especially when it involves, as it often will, a substantial measure of industrialisation. They stress the new competition likely to come from improvements in the productive efficiency of other peoples. They argue that business men in the advanced countries will find their markets shrinking as former customers

learn how to make imported goods for themselves. Cheap labour in low-standard areas, once it is equipped with modern machines, may turn out goods at such low cost that the higher-paid labour of the advanced countries will be unable to compete. They fear that the result will be loss of jobs and undermining of living standards. Capital and "know how", according to this view, had better stay at home to give employment to home labour and opportunities to home business firms, instead of going abroad to provide jobs for foreign workers and to build up foreign competitors.

In January 1942, *Harper's Magazine* published an article under the title "A Warning to the Peace-Planners: America's New Industrial Rivals".[1] It expounded the thesis that "outlets for manufactures" are being cut down over the world as one customer after another learns to make at home the goods that were previously imported.

> . . . a little bit shaved off in Cuba and a little bit shaved off in Ceylon is going to be, when added up, a whole lot shaved off the world demand. . . Whose steel trade, whose textile trade, will India cut into after the war? . . . Australia will be a hard competitor in post-war markets. . . Don't overlook New Zealand either. . . There is also Japan. . .
>
> If Asiatic industrialism fails to make organic connection with the "crowds of Asia" then it may be expected, first, to push the overseas suppliers hard in the markets of the fringe; and, second, to enter into competition with the older industrial countries in every price market of the world. These will be "unhealthy" results for America and Europe.
>
> As industrialism invades one country after another the basis of trading relations shifts. Failure to realise that this is true, or blind resistance to its implications, brought depressed areas to England between the wars. Failure to keep it in mind in the future will bring more and better depressed areas, not only in England, but also in other highly industrialised exporting countries. If every country turns to making as many things as possible at home, obviously those who formerly sold them these things must find some other way of disposing of them, preferably also at home, or get out of the business of making them altogether.

The same debate has been carried on in every country which, being relatively advanced in industrial techniques and prosperous for its time, has seen other countries adopting its methods or improving their own. Adam Smith wrote sarcastically of the eighteenth century mercantilist laws which restrained the export of machinery and tools and prohibited artificers from going abroad to practise or teach their trade: "The laudable motive of all these regulations is to extend our own manufactures, not by their own improvement, but by the depression of those of all our neighbours . . ."[2] In all countries which have been great suppliers

[1] C. Hartley GRATTAN in *Harper's Magazine*, Jan. 1942, pp. 126-133.
[2] Adam SMITH: *The Wealth of Nations*, Book IV, Chapter VIII.

of investment funds for development abroad serious misgivings have been expressed lest this "drain of capital"—in the tendentious phrase often used—impair the economic prosperity of the country and build up competitors.[1]

The Argument Today

Today there is much public interest in the advanced countries on the subject of the policies they should pursue towards post-war economic programmes of less developed countries, and the time-honoured divisions of opinion are finding their spokesmen. It may be useful to illustrate the course of the discussion in one country. The United States is chosen because its great capacity to supply capital, technical knowledge and equipment, together with its general position in world economics and politics, will make it particularly influential in advancing or retarding the pace of economic development in other regions.

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[1] Jacob Viner: "Political Aspects of International Finance" in *Journal of Business of the University of Chicago*, Vol. I, Apr. 1928, p. 144. Mr. Viner cites the following instances, among others:

In 1813 Sir Henry Parnell explained a report of a British Parliamentary committee hostile to the export of capital as "influenced by no other motives than . . . the impolicy of sending our money to improve other countries while we have so much of our own lands that stand in need of the same kind of improvement". (Report from Select Committee on Corn Trade, 1812-13, *Hansard*, 1st series, Vol. XXV, Appendix.)

Palmerston, asserting in 1848 the right of the British Government to intervene to force debtor governments to meet the just claims of British creditors, explained that the Government had hitherto not exercised that right because "It has hitherto been thought by the successive Governments of Great Britain undesirable that British subjects should invest their capital in loans to foreign governments instead of employing it in profitable undertakings at home . . . " (Hall: *International Law*, 4th ed., Oxford, 1895, p. 205.)

In France there was opposition to the export of capital in the late nineteenth century and it became particularly vehement in the years immediately preceding the outbreak of the First World War. Statesmen, publicists and manufacturers argued that the great outward flow of French savings was a transfer to foreign industry of financial resources which were needed for the development of home industries. In Germany before the First World War the opposition to the export of capital on a great scale was especially vigorous on the part of the agrarians, who, as a debtor class, objected to anything which would raise interest rates at home. In America during the 1920's there were signs of similar concern as increasing amounts of capital went abroad. For example, Secretary of Labor Davis advocated that the sending of "American money abroad to develop foreign industries" be stopped in order to maintain American prosperity and to check unemployment. (*New York Times*, 17 Feb. 1928.)

Even economists with strong free-trade convictions have sometimes questioned the wisdom of large-scale investment abroad. Thus, Ricardo wrote early in the nineteenth century that he would be sorry to see weakened "those feelings which . . . induce most men of property to be satisfied with a low rate of profit in their own country, rather than seek a more advantageous employment for their wealth in foreign nations". (*The Principles of Political Economy and Taxation*, Everyman edition, p. 83.) Other economists answered, however, that if the exported capital is invested in productive enterprises abroad it serves to develop export markets, promotes the production of cheaper raw materials, foodstuffs or manufactures which can be purchased advantageously by the capital-exporting country and may open up territory for settlement. (For example, John Stuart Mill: *Principles of Political Economy*, Ashley edition, p. 739.)

President Roosevelt has expressed his views on this topic more than once. In an informal discussion at his press conference on 24 November 1942 he alluded to the establishment of a United States office to aid foreign relief and rehabilitation and to the fact that there were then in Washington certain official visitors from South American countries which were being assisted in developmental projects by United States loans. According to newspaper reports:

> There would be rehabilitation abroad, Mr. Roosevelt declared, not only for humanitarian reasons but from the standpoint of America's own interest, for it would mean in the final analysis better purchasing power abroad for American products. It will mean safety in the future from attack and from war and it will encourage the development of democracy, he added.
>
> The President recalled, in setting forth his views, that twenty years ago the South, particularly the rural areas, was so impoverished that there was a lack of buying power. Under the New Deal, he declared, this had changed, and the increased buying power gained, especially through agricultural rehabilitation, had led to the purchase of Northern goods. That in turn, he said, had provided more labour and so more wealth for the North.
>
> Yet, he added, when the programme was undertaken there was much criticism of it in the North.
>
> The same thing that was done for the South, he stressed, could be done for nations; and it would help them and us, he contended.[1]

Carrying his illustrations further, President Roosevelt recalled that in 1933 hardly any stores in rural Georgia were solvent, to say nothing of the banks. There were no Saturday afternoon customers.

> The prospective buyer of a hat would be shown an eight-year-old model, because there was no turnover of stock. And because there was no turnover of stock the merchant was going deeper and deeper into the red.
>
> Since that time, the President held, there has been an increase of Southern purchasing power, and Northern sellers are enjoying a Southern trade they never had before.
>
> The same conception is involved in aid of the economy of the Republics of Central and South America, he went on. When the United States helps them it is helping itself, although a lot of people remain to be convinced of the advantages of putting other people on their feet.[2]

On his return from conference, at Cairo and Teheran, the President reported to Congress and to the people in a message which again stressed as one of the basic essentials of peace "a decent standard of living for all individual men and women and children in all nations. Freedom from fear is eternally linked with freedom from want." The President continued:

> There are people who burrow through our nation like unseeing moles, and attempt to spread the suspicion that if other nations are encouraged to raise their standards of living, our own American standard of living must of necessity be depressed.

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[1] *New York Times*, 25 Nov. 1942.
[2] *Christian Science Monitor*, 25 Nov. 1942.

The fact is the very contrary. It has been shown time and again that if the standard of living of any country goes up, so does its purchasing power—and that such a rise encourages a better standard of living in neighbouring countries with whom it trades. That is just plain common sense—and it is the kind of plain common sense that provided the basis for our discussions at Moscow, Cairo and Teheran.[1]

In the fall of 1943 the Secretary of the Treasury, Mr. Henry Morgenthau, Jr., wrote, in a foreword to proposals for a Bank for Reconstruction and Development prepared by United States Treasury experts:

It is imperative that we recognise that the investment of productive capital in undeveloped and in capital-needy countries means not only that those countries will be able to supply at lower costs more of the goods the world needs, but that they will at the same time become better markets for the world's goods. By investing in countries in need of capital, the lending countries, therefore, help themselves as well as the borrowing countries. If the capital made available to foreign countries would not otherwise have been currently employed, and if it is used for productive purposes, then the whole world is truly the gainer. Foreign trade everywhere will be increased; the real cost of producing the goods the world consumes will be lowered; and the economic well-being of the borrowing and lending countries will be raised.[2]

Mr. Wendell L. Willkie, Republican candidate for the Presidency in 1940, told an audience at St. Louis on 15 October 1943 that military power to repel aggression is not the final means of achieving peace. "The real foundation of peace and development must be economic":

The right way through is plain: expansion and development. Literally millions of people around this world are eager to work with us in co-operative economic effort. And if there is any one thing that we have learned in America it is that no man's prosperity needs to be had at the cost of another's. That well-being is a multiplying, not a dividing process.[3]

The Postwar Committee of the National Association of Manufacturers issued some "preliminary observations" in March 1943 which contained the following passage on "economic opportunity throughout the world":

It must always be remembered that the economic value of trade between the United States and other countries increases in proportion to the development of those countries with which we trade.

There is a widespread impression that if nations which formerly had little, if any, manufacturing activity should subsequently develop through their own efforts substantial manufacturing enterprise suited to their labour and resources they will thereby reduce the potential export markets of American industries and will reduce employment and living standards in this country. This, however, does

[1] Message to Congress of 11 Jan. 1944.

[2] *Preliminary Draft Outline of a Proposal for a Bank for Reconstruction and Development of the United and Associated Nations* (Washington, U. S. Treasury, 24 Nov. 1943), p. iii.

[3] *New York Times*, 16 Oct. 1943.

not necessarily follow. Abundant statistics show that, as manufacturing increases, buying power also increases and so does the demand for imports.

The volume of trade depends much more upon the buying power per individual than upon the degree to which the products of one country are complementary to those of another.

It follows, therefore, that world-wide efforts to raise the standards of living of the underdeveloped peoples through the more intensive use of their natural resources are bound to be beneficial to the people of the United States, as well as to those whose opportunities are thus broadened.[1]

Vice-President Henry A. Wallace, in a widely discussed address in May 1942, recalled that he had once remarked, "half in fun and half seriously" that "the object of this war is to make sure that everybody in the world has the privilege of drinking a quart of milk a day". He continued:

The peace must mean a better standard of living for the common man, not merely in the United States and England, but also in India, Russia, China and Latin America—not merely in the United Nations, but also in Germany and Italy and Japan. . . Everywhere the common man must learn to build his own industry with his own hands in a practical way. Everywhere the common man must learn to increase his productivity so that he and his children can eventually pay to the world's community all that they have received. . . .

At the next annual meeting of the National Association of Manufacturers, its outgoing president, Mr. William P. Witherow, took issue with the Vice-President:

Immediately after the war, government aid to war-torn countries is a foregone conclusion. But not the rehabilitation of their economy or the reforming of their lives. I am not fighting for a quart of milk for every Hottentot, or for a T.V.A. on the Danube, or for governmental handouts of free Utopia.

If the Government undertakes a "share-the-wealth" plan on an international basis, he said, "it may benefit those in foreign lands, but only by the impoverishment of the American people".[3]

A year later Mr. Witherow, now Chairman of the Board of the Association, again addressed its convention. Alluding to the "storm of concern" and the "lively exchange of ideas with so many alert minds" that his previous speech had provoked, he took as his theme "Every Hottentot a Capitalist!" He said:

Practical-minded Americans can see that the answer to the problem of the Hottentot is not to deliver a quart of milk to his doorstep. . . The real answer is to help him find the way to a better life; don't try to give it to him. . . Establish enterprise and trade, if you please. Then he can buy a cow of his own. . .

[1] *Jobs, Freedom, Opportunity, in the Postwar Years: Preliminary Observations by the Postwar Committee of the National Association of Manufacturers* (1943), pp. 37-8.

[2] "The Price of Victory", address before the Free World Association, 8 May 1942, New York City (printed in *Free World*, June 1942).

[3] *New York Times*, 3 Dec. 1942.

and instead of waiting for the international milkman—Uncle Sam—he can have not only a quart a day, but a gallon a day. . .

Helping the Hottentot to help himself is my recipe for establishing international economic security. He may need a few baskets in which to gather his coconuts. He may need a cow, or even a tractor, to cultivate his land and increase his crops. Most likely he'll need a little education not only on how to use tools but on the advantages of having milk, and the desirability of unparking himself and doing a bit of hustling in order to get it.

There is sense in our helping him to get his start. That would be a real humane investment and a good economic investment too if it brought us more coconuts in the long run. There is nothing foolish about investment—it is the very seed of betterment. . .

We must not fear the industrialisation of other nations. Not that we can stop it, but it has definite advantages for us. It may cause some shift in the price of some of our imports; but the industrialisation of South America, for example, should make more customers for American products, putting purchasing power in the pockets of millions of underprivileged who never were customers before. . But we can't sell abroad unless we are willing to buy. . .

. . . We can invest our wealth in the rebuilding of the world. But I said "invest", not "dissipate" or "squander". We will be investing only if we can know that what we provide will be used productively— to *energise* not to *enervate* those who receive it. . . Our best assurance . . . will be to insist on a fair return on our investment and to supply capital only for purposes giving promise of such return. . . Finally, we can give the post-war world American ideas—industrial technique—management "know-how". These are as important in production as physical equipment—and only by production can the shattered world be rebuilt.[1]

Mr. Henry J. Kaiser, whose feats of shipbuilding have earned him industrial fame, has frequently stressed the positive view of world economic development. On the same occasion as Mr. Witherow's first speech, he told the National Association of Manufacturers:

Let it be said again that there will never be any significant prosperity in America as long as there are great hosts of people living on the margins of poverty anywhere on earth. This is the hour for action and now is the time to begin the heroic and magnificent task of reconstruction.[2]

Mr. Robert J. Watt, international representative of the American Federation of Labor, said on his return from a visit to South America:

Helping to raise the purchasing power of the Americas is not only good for workers, but also excellent for business. Workers earning fifty cents a day are poor customers. . . Industrialisation of the other Americas . . . is a healthy trend. We need not fear it. There is convincing experience to show that export markets develop with industry, that rising standards of living flow from industrialisation. . . The labour movement of our country wants to help the countries of South America to raise their standards of living, so that we can better maintain

[1] Mimeographed speech, press release of the National Association of Manufacturers, 9 Dec. 1943.

[2] *Christian Science Monitor*, 5 Dec. 1942.

our own. We try to be realistic in our friendly approach because we realise that cheap labour markets and exploited workers are a threat to the standards in our own nation.[1]

Mr. James B. Carey, Secretary-Treasurer of the Congress of Industrial Organizations, has expressed his views as follows:

Abundance cannot be achieved at home if misery and poverty prevail abroad. When the people of one land cannot buy, crops rot in their neighbours' fields. Walls of isolation cannot be built high enough to keep out airplanes with loads of either goods or bombs. Disease is no respecter of boundaries. Cycles of unemployment spread from nation to nation just as they do from State to State. We must be concerned with raising the levels of living in other nations both because we are interested in the human beings who live there and because if their living standards and wages are low, they will undercut us on the world market and drag our standards down towards theirs. Moreover, misery abroad will continue to result in unrest that will give aggressive demagogues a chance to seize the helm and steer to new wars. . . There must be international co-operation in applying modern technology and scientific knowledge to the maximum development of the world's resources. . . Organised labour is not interested in a new American imperialism. . . But we should use our influence to see that the peoples of other nations have an opportunity to develop their institutions. . . They cannot do it if they are kept in poverty and misery by out-worn economic practices that prevent development of national resources.[2]

These quotations give an idea of the way the discussion is proceeding. On the whole, there is probably less open expression at the moment of the negative attitudes and fears than of the positive, encouraging views of world economic development, such as those which appear in the Atlantic Charter and in many statements of United Nations leaders. Perhaps this is partly because co-operative, hopeful, forward-looking utterances are wartime morale-builders and hence get a good reception at present. Will negative attitudes, in which countries figure primarily as competitors of each other, gain the upper hand when military victory has been won?

Anyone who discusses the problems of world economic development with ordinary people can testify that, combined with considerable goodwill towards the people of countries on lower living standards, there is in the advanced industrial countries a strong latent fear. When the cheap labour of foreign countries has been equipped with modern tools, how shall we be able to compete? Will not our markets disappear? Are not the resources of the world limited, so that more for the Chinese workers means less for other workers? A question put to the writer by a member of an audience in a mid-western American town sums up very well the concern of many people in the industrially advanced

[1] Excerpts from speeches made in April and May 1943, supplied by Mr. Watt's office.

[2] Speech at Grinnell College, 16 June 1943, from mimeographed text.

nations: "Can we help to raise the living standards of these other countries without lowering our own ?"

The object of this study is to find considered, objective answers to questions such as these.

II. MAIN CONCLUSIONS

It may be well at this point to state the fundamental assumptions upon which succeeding chapters will be based and then to outline in a preliminary way the main drift of the argument and the principal conclusions that are reached.

Throughout this study it is assumed that the United Nations will make use of their victory to establish some reasonably effective system of world political security. It is also assumed that economic development will not be prevented by civil wars or extreme factional bitterness in the countries where it would otherwise take place, or at least that there will be many areas where sufficient internal political stability exists for development to go forward. It is also assumed that international co-operation for promoting economic development will be forthcoming from the industrially advanced countries (in the form of technical assistance and capital loans) and will be acceptable to the developing countries. If any of these conditions are not present after the war, then the analysis given below of the effect of new economic development upon already established industrial areas may not be applicable or may be applicable only with considerable modification.

The economic analysis of the effects of modern development in new areas upon the established industrial areas will be presented in two main parts: first, effects arising out of *investment relationships* and second, effects arising out of those *changes in trade and production* which are set in motion by the increasing productivity of regions undergoing development. These two parts will be followed by a third which draws attention to certain cultural, political and politico-economic repercussions of new economic development. Specific attention will be given in all three parts to the question of policies and safeguards that might be adopted in order to bring the most beneficial effects and the least detrimental effects to the advanced economies and the newly developing economies alike.

General Thesis

The general thesis which emerges from this study is that economic development of new areas brings both opportunities and dangers to existing industrial areas, but that it is definitely possible, by policies of mutual co-operation and intelligent adaptation, to make the advantages far outweigh the disadvantages.

The equipping of industrially less advanced areas could help to provide a great new frontier of economic expansion. Particularly in the first difficult decade or two after the war, properly organised international co-operation in order to achieve a mutually beneficial *timing* and *direction* of equipment orders for the outfitting of new areas could help to stabilise employment and income in the equipment-supplying countries. In the absence of organised international co-operation for this purpose, however, the effect of new economic development both immediately and later might be much less mutually beneficial.

Economic development of new areas means an increase in the capacity of their peoples to produce and consume. This may be expected, on the basis of past experience, to bring a great increase in international trade, if political conditions are favourable. For established industrial areas the result will be a combination of new market opportunities and new competition. In part, the net effect of these developments upon any particular country of advanced industrialism will depend upon the accidents of geography and history—what lines of production the established area happens to depend upon, how specialised it is, what resources are available for new lines of production, and what specific things are being demanded and supplied by the developing areas. More important, however—and certainly more subject to control—is *the way in which the established industrial area reacts to the new situation.* The balance of advantage or disadvantage can be influenced decisively by the wisdom or unwisdom of the policy followed by its business enterprises, its organisations of workers, and its government. The key to the situation is *industrial adaptability.* Leading industrial countries can retain their lead and move on to still higher standards of living as other areas develop if they succeed in being adaptable, that is, if they shift labour and capital into lines of production where rising world income is bringing more rapid expansion of demand than of supply and out of lines of production where new supply is increasing faster than new demand. If established industrial areas react adaptively in this way, their own business opportunities, employment, and standards of living are likely to be raised by the development of new regions. If they react non-adaptively, or anti-adaptively, then the net effect may be bad for them.

The balance can be made more favourable for all parties concerned, indeed, the net result can be made a very important gain for established industrial countries as well as for those undergoing development, if economic development is promoted and guided in desirable directions by co-operative international action. The

use of multilateral agencies, including an international development authority which would assist member governments in harmonising their views on long-range developmental programmes and in the planning, financing, and execution of such programmes, would be an important means of fitting developmental and trade policies together in a pattern of greatest mutual benefit.

The Course of the Analysis, by Chapters

Investment, meaning the building of transportation systems, factories, houses, educational institutions, and increase of all sorts of equipment used in production, is in a very real sense the "activator" of modern advanced economies. At high levels of employment and income, business firms and individuals set aside large amounts of money as savings. Unless these savings are balanced by equivalent expenditures on investment—that is, unless a high rate of saving is matched by a high rate of investment—incomes shrink and jobs disappear. At times—and this may be true in the first several years after the war when pent-up demands are being released and emergency reconstruction is under way—there may be a tendency for too much investment in relation to savings; this would produce inflation. But, as a general proposition in the decades ahead, the chief danger in the industrially advanced countries will be too little investment to keep their economies going full blast, not too much. The investment stimulus that would be created by large-scale world development programmes participated in by capital from the advanced countries would therefore be a boon to them, helping them to solve their employment problems. If other world conditions were favourable, the investment stimulus from widespread developmental undertakings in many countries might well produce a new "long wave" of prosperity, in which periods of high economic activity would be longer and depressions shorter and less violent than otherwise.

The war has brought about an enormous expansion of the capital goods industries, including not only plant facilities but also the labour skills and the raw material sources that contribute to the making of capital goods. Large-scale programmes of economic development throughout the world would boost the demand for capital goods. This would have the advantage for the industrially advanced countries of offering additional outlets of a constructive sort for exactly those types of civilian goods to which their over-expanded war industries can most readily convert—machines, locomotives, ocean ships and river boats, electrical equipment, bridges, tractors, and the basic materials to make them, such as

steel, copper, aluminium and rubber. Post-war readjustment problems cannot be avoided by world development activities, but they can be made easier. Also, a rising demand for capital goods and raw materials associated with large-scale investment in less developed areas, together with the increase in productive capacity of other sorts which economic development would bring about, should promote a better balance in international economic relations and lessen some of the weaknesses that have contributed to financial and currency troubles in the past.

Investment of private or public capital from advanced countries in projects that raise the productivity of less developed areas is not "playing Santa Claus". A reasonable return on productive loans and productive business undertakings abroad can and should be expected. The soundness of developmental investment, from the point of view of repayment, depends, however, not only on its effect in increasing the productive capacity of the borrowing areas, but also on the ability of the debtor countries to earn the currencies of the creditor countries. In an expanding world economy this problem of international payment need not cause great difficulty. It does call for forethought, however. Measures suggested to meet it include: longer-term international investment programmes to regularise the flow of capital and avoid sudden reversals in flow; arranging the programmes so that there can be long terms of amortisation and low rates of interest and so that the proportion of technical aid that goes along with the capital is high; increased emphasis on equity investment and direct investment, less on the rigid bond form of contract requiring fixed money payments; distinction in loan contracts between local currency obligations and foreign currency obligations, with more flexibility in the latter; and adjustment of the import trade policies of creditor countries to permit the inflow of goods and services by which they can be repaid.

What may be the order of magnitude of the investment that could reasonably be made in less developed areas after the war, and how substantial might the stimulus be to the economies and the capital goods industries of the advanced countries? Some rough calculations are made in Chapter IV. It is clear that investment in less developed areas can by no means remove the necessity for vigorous domestic programmes of expansion and stabilisation in the advanced countries. The magnitude of the possible development investment abroad is great enough, however, especially in relation to the levels of domestic investment that would otherwise prevail in time of depression, to offer a significant benefit to the advanced economies if rightly organised—especially if an element

of counter-cyclical timing can be introduced. Immediately after the war the largest flows of international capital will probably be for the reconstruction of industrially advanced areas which have been bombed or fought over. Another large use of international capital funds may be in the progressive "young" countries which already have an advanced technology but lack capital. The less developed areas with low living standards and dense populations are limited in their capacity to use capital effectively at first because of social resistances encountered when modern methods are introduced, but their capital utilisation may rise to high figures once the process is well started.

The amount of mutual benefit for lending and borrowing areas alike will be greater if the international investment process is encouraged to go forward, not on a bi-lateral basis, but multi-nationally. In this connection an international development authority —which might be one institution or several related ones—could render important assistance. The functions which need to be performed are discussed in Chapter V.

The mutual benefit from well-planned development of less developed areas would be enhanced if the advanced countries were to offer inducements to the developing countries so that these latter would schedule part of the orders for capital equipment needed in their programmes in a manner to canalise this demand towards those particular industries and those particular localities which at any given time might be depressed and to step up the total volume of equipment orders in periods of actual or threatened general depression. For example, the Government of China (and of other developing countries) might be offered generous financing at especially low rates of interest for equipment orders to be placed with industries or industry branches in the advanced countries which might from time to time be officially listed as "underemployed". The benefit to China (and similar countries) would be much cheaper capital costs. The benefit to the advanced countries would be a higher and more evenly distributed level of employment and income. This mutuality of benefit is possible because the essence of the method is to manufacture additional real capital out of productive power that would otherwise run to waste in unemployment and under-utilisation of facilities.

The external trade of developing areas, according to past experience, may be expected to increase together with their capacity to produce and consume, unless this tendency is blocked by political insecurity or by a general economic depression leading to a breakdown of the world trading system. There is a very close connection (shown statistically in the charts of Chapter VIII) between

income and imports. This is a large part of the explanation, for example, of the fact that fewer than 12 million people in Canada to the north buy almost as much from the United States as more than 120 million people in the twenty Latin American Republics to the south. The more rapidly incomes rise in the developing countries, the better will be the market situation for the advanced countries and the easier will be the trade adjustments forced upon them by economic development. Projects which merely enable a country to substitute high cost production at home for goods formerly imported not only fail to raise the real income of the country attempting to develop its economy in this manner but injure the trade prospects of the advanced countries. Development in accord with the broad principle of "comparative advantage", with encouragement of flexible, multi-lateral trading relationships, is the most favourable course for both groups of countries.

As less developed areas acquire modern industries the composition of world trade will undergo important changes. The role of the simple "traditional type of exchange" of manufactured goods against foodstuffs and raw materials will continue to decline; specialisation will become more complex. Each country will import some types of manufactured goods and some types of raw materials and will export other types of manufactured goods and other types of raw materials. The trade in "semi-manufactures", representing specialisation by stages of processing, is likely to increase. Services, not ordinarily included in import and export totals, will play an ever larger role as the world grows more wealthy and communication improves. For some time, at least, developmental programmes would increase the trade importance of capital goods as compared with consumers' goods. The advanced countries will export more of the goods requiring complex manufacturing skills, much capital, and newer research. They should import more of the cheaper and simpler manufactured goods, thus lowering the cost of living and raising the real incomes of their less wealthy people in particular.

Some kinds of goods—the "new" dynamic products and those for which the market expansion as incomes rise is especially great—will have much more favourable prospects than others in a world of rapid economic development. It happens that the country which is in the best position to help or hinder post-war development programmes of other countries (the United States) is also in a better position than any other major country to benefit in its export trade from rapidly rising world income. The advanced industrial countries in general can gain the most from world economic development and suffer the least detrimental effects from it by being

adaptive—shifting, that is, from relatively unpromising to relatively promising lines of production.

Methods of encouraging industrial adaptability of this kind within the advanced countries and of lessening the burden of transition costs which might otherwise fall upon special groups of workers or investors or particular communities are discussed in some detail in Chapters X and XI. International arrangements could also be made to ease transition adjustments and to facilitate the process of adaptation. Some methods of encouraging "infant industries" in newly developing countries cause less disruption to established trading relationships than others; for example, direct subsidies to industries that give promise of being eventually well adapted to the country are less likely to be restrictive from the international point of view than are protective tariffs or quotas. They fit in better with a general programme of world economic expansion. The newly developing countries might be willing to take account of the impact on the trade of the advanced countries when planning their own development measures and to adopt various means to soften that impact, provided that the advanced countries on their part co-operate effectively by lending capital and technical aid, and by opening their own markets to at least some of the products that the developing countries can furnish them at lower cost than they could be produced at home.

One of the first effects of economic development in areas where living standards have been low and conditions of nutrition and health have been poor is to lower the death rate. More infants survive to grow up, and the toll from disease at all ages is less. The result is a rapid increase in the number of people. Later, after a time-lag, the birth rate also falls, population growth tapers off, and there may even be a tendency for the birth rate to fall below the death rate, bringing a decrease of population. At least, this has been the sequence of events in the past when countries have undergone modern economic development. The length of that time-lag between the fall in the death rate and the fall in the birth rate, especially in areas so heavily populated already as are China, India, and some other underdeveloped regions, can have very great significance both for the developing countries themselves and for the advanced countries. A great burst of population growth could absorb most of the effects of better production methods, leaving living standards still very low, and the resulting "population pressure" could also increase the likelihood of political tensions and wars. Remedies lie in the direction of the most rapid possible increase in living standards and great attention to raising the level of popular education as fast as rising incomes make this possible,

for the birth rate tends to fall as levels of living and of education rise.

Economic development in areas hitherto lacking modern means of production will bring profound effects upon the distribution of political power and cultural influence in the world. This study does not undertake to speculate about the precise nature of these effects. It does seem safe to say that as the productivity of countries now on a very low economic level moves upward their influence in shaping the course of civilisation will also greatly increase. Mutual interchange between diverse cultures will grow, and one-way "imperialism"—political and cultural—will decline.

Some Standard Bugaboos

The analysis summarised above provides a basis for answers to some of the practical queries which continually find expression in the more advanced industrial countries. "If we help to raise living standards elsewhere, will that not lower our own living standards? If low-wage countries industrialise, what about the competition from the low-paid workers who will now be equipped with machines? If every country industrialises, then where shall we trade?"

1. "*If we help to raise living standards elsewhere, will that not lower our own living standards?*" This is a question which bothers many people, including many who have an ardent wish to see better living standards throughout the world. The answer is that the more advanced industrial countries can co-operate in a general raising of living standards, not only without detriment to themselves, but with positive advantage to their own living standards. How? By helping to increase production. It is inefficient production that causes low living standards. If the people of south-eastern Europe, Latin America, Africa and Asia learn better techniques, install better equipment, and produce more, their standards of consumption will also rise. Their increased consumption will be matched by increased production and will not subtract in the least from the total amount of goods available for consumption elsewhere. In fact, the improved development of their resources will make it possible for other countries, by exchanging with them, to satisfy their own needs more efficiently.

It is not true that the world's basic materials are so absolutely limited in amount that if newly developing countries use more, the others must use less. The very process of developing new countries is likely to reveal new sources of supply and to lead to the invention of new materials. The limit on the amount of goods available for

man's use is not a rigid one; it depends on his capacity to produce, which is increased by installing better equipment and by general economic development.

2. *"If low-wage countries industrialise, what about the competition from the low-paid workers who will now be equipped with machines?"* Labour in the countries that lack modern industrial equipment gets low wages primarily because labour under those conditions is so unproductive. Economic development brings a rise in labour productivity, and as this happens wages should also rise. If they do not, then it is correct to speak of labour exploitation. It is desirable and justifiable that international influence be used to make sure that labour does receive improved conditions and improved wages as economic development proceeds.

It is cost of production per unit of output which counts in competition. The services of labour in undeveloped countries like China, though very cheap when measured in man-hours, are very expensive when measured in cost per unit of output, for all but a few types of production. Indeed, the cost of inefficiently utilised labour is so great per unit of output that China is unable to compete with the United States and other high-wage countries in most kinds of industrial production and has to confine its exports on the world market to raw materials of kinds relatively abundant in China and to certain finished goods requiring much hand labour, relatively small amounts of capital and relatively simple techniques. The only way that a Chinese manufacturer can compete with an American manufacturer in any line at all is by being able to hire labour at a very low price per hour. And then he can only compete in lines where unskilled labour is the main factor in production costs. This situation will change as modern techniques are adopted in China and as capital equipment becomes more available—in other words, as China develops its economy. But, by the same token, labour will become more productive, and wages should rise.

The real kernel of truth in the fears respecting the competition from the low-wage labour of newly developing countries is this: as the efficiency of these countries increases, they will acquire a cost advantage in certain lines of production where they have not had a cost advantage before. They will be able to sell more goods abroad, including new kinds of goods. But they will also buy more goods, including new kinds of goods, from abroad, since they will have rising consumption demands. The key to the problem of avoiding adverse effects from the new competition of newly developing countries is to be found in a policy of promoting adaptation—that is, encouraging the transfer of capital and labour into the lines where opportunities are expanding and out of those

lines where other countries are becoming able to produce at lower cost. The competition of "low-wage labour" in the newly developing countries will not injure labour in the advanced countries if the advanced countries maintain flexibility, keep in the forefront of technical progress, and aim at expanding production in promising industries rather than at defending to the bitter end those industries for which the outlook is unpromising.

3. "*If every country industrialises, then where shall we trade?*" There have always been fears of this sort in established industrial countries as the next countries embarked upon the path of industrial development. Such fears are based on a mixture of truth and falsehood. The falsehood is the idea that if each country industrialises and diversifies it will not buy as much as before. Usually, the opposite is the case. Consumption rises hand in hand with production. Trade with developing countries will increase in total volume, unless political conditions are unfavourable.

The truth in these fears is that the character of the trade with countries undergoing development will shift. It will not be possible to sell them exactly the same kinds of things as before. There will be new competition in some lines of production, both within the markets of the developing countries themselves and in the general export market. On the other hand, the countries of advanced industrialism will find increasing opportunities opening up for other kinds of products. The new demands will be felt particularly in the field of the more highly technical goods, capital goods, and many kinds of consumers' goods that will be used in larger quantities as the increased real incomes of the people of the world enable them to buy more. But it will be necessary for the older established industries of the advanced countries to keep moving ahead, to adopt new techniques, and in some cases to shift to new kinds of products if they expect to maintain their industrial leadership. It will be necessary for the advanced countries to adopt a deliberate policy of encouraging industrial flexibility and mobility. Government, business and labour in the advanced countries will be wise to reject proposals for defending vested interests against the need for change and to adopt instead a policy of facilitating and encouraging adjustment.

Positive versus Negative Policies

There are two general attitudes which might be adopted in the advanced industrial countries by labour, management, and government as less developed countries begin to embark on programmes of fundamental economic improvement. The consequences of these two attitudes would be very different.

First, the advanced countries could adopt a negative attitude towards economic progress elsewhere. They could discourage and hold back development, either intentionally, or by indifference and by short-sighted policies. They could refuse loans and technical help, erect import barriers against new exports from the developing countries, and look with fear upon the increase in the productive and trading capacity of these countries.

The consequence of such an attitude would be to slow up the development of the newly developing countries, but not to stop it. Even countries on fairly low living standards, though they ordinarily have a low margin of saving available for productive investment, are able to develop their resources without the aid of foreign capital. This has been shown by the example of the Soviet Union. In any case, it is unlikely that a boycott of the newly developing countries would be maintained by all the advanced industrial countries. A negative attitude on the part of a few of them would not prevent economic development, although it would slow it down and make it more difficult.

What the negative attitude would do is this: it would make it impossible to achieve, in any considerable degree, a mutually beneficial co-ordination between the development of new countries and the industrial employment needs of advanced countries. It would throw away opportunities for arranging international co-operative measures that would ease transition adjustments. Politically, the consequences of such a negative attitude would be to earn the ill will of the peoples and the leaders of the newly developing countries. They would be stimulated to adopt policies of self-sufficiency and exclusive nationalism, and perhaps even to think of conquest when they should have acquired sufficient power.

On the other hand, the advanced industrial countries could adopt a positive attitude. They could encourage the development of new areas, co-operate with them by furnishing equipment, technical assistance, and capital loans on reasonable terms. They could look upon the increased production and the increased trading capacity of the newly developing countries as opportunities from which the established industrial countries could derive great advantage, and they could deliberately set about making the most of those opportunities. They could encourage the requisite adaptability, and could assist those groups in their own countries on whom special burdens of transition adjustment might happen to fall.

The consequences of such a positive policy would be to speed up the development of the new areas, and also to permit the working out of co-operative plans whereby development of these new areas might be co-ordinated with the economic needs and problems of

the established industrial countries. If co-operation were active enough, the newly developing countries would probably be willing to construct their plans in such a way as to refrain from unnecessarily rapid expansion in those lines which would create especially difficult problems of adaptation for the older industrial countries, and to push other kinds of expansion instead. Needless to say, the economic effects on the older industrial countries would be far more beneficial in such an atmosphere, and the benefits to them would be offset by fewer disadvantages.

Politically, the positive policy would create a setting much more conducive to general international co-operation. There would be a greater chance that the world might stabilise itself after this war and might successfully make the many difficult adjustments that will have to be made if future decades are not to be marked by a fatal sequence of global wars. The chance that world political organisation might develop by a process of voluntary, democratic co-operation instead of by the alternative of repeated wars and perhaps ultimate totalitarian dictatorship would be much greater. All in all, there can be no reasonable doubt that the positive and co-operative attitude is by all odds the one most likely to make the process of modernisation in new areas a beneficial one, both for the older industrial areas and for the new.

PART I

EFFECTS ARISING OUT OF INTERNATIONAL INVESTMENT FOR DEVELOPMENTAL PURPOSES

A. The Nature of These Effects

CHAPTER I

ACTIVATION OF ECONOMIES: A CONTRIBUTION TOWARDS FULL EMPLOYMENT AND PROSPERITY

To repeat, the assumptions of this study are: a United Nations victory; establishment of a reasonably adequate international security system, and a fair degree of internal security within most areas of the world; willingness on the part of some countries to lend technical aid and important amounts of capital (whether through private business or public agencies or both), on reasonable terms, to assist in the economic development of other countries; and willingness of the latter countries to make use of such assistance. Under these circumstances, rapid development would no doubt take place in many parts of the world. The purpose of the analysis that follows is to show the probable effects of such development on established industrial areas. Part II will consider the repercussions on the advanced countries of shifts in production, consumption and trade as a result of economic development in other areas, while Part III will deal briefly with questions of population pressure, political power and cultural influence. The object of the present Part is to explore the significance for established industrial areas of the international investment relationships likely to be associated with new economic development.

On the assumptions stated, a considerable flow of capital could be anticipated in the post-war period from areas of high savings into areas where there is promising opportunity for industrial development but scarcity of capital. The high savings areas would naturally be the more advanced and prosperous countries and, at least in the early years, those least weakened economically by the war. These are also the areas most likely to have unemployed manpower and capacity in the heavy capital goods industries. The areas appropriate for investment of outside capital would include countries where reconstruction of plant and equipment and restoration of working capital has to be undertaken, highly and partly developed countries where the rate of economic growth

still tends to outrun the availability of local capital, and less developed countries ripe for modernisation and industrialisation.

This flow of capital would undoubtedly take a variety of forms. Under favourable conditions, important amounts would go as direct investment by private firms of the lending countries for establishment of processing plants based on local raw materials, branch factories or assembly plants, distributing and technical service agencies, and the like. Other capital would be loaned to governments, to public developmental corporations, to private firms, or to mixed public-private corporations through the sale of securities in the financial markets of the advanced countries. Producers of equipment or their bankers would advance some capital to the newly developing countries in the form of long-credit terms, a process which might be facilitated by government funds, nationally or through an international agency. Other capital, which might be a large fraction of the total in the unsettled years of transition following the war and in the initial stages of opening a new region to comprehensive development, would be advanced by national or international public agencies. Governments acting jointly might establish an international investment bank which would both finance developmental projects out of its own funds and encourage private financing by helping to make arrangements and covering part of the risk. The analysis that follows applies generally to all these methods of making capital available internationally.

Countries on the threshold of modern development can benefit very greatly from an opportunity to borrow abroad, provided that capital can be had on reasonable terms, that it can be dissociated from political and economic domination, and that proper precautions are taken against unproductive borrowing and overborrowing. More abundant capital means better transportation by road, waterway, railway and air, better equipment for mines, factories and farms, and readier availability of necessary stocks of raw materials and inventories of all kinds which facilitate commerce. All this adds up to higher productivity for the labour of the country and hence to more remunerative jobs. It also means a stronger industrial base for military action and a greater capacity to defend the country's independence and to make its desires count in the political councils of the world. Spurred on by the thought of such advantages to be gained through the increase of industrial capital, leaders of some capital-poor countries may succeed in forcing a rapid pace of industrial development even though little or no aid is available in the form of capital from abroad. But to support such a forced pace from local resources alone the people of an area where capital is scarce would have to undergo severe privations and suffering.

A political dictatorship might, in practice, be the only means by which such a programme could be imposed. A given rate of development can be carried through much more easily and with much less suffering and loss of freedom for the people concerned if outside capital is available on reasonable terms. Also, the benefits to be had in the form of higher production and living standards can be reaped much more quickly.

But what will be the effects upon the advanced industrial countries from which the capital comes? We are not here concerned with the longer-range effects resulting from the fact that capital supplied to areas under development will sooner or later increase the production and consumption of those areas and bring about shifts in trade which may mean new market opportunities or new competition for other industrial regions.[1] The question raised here concerns the effects of the process of investment itself. What will it mean to the advanced industrial countries to transfer the use of some portion of their savings to the newly developing countries?

The answer to this question depends in part upon the timing of the developmental investment in relation to the tendencies in the capital-providing countries towards inflation and deflation, boom and depression. Special account will be taken of this fact at a later stage in the discussion.

The Savings-Investment Balance in Advanced Economies

The term "investment" as used here will mean "real" as distinct from "financial" investment. It will refer, not to the buying of stocks or bonds, but to the canalisation of a part of current productive activity into the building of railways, highways and ports, the construction of factories and school buildings, the installation of machinery, the equipment of laboratories and educational institutions and the maintenance of their personnel.

Investment performs two functions in the modern economy. In the first place, it serves to increase the productive power of society. In the second place, it offsets acts of saving (that is, non-use of current income for consumption) which individuals, business firms, governments or other public or private agencies wish to perform. In so far as investment balances these acts of saving it prevents them from leading to a decline in the level of employment and income. Investment, therefore, is not merely a means of improving productive equipment. It is also, in a very real sense, the *activator* of the economy.

The central conclusion emerging from the modern analysis of the problem of depression and unemployment may be stated thus:

[1] This topic is reserved for detailed treatment in Part II.

modern highly productive industrial societies do not desire to consume currently all the goods and services that they are capable of turning out at full employment. That is, their members desire to save. What the individual or institutional saver does is to refrain from spending for consumption some part of the income he receives. If the part of income not used for consumption (*i.e.*, saved) is spent on real investment in some form or other—for example, if the saver uses it himself to buy a machine, or lends it to someone else who buys capital goods with it—or if it is offset by an expansion of investment somewhere else in the economy, then the size of the community's total income stream is maintained. If, on the other hand, the saving is not balanced by an equivalent amount of investment the total amount spent in the economy will fall. This means that the receipts of business firms and their payments to employees will fall. Income and employment will decline. Therefore, full employment and economic prosperity can be attained and maintained only by having an adequately high rate of investment to offset the saving that members of the community wish to make when they are employed and prosperous.

The rate of saving in a modern industrial economy is highest in periods of prosperity when people are at work and when total income is large. Families with annual incomes of $2,000 a year ordinarily save a higher percentage of their incomes than those with $1,000 a year and those with $3,000 save a still higher percentage. The percentage of income saved tends to rise as income rises. Also, countries with high average income levels tend to save a larger percentage of income than those on lower income levels. The higher the productivity and living standards achieved by a given country and the more nearly it attains full employment and maximum prosperity, the higher its rate of saving is likely to be. This means that the economic well-being associated with high incomes and full employment can be maintained only if there are outlets or offsets for a large amount of saving—that is, only if the rate of investment is high. The rate of investment must be high enough to balance not merely the shrunken savings which people make at *low* levels of income in time of depression, but large enough to balance what people will want to save at the *high* levels of income attained in times of prosperity and full employment.

May we expect that the countries of advanced industrialism will continue to try to save substantial parts of their income when they are prosperous? If so, what about the outlook for investments to balance these savings and to keep their economies regularly employed and prosperous rather than more or less chronically depressed? These questions will be examined briefly.

The Outlook for Savings

First, what indications are there of the prospective rate of saving in the industrially advanced countries? In the United States, the wealthiest of them all, this problem was subjected to study by the Temporary National Economic Committee in a series of monographs and hearings. The evidence indicated that individual savings in the United States in prosperous times are likely to be high. Persons who have adequate income want to protect their families by buying life insurance and life insurance premiums have a large savings element. People want to save for a rainy day, for a new house, or for old age, and this results in building up the funds of insurance companies, postal and mutual savings banks, pensions and trust funds, building and loan associations and the like.

From 1923 to 1929 individual savings flowing to savings institutions resulted in a growth of their assets and funds at the rate of $4,000,000,000 per year. During the depression the flow of savings declined sharply, but since 1935 has returned almost to the old level. The present flow of savings to these institutions is greater relative to national income than before the depression. If to this flow of savings is added the flow of savings through idle demand deposits in commercial banks and through trustees, foundations and investment trusts, it would appear that investment outlets (over and above replacements and refundings) running into large figures, perhaps five or six billion dollars per year, must be found for these reservoirs every year if the savings of individuals are to be put to work.[1]

At the same time, business corporations in the United States contribute heavily to the national savings by setting aside very substantial reserves for depreciation and depletion and by retaining a portion of their earnings to be used in business expansion. In fact, the bulk of the "venture capital" needed by American industry for its own further development appears to be coming from business savings.

From 1923 through 1929 business enterprises invested on the average $8,700,000,000 each year in plant and equipment and of this, $6,400,000,000, or 74 per cent., came from funds accumulated from internal sources: retained earnings, plus allowances for depreciation and depletion. During the five years 1935-39 average outlays for plant and equipment were $5,800,000,000 and of this $4,800,000,000, or 83 per cent., came from internal sources.[2]

In the United States, as well as in many other advanced industrial countries, new social security systems are in process of

[1] Oscar L. Altman: *Saving, Investment, and National Income*, Monograph No. 37 of the T.N.E.C., 76th Congress, 3rd Session, Senate Committee Print, Investigation of Concentration of Economic Power (Washington, Government Printing Office, 1941), p. 49.

[2] *Ibid.*, p. 56. See also the *Hearings* before the Temporary National Economic Committee, Part 9, pp. 3684, 3692.

installation. If these are managed to any considerable extent on the private insurance principle of accumulation of reserves this will mean a further temporary increase in aggregate savings. Of course, eventually annual out-payments from private and public insurance funds will balance or overbalance receipts. But that stage may not be reached for some time. If post-war economic policies are successful in providing millions of individuals in many countries with steady employment at rising incomes, many people will become able, perhaps for the first time, to make substantial savings. Unless there are very drastic changes in habits and social institutions in the meantime, they will want to save, through insurance funds, banks and in other ways.

There are also counteracting forces at work, that is, forces tending to decrease the rate of saving and to increase the proportion of income spent on current consumption. High income and inheritance taxes and other measures tending to even out the distribution of incomes have this effect, for most of the individual saving is done by those who have large incomes. The extension of social security benefits, increasing public expenditures for community health, for parks and playgrounds and entertainments, and other forms of collective expenditure on consumption, have the effect of decreasing the amount of saving for which investment outlets must be found. There is evidence from Great Britain, for example, of a long-term downward trend in the proportion of the national income saved. But these changes work slowly. Furthermore, their effects may be more than offset for a time by the effects of rising income levels, if post-war economic policies do actually succeed in bringing prosperity. As new groups of people move upward into the brackets where substantial savings can be made, the aggregate amount of saving that the community desires to make is likely to rise, despite some counteracting influences.

The probabilities are, therefore, that industrial communities after the war will still want to save very substantial amounts in prosperous times, when employment and income are high. These savings will have to be put to work, that is, they will have to be balanced by investment. Otherwise the high level of employment and income cannot be maintained and prosperity will fade into depression. It is most likely that the following observation will continue to be true not only for the United States but for the advanced industrial countries generally and for the world economy as a whole after the war: "No high level of employment and income has ever been achieved without a large outlay on plant equipment and new construction".[1]

[1] Alvin H. HANSEN: Testimony before the Temporary National Economic Committee, *Hearings*, Part 9, p. 3498.

The Outlook for Investment

What, then, are the prospects for post-war investment? Will the investment opportunities available to the advanced industrial countries be large enough and attractive enough for the flow of investment funds to offset the volume of savings that individuals and institutions want to make when they have high incomes? In other words, will the flow of investment be sufficient to maintain prosperity?

Some of the factors that were very important in stimulating investment and promoting economic expansion during the nineteenth and early twentieth centuries will not be present to the same degree in the decades following this war. A great stimulus to economic activity in the past has been rapid population growth, combined with the settlement of new territory. England's population increased by three and one half times during the nineteenth century, and that of Europe as a whole more than doubled. The population of the United States increased fifteen-fold. All this meant an insistent demand for new houses, new public utilities, new schools, new transport facilities and new equipment of all kinds for a constantly growing community. There was also an automatic pressure for more and more investment as the result of the opening up of the American continent, the building of all the great cities of the United States and of other new areas of settlement, enlargement of the cities of Europe and the increasing demand for all sorts of necessities and comforts as cheap foodstuffs from the newly developed areas and increasingly efficient methods of production permitted the living standards of European peoples to rise. There were ups and downs of economic activity, to be sure, but the general trend was a rising one. This enhanced the chances of success for the business man willing to invest boldly. If he overestimated the demands of his immediate market and built too big a plant there was a good chance that the growth of population and rising income would make the venture turn out right after all.

The situation in the advanced industrial countries will be quite different in the future. New land for settlement on a mass scale is no longer available. Population growth is slowing down.[1] Markets in the western world will cease to feel the expansive influence of growth in population and territory. This disappearance of certain automatic growth factors that have been very important in the past removes much of the stimulus to what may be called "extensive" investment—that is, investment required merely to equip more

[1] In eastern Europe and in Asia there continues to be rapid population growth, but the trend has definitely turned downward in the countries of more advanced industrial development. See Chapter XIII.

people and more land. This does not mean that the advanced industrial countries must necessarily suffer economic stagnation and chronic depression. But it does mean that they will suffer these evils unless new investment outlets are developed or drastic adjustments are made in the rate of saving, or both.

Another great source of investment stimulus in the past has been the industrial application of new inventions and the growth of new industries. In fact, the familiar "long waves" which economists have observed in economic activity—characterised in the upward phase by prolonged periods of high prosperity and relatively short depressions, and in the downward phase by long, intense depressions and relatively short periods of prosperity—have been accounted for by some writers largely in terms of the growth and the cessation of growth of great new industries. Thus, the buoyant period from the 1840's to the 1870's was the era of rapid investment in railroads and in the many new enterprises that the railroads made possible. Then the rate of increase in railroad investment slackened off and during the last quarter of the nineteenth century, from 1873 to 1897, bad times prevailed. Thereafter, according to this interpretation, the electrification and motorisation of the western world, bringing with it investment in street railways, telephones, electric power, automobiles, service and repair stations, and highways, produced another upward surge which lasted into the 1920's.[1]

What are the prospects for similar great new industrial innovations requiring large investments of capital in the future? There is no doubt about the innovations. Aviation, plastics, pre-fabricated housing and dozens of new products loom on the industrial horizon. Some students of these problems have expressed doubts, however, whether any of the new industries now visible will require as much capital investment as railways, automobile roads and the other great developments of the last century. One of the effects of modern technological progress, especially technological progress based on the recent great expansion of industrial research, is to increase the effectiveness of a given quantity of capital equipment. A smaller but more efficient machine, a less expensive but improved process, increases output while actually *reducing* the amount of invested capital. Many industrial corporations, merely by spending their depreciation allowances on equipment which incorporates the latest technological improvements—that is, without any additional net investment—are able to make enormous increases in output and even to branch out into new products. Therefore, even though new products and new industries will assuredly arise, some

[1] Alvin H. HANSEN: *Fiscal Policy and Business Cycles* (New York, Norton, 1941), pp. 27-41, and other writers there cited.

have questioned whether they will provide as great an outlet for savings and as much stimulus to economic activity as did the railway and the motor car. Perhaps they will. Perhaps the future opportunities for *intensive* investment will be as great as or greater than ever.

But even supposing that *intensive* investment in new industrial techniques and equipment will be as important a stimulus to economic activity in the future as it has been in the past, what is to take the place of the great *extensive* expansion of investment that was formerly associated with population growth and the opening of new territory?

> Technological innovations making for *intensive* expansion may be expected to continue with unabated vigour. Our society can, therefore, remain as highly dynamic as that of the nineteenth century only if we can find a substitute for the *extensive* stimulus to investment springing from territorial expansion and population growth. Geared as our economy is to a high net investment level by a deeply rooted pattern of consumption with respect to income, we shall be compelled to seek full employment of our resources by deliberately injecting a new stimulus to investment. It is just because we have developed, in our highly dynamic society, firmly fixed institutions and habits affecting the income elasticity of saving that we cannot rely upon autonomous increases in consumption to provide full employment once the *extensive* expansionist stimulus to investment has largely disappeared.[1]

We have seen that advanced industrial countries operating at full employment levels tend to save—that is, to refrain from spending on consumption—an important part of their income. Unless these savings, or potential savings, are balanced by an equivalent amount of investment, production falls below the full employment level and the income stream shrinks until it reaches a point at which the savings that people are able to make are no greater than the volume of investment being made. Over the past century there have been both extensive and intensive outlets for investment, the former providing equipment for new territory and a rapidly growing population, the latter developing new industries and increasing the amount of capital per worker. While the postwar opportunities for intensive investment in the advanced industrial countries may be as great as ever, the lack of new lands for settlement and the tendency of population to decline rather than to increase means that the extensive stimulus will be considerably less. On the basis of considerations such as these it has been said that "The problem of our generation is, above all, the problem of inadequate private investment outlets".[2]

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[1] *Ibid.*, p. 306.
[2] *Ibid.*, p. 362.

Developmental Investment as a Stimulus

What can be done to bring a balance between investment and savings at a high level of employment and income? The possible lines of approach are two. One is to decrease the rate of saving (that is, to increase the proportion of income currently consumed). Too much thrift, though we regard thrift as a virtue in the individual, may lead to depression in the economy as a whole, if there is a tendency to save more than can be put to use. The other is to increase the rate of investment. It has already been indicated above how tax policy and other measures encouraging a more even distribution of income, together with collective expenditures on community consumption, may help in the first type of endeavour. It has also been observed that this process is fairly slow and may be offset in considerable measure if we actually begin to be successful in attaining new high levels of income for many people in the post-war world.

In connection with the second line of attack, many suggestions have been advanced for stimulating both private and public investment within the countries where large volumes of savings are likely to appear. The methods most frequently discussed include promotion of large-scale housing programmes; encouragement of industrial research leading to new products; redevelopment of cities, especially redesigning of transportation and terminal facilities; regional developments on the pattern of the T.V.A., involving irrigation and the production of electric power, better equipment of farms and improvements of farm land, and encouragement of diversified industry. It is widely recognised, for example, that international co-ordination of domestic public works policies and other domestic measures to sustain investment and employment is desirable.[1] If many countries act together with simultaneous measures to increase their several rates of investment, the international reaction of each country's expansionist policy helps the others. The risk of failure, and especially the risk of adverse pressure on the external balance of payments as a result of internal expansionist measures, is made less for each country.

In addition to domestic measures and their international co-ordination, however, the investment stimulus that would be provided by a large-scale international programme of economic development might play an important role in maintaining a high level of economic activity during the decades ahead. Some of the savings of the more advanced industrial regions would be turned

[1] See in this connection, the Public Works (International Co-operation) Recommendation, adopted by the International Labour Conference in 1937.

into capital equipment for the rehabilitation of war-torn areas, for the hastening of economic progress in countries possessed of modern techniques but lacking capital and for the modernisation of countries lacking both techniques and capital. Such international capital development would help to sustain the rate of real investment and thus to maintain a high level of income and employment throughout the industrial world. A great international programme of development, fitting the capital needs of some areas to the abundant savings of other areas, might provide just the extra stimulus needed to put the post-war era into the upward phase of a new "long wave" in economic activity. It would help to make depressions shorter and milder and to produce more stable periods of prosperity at higher levels of employment and income. The expansionary effects of a multitude of economic development programmes over the face of the earth, especially after the outfitting of less developed countries with modern capital equipment had had time to get well under way, could conceivably compare with the great stimulus to economic life provided by population growth and the opening of new territory in the nineteenth century. It could go far, together with domestic developmental programmes, towards making the late twentieth century an era of "expanding economy"—that is, an era of high investment balancing a high level of savings, with rising incomes, progressive improvement in living standards, and relatively little unemployment.

A word should be said at this point about the *timing* of the need for additional investment stimulus which the advanced industrial countries may experience in the post-war decades. For a few years immediately after the war there is likely to be a general tendency towards boom conditions in countries which, like the United States and Great Britain, have their industrial systems intact. This would result from the release of pent-up demands for consumers' durable goods such as automobiles and refrigerators, backed by purchasing power in the form of war bonds, from the urgent industrial demands for equipment and materials with which to reconvert to peacetime production, and from the demands of war-torn areas for equipment and materials to be used in reconstruction. Providing the transition from war to peace can be managed without too much confusion, the first few post-war years may, therefore, be ones in which additional *general* demand is not immediately needed. In fact, the main problem may be to prevent the abnormally large immediate demands from producing a great price inflation and an unbalanced expansion, followed later by a disastrous collapse of demand and general depression. When this period of abnormal post-war demands has

passed, however—a few years after the end of hostilities—the longer-range considerations discussed above will come into play. Even the immediate post-war boom, if it occurs, is likely to be uneven in the sense that some sectors of industry and some localities will have depression and unemployment. The practical bearing of these points upon international developmental policy designed to bring the greatest common benefits and the fewest detrimental effects to newly developing and advanced countries alike will be considered in Chapters VI and VII.

The Effects of Repayment

It is assumed in this discussion that capital funds for investment in economic development will not be free gifts, except, perhaps, for some of the funds advanced to restore production in war-damaged areas in the period immediately after the war. Rather they will be loans of capital on which a fair rate of return can and should be paid out of the increased productivity that they help to create. The problem of international payment—the transfer problem—will be discussed later. The following remarks concern the effects of repayment in the lending countries.

It has been argued above that the process of investment in international development will have a stimulating, activating effect on the economies of the advanced, capital-exporting countries. But what will happen when the time for repayment comes? Will the reverse flow create chronic economic depression in the creditor countries?

In the first place, it should be pointed out that any prospective difficulties in the advanced industrial countries when a net export of capital turns into a net import of repayment would be so far in the future, supposing a really large developmental programme to be launched, that they could be discounted rather heavily. The rate of capital outflow, given adequate measures to maintain world economic and political stability, could have a rising trend for many years. Immediately after the war there will be an urgent need for capital to be used in restarting peacetime production and in reconstructing industrialised areas damaged by the war. Soon thereafter some of the "young" countries already well started on industrial development might be absorbing sums of capital which in the aggregate would be considerable. Slowly at first, while the difficult initial adjustments are being made, but later at a rising tempo, such huge underdeveloped areas as China and India might draw upon the world's capital resources for their industrialisation. The opportunities for productive employment of capital equip-

ment in the less developed parts of the world (and that is still most of the world, measured either in population or in territory) are so immense that a large flow of investment could continue for a generation or two. Repayments of old loans would be more than counterbalanced for many years by the making of new ones. In a fairly well-working economic world investors as a group would be quite likely to leave their *principal* invested or to reinvest it. Thus, the repayment problem would be limited to regular transfer of interest and dividends.

So many things can change while the long-term process of world economic development is going forward that fears as well as hopes projected far ahead are likely to prove baseless. In view of the urgent economic problems that will confront the world in the crucial decades after the war, the present generation could hardly be blamed for refusing to reject an otherwise promising line of policy simply on the ground that it might have adverse repercussions twenty-five or fifty years in the future—unless, indeed, those adverse repercussions could be shown to be very probable and very large. That is hardly the case, however, with the problem of receiving repayments for exports of capital used to tap the unexploited resources of the world.

It must be remembered that, assuming the developmental programme to be reasonably successful, repayment will come only after a considerable increase in productivity has taken place in the world. Not only the effects of the investments themselves, but constant improvements in technology will raise the level of productivity. Trade as well as production will expand, and there may be important increases in the purchases and sales of international services, such as tourist travel. Thus, the repayments for successful developmental investments, although larger than the original advances in absolute amounts (counting interest) will be considerably *smaller* relative to the size of national incomes and the amount of international trade and services at the time repayments are made.

Finally, in view of the fact that the net flow of capital funds need not turn back towards the original lenders for many years and that the reversal when it comes can be gradual, a world development programme would give time for economic adjustments to be made in the advanced countries. Appropriate adjustments—particularly, a substantial increase in the percentage of current income consumed (that is, a decrease in the rate of saving)—would eventually enable them to receive repayment to advantage. Such adjustments could take place over several decades. The problem of maintaining a high level of economic activity would be solved, or

at least would be made much less acute, by the transformation of "high savings economies" into "high consumption economies". Under these circumstances a net inflow of capital in repayment of past investments need not depress the economies of the original lenders. Instead, it would add to their wealth.

CHAPTER II

EASING POST-WAR READJUSTMENTS

One of the great problems at the end of the war will be the re-transfer of workers and equipment from industries directed towards war demand into industries directed towards civilian consumption. This is a problem of "structural" readjustment, by which is meant a shift in the relative importance of different industries or occupations or locations in the economy as a whole.

The structural change involved in "economic demobilisation" will be much more serious after the present war than after the First World War. Conversion to the war effort has gone much further than it did in 1914-18. Enormous expansion has taken place in certain lines—for example, in shipbuilding and machine tool making—which will leave a legacy of installed capacity and trained management and men sufficient to produce an output many times larger than any conceivable regular peacetime demands. New mines have been opened, new sources of rubber and other raw materials have been tapped and impetus has been given to a great variety of technological developments, all leading to larger outputs of raw materials and foodstuffs.

We need not fear production as such. Until men are much better fed and clothed and housed there is no danger of too much production in the aggregate. The danger from this war-stimulated capacity to produce is an *unbalanced* production. The new installations of plant and equipment, the training and upgrading of labour and management, have all been directed towards the needs of war. The demand structure after the war will be markedly different from what it is now. That is, the things for which individuals, business firms and governments will be prepared to place orders will not be the same things for which production capacity has been enlarged. The production structure will not fit the demand structure. Great readjustments will have to take place.

The preceding chapter has made the point that a world programme of economic development would provide a constructive use for large savings and thus would help to maintain over-all effective demand for the products of labour. This is essential if

we are to have a high level of employment and prosperity. General "activation" of the economy by large amounts of investment is also the first step, indeed a *sine qua non*, for successfully meeting the problem of structural readjustment after the war. But even with a high general level of demand there will be serious problems of excess capacity in certain lines and in certain broad fields of industry. At best, the problem of retransfer in order to make the post-war structure of production conform to the structure of demand will be troublesome and lasting.

There is another very important relation between a post-war programme of industrial development and the problem of readjusting the production structure. The character of post-war demand if we *do* have large-scale international development will be considerably different from the character of post-war demand if we *do not* have it. In the first case there would be considerably greater demand for the materials and tools of construction, for heavy goods, electrical and transportation equipment and the raw materials that go into them. Such a demand structure would be closer to the production structure that the world will inherit from the war than a peacetime demand structure *without* large-scale economic development would be. The necessary readjustments in production, difficult enough in any case, would be correspondingly less serious.

In particular, a world-wide programme of economic development would mean that there would be less need than otherwise for the advanced industrial countries to contract their war-expanded capital goods industries. There would also be less pressure for cutting output, eliminating installed capacity, and reducing the number of workers in the raw material industries that feed into capital goods production, and in other related lines of activity. The contraction of a branch of industry that for some reason has acquired a capacity to produce beyond its present demand is generally a difficult and painful operation. It will not be possible to avoid a very great amount of that sort of readjustment in the first decade or two after the war. (The greatest problems of structural readjustment may not by any means come at the time of military demobilisation; many of them may come to a head only several years later.) Therefore, if there is a chance to stimulate a constructive, continuing peacetime demand for products to which war-expanded industries can most readily convert, and to absorb in constructive ways part of the stepped-up output of raw material producers, the advantage in doing so is obvious. A post-war programme of economic development would offer such an opportunity. Developmental investment would thereby help to forestall knotty problems of excess capacity and to lessen the severity of

price collapses when they come in various industries. In doing so it would lessen the pressures for restrictions on output and for nationalistic protectionism.

Capital Goods Industries

In all the advanced industrial countries the wartime production effort has meant a decrease in the output of many civilian consumers' goods and a vast shift of workers and capital into the production of metals, machinery, motors, vehicles, aircraft, chemicals, ships, and communication devices. The new plants which have been hurriedly erected, the reconversion of old plants, the wartime training of workers in new skills, have especially increased the capacity to produce heavy, durable goods or the materials from which they are made. In other words, the war has especially expanded the capital goods industries.[1]

We may take a few examples almost at random. Machine tool output in the United States in 1942 was about 15 times as large as in the average year of the pre-war decade.[2] A machine tool industry has developed in Australia since 1939 and now supplies many of the needs of Australian factories, which are today making a wide variety of mechanisms, such as arms, motor vehicles, ships, aircraft and tanks.[3] The metal-working industries in Great Britain, the United States, Russia, Germany, Japan, Canada and in many other countries have been greatly expanded in order to increase the output of engines and bodies for aircraft, tanks and trucks.[4] Steel-making capacity is greater. Aluminium capacity all over the world has shot upward. Everywhere the metal and metal working

[1] In the United States, the war production effort has involved the greatest increases in manufacturing plant and equipment ever undertaken in that country. During the three years from the latter part of 1940 to the end of 1943 the amount expended on war plant expansion was roughly half the investment made in manufacturing facilities during the 'twenties and 'thirties; in other words, it equalled the industrial growth that might have taken a decade. But the greatest expansions have not taken place in the same industries that might have expanded most in peacetime. The amount of wartime investment from June 1940 to November 1942 was largest in the following fields, in order of rank: aircraft, engines, and parts; explosives; shipbuilding; iron and steel and products; chemicals, non-ferrous metals and products; ammunition, shells, bombs, etc.; guns; machinery and electrical equipment; petroleum and coal products; combat and motorised vehicles; machine tools. Not directly indicated by investment figures, but of equal if not greater importance in the shift of industrial structure brought about for war production purposes, are changes affecting workers, transportation facilities, power and other utilities, and community arrangements. "Some war plants have required the development of entire new communities, which face the danger of becoming ghost towns unless some substitute activity can be provided." (Glenn E. McLaughlin: "Wartime Expansion in Industrial Capacities", in *American Economic Review Supplement*, Mar. 1943, pp. 108-18.)

[2] *Victory*, 22 Dec. 1942, Vol. 3, No. 51, p. 9.

[3] *Economist* (London), 7 Feb. 1942, pp. 177-8.

[4] For specific items of information on this expansion, see League of Nations: *World Economic Survey, 1941/42*, pp. 34, 46, 86, 87.

industries, in particular, have been stimulated by the war, and these are the industries that in peacetime are most closely related to the production of capital goods.

It appears, therefore, that some of the most acute problems of excess capacity are likely to manifest themselves in just those industries that could turn out machines, ships, locomotives, electrical equipment, bridges and tractors, and in the industries that feed basic materials to them, such as steel, copper, aluminium, rubber and fibres. If the demand for such goods can be kept high, that will directly lessen the severity of the readjustments necessary in the advanced industrial countries. Furthermore, if the demand for capital goods can be sustained by methods that at the same time expand the world's future capacity to produce and consume all kinds of goods, that is an additional permanent gain. Such favourable effects are precisely the ones that might be expected from a vigorous world development policy which would equip the countries in greatest need of development by means of capital goods that the advanced industrial countries will be prepared to produce in huge quantities after the war.[1]

It hardly needs to be added that, of course, no programme of world development can remove the necessity for drastic readjustment in war-oriented industries after the war. What a vigorous effort of world development could do is to help make the problem somewhat easier and its solution more constructive.

One objection needs to be examined. It might be argued that from the long-term point of view it is undesirable to sustain the demand for capital goods in the advanced industrial countries, because a high proportion of capital goods production to total production makes an economy less stable. The capital goods industries are, of course, just the ones that are most subject to violent booms

[1] A recent report of the Delegation on Economic Depressions set up by the League of Nations observes that:

> Excess plant, whether due to expansion to meet military needs or to expansion to meet civilian needs in areas cut off from their former sources of supply, constituted one of the gravest causes of economic instability after the last war; it will without doubt constitute a grave difficulty after this war.
>
> But the expansion of the metal, the engineering and above all the machine tool industries during the war should in general prove an asset and not a liability, an asset the value of which will be determined by the policies pursued. These industries form the foundation of the whole industrial system and the strengthening of that basis should greatly facilitate the development of industry throughout the world, just as the acquisition of new skills by labour should facilitate the growth of new industries and the development of old. The war has enormously increased the number of persons in all parts of the world who have acquired a mechanical sense. For this new basic plant, as for these new skills to render the services of which they are capable, however, a high rate of investment will have to be maintained. There will lie the crucial problem. (*The Transition from War to Peace Economy* (1943. II. A. 3), pp. 33-34.)

and depressions. A high proportion of capital goods exports in a country's foreign commerce—the stage in industrial evolution reached by Germany and England, for example, in the inter-war period—has been characterised as "a form of trade peculiarly sensitive to economic fluctuations".[1] Might it not be better, therefore, to suffer the pains of more violent contraction in these industries after the war and get back to a lower ratio of capital goods output as soon as possible?

The most compelling answer to this argument is the practical fact that there will be trouble enough in achieving industrial balance after the war, even if demand for capital goods is sustained to a considerable extent by world development projects. In view of the institutional rigidities of modern capitalistic economies, great structural readjustments are very costly and disturbing at best. The future gain in stability would be quite uncertain. Deliberately to forego a constructive programme that would ease the problems of the advanced industrial countries and also help the countries in need of development, would hardly be wise. Indeed, to undertake greater adjustments than are necessary, all for the sake of being better prepared to ride out future economic storms, might be to help bring on the very storms that are feared. If fewer men and less capital have to be forced out of the capital goods industries there will, in this important sector of the advanced economies, be less pressure on wages and profits, fewer strikes and lockouts, and more time in which to make inevitable readjustments gradually. Economic stability is a very important objective, but there are other and better ways of seeking it than by deliberately sacrificing the trained men and the installed equipment which could make railroad cars, river boats, trucks, telephone cables, laboratory apparatus and electric motors for an expanding world economy.

There are other considerations. Suppose that Great Britain, for example, were to try to find alternative employment outside the capital goods industries for a large proportion of the workers and funds that will be in these industries after the war. Where would the excess metal workers, among others, look for new jobs?

Under a world development programme some of them might be making bridges and rolling stock and communication systems and printing presses for the Balkans, China and South America. If such employment were not available there would certainly be a temptation to restrict imports into Great Britain and to subsidise British agriculture more heavily. This would lessen the opportunities of overseas producers to sell their agricultural and other

[1] LEAGUE OF NATIONS: *Commercial Policy in the Inter-War Period* (1942. II. A. 6), p. 125.

products in Great Britain. If this policy put the metal workers into jobs it would do so at the sacrifice of their most productive skills. On the other hand, a high volume of international trade in capital goods, stimulated by great investment activity in the countries where equipment is needed, would permit the British metal workers to continue where they can earn the highest wages and would permit the overseas producers of agricultural products and other British imports to enjoy a better market. The same applies to other advanced industrial countries.

Agricultural and Raw Material Industries

There will also be severe structural maladjustments after the war in some of the industries producing primary materials. To meet war demands, new facilities for the production of copper, aluminium, sugar and many other raw commodities have been opened, or old facilities have been expanded. Japanese conquest of the world's rubber-producing region has led to feverish activity in the United States for the building of synthetic rubber plants. In Latin America the output of natural rubber is being stepped up. Germany and the other Axis countries are trying to compensate for the effects of the blockade by developing domestic raw material sources to the maximum and by finding substitutes for commodities that they would import in peacetime. Furthermore, the war has stimulated numerous technological innovations, which will have the effect, now or later, of increasing the output of many raw materials and lowering their cost. When hostilities have ceased, agricultural and mining areas that are temporarily out of production because of military operations and regions now more or less isolated by blockade or lack of shipping will begin to offer their supplies once more. In the meantime, war expansion in other countries may have duplicated their facilities.

The improvements in production techniques and lowering of costs in many raw material industries in the two decades following the First World War have been described by one writer under the title "A Raw Commodity Revolution".[1] These factors provoked a downward trend in most raw material prices after the middle 'twenties. Unmarketable surpluses and excess capacity plagued many agricultural and other raw material industries even before the onset of the great depression. Some of the results of these developments were "to demoralise prices for raw commodities and the manifold products into which they enter, to upset national finances

[1] Melvin T. Copeland: *A Raw Commodity Revolution*, Business Research Studies, No. 19 (Harvard University, Graduate School of Business Administration, Mar. 1938).

and foreign exchange, and to cause social and political unrest throughout the world". When a general economic crisis arrived, "the raw commodity situation helped to turn the business slump which began in 1929 into a major economic disaster".[1]

There is every reason to expect that similar problems of structural unbalance will confront the world's agricultural and raw material producers after this world war. Some of the surplus situations will be no less acute. Experience shows that the demand for most raw materials is relatively insensitive to decreases in price, so that an output larger than the market will take at current prices may lead to a drop in price so violent as to prove ruinous even for efficient producers. Nevertheless, experience shows that it is very difficult to induce agricultural and raw material producers to leave their industries. Often they have not the capital or the knowledge to try alternative products, or they are held by social ties or habit. Thus, structural maladjustments in the form of overcapacity, in particular raw material industries, may persist for years.

An expansion in the world demand for industrial equipment, such as might be brought about by a series of international development programmes on a considerable scale, would undoubtedly help to ease the post-war difficulties of structural readjustment in the raw material industries by taking up some of the slack between peacetime raw material demand and available supply. It would do this indirectly by helping to maintain a high level of employment and consumption and directly by promoting the use of more capital equipment to be used in new installations.

There is a further effect of economic development, especially industrial development in areas hitherto devoted almost exclusively to agriculture and extractive industries, which would help raw material producers in the long run. Industrial development in such areas as south-eastern Europe, China, India and Latin America would mean greater diversification of industry over the world. As areas that had been exclusively sellers of raw materials on the world market became areas of diversified industry the supply of industrial goods and the demand for raw materials would increase. Raw material prices, in general, would tend to rise relatively to the prices of other goods and services. That is, the "terms of trade" of raw materials in relation to other things would improve.

This shift would also help, in the long run, to prevent chronic tendencies to disequilibrium in international trade and balances of payments like those which have arisen out of the weak and precarious earning power in international markets of the "raw material countries". Greater diversification of their economies as a result

[1] *Ibid.*, pp. 1, 25.

of the measure of industrialisation which is normally a part of economic development would likewise make their international financial positions more stable. Expansion of industries in the less developed countries, accompanied by large-scale investment from abroad, has frequently been referred to in recent economic discussion as an important means of promoting better equilibrium in international economic relationships generally, making success more probable in efforts to stabilise currencies and to forestall pressures that lead to restrictive trade and exchange controls.

CHAPTER III

INCOME DISTRIBUTION AND THE TRANSFER PROBLEM IN REPAYMENT

The International Distribution of Wealth and Income

In the countries that would be the natural sources of investment funds, proposals for international economic development are sometimes stigmatised as "share the wealth" ideas or invitations to "play Santa Claus". The implication is that a country providing capital funds is depriving itself of wealth for the benefit of the area where the capital is used.

This discussion does not concern gifts advanced to rescue victims of war from starvation and disease and to set them once more on the road to self-support. It may be assumed that such gifts will be made in considerable amounts by the more fortunate peoples who have suffered less from the war. The benefits expected by the givers will not be repayment in coin or goods, but they will nevertheless be real benefits—the satisfaction which comes from an act of sympathy and kindness, the military advantage of stabilising the civilian situation in the rear of our advancing armies, the political advantage of laying the basis for a more durable peace and the economic advantage of reviving production and trade as rapidly as possible and—at a certain stage and for certain commodities—finding a good use for surplus stocks or surplus production capacity.

A long-range programme of national and international economic development is a different matter. There is no reason why capital advanced for sound developmental purposes should be a free gift and no one expects that it will be. The capital, if wisely invested, increases the capacity of the borrower to produce. Out of this increased productivity the loan and interest charges can be repaid.[1] It is a case of mutual benefit. An investment banker who lends $10,000 to a manufacturer for improvement of his plant on the understanding that the $10,000 will be repaid out of earnings over

[1] Assuming that the creditor countries follow reasonable trade policies. It must be possible for debtor countries to sell goods abroad; otherwise they cannot earn the foreign exchange with which to pay external debts.

a period of years, with reasonable interest, is not a Santa Claus. Nor is he an exploiter. The same is true of an advanced industrial economy with a high rate of savings which makes funds available out of those savings for sound developmental loans in areas where capital is scarce, on the understanding that these loans will be repaid with reasonable interest. In fact the same banker may actually make the loan in the latter case as in the former, the difference being that the borrower is in a neighbouring country.

The indirect benefits of a sound world developmental programme, some of which have been mentioned already, are so important to the advanced industrial countries as to make it distinctly in their interest to foster such a programme. In doing so they would be well advised to make capital available on very good terms and even at quite low rates of interest. But there is no reason why they should forego the usual contract for repayment of funds advanced or why the contracts for repayment should not be fulfilled without an excessive percentage of default. Indeed, the advanced industrial countries which would be the lenders have largely within their own power the means of controlling many of the factors which determine whether international loans will be generally defaulted or generally repaid—namely, those relating to security against recurring war, to world economic stability, which depends very directly not only on the international policies of the great advanced countries but on the extent to which they stabilise their own business and employment, and to the functioning of the world trading system in a manner which permits debtor countries to earn the means of repayment by selling their export goods.

A programme of international investment for the development of some areas of the world with capital supplied from other areas is not, therefore, a programme for "sharing the wealth" by unrequited generosity on the part of peoples with more abundant savings. If the economy of the lending country gives up some of its wealth temporarily as a loan to the economy of the borrowing country, it does so on a sound promise and prospect of receiving it back, plus interest, later.

But there is a further point which puts a still more favourable aspect on developmental loan transactions from the point of view of the lending countries. So far we have been speaking as though the lending economy would actually sacrifice some of its wealth, temporarily, receiving it back with interest at a future date. In the static type of analysis which economists used to apply to such problems it was always assumed that Economy A in supplying capital to Economy B must temporarily reduce its own supply of capital, or its consumption, by that much. Capital, in this connec-

tion as in others, represented "abstinence" on the part of somebody. We now know that this is not necessarily true. The more dynamic modern type of economic analysis explains why. The capital export is additional investment for the lending country. Under certain conditions—namely, when there is less than full employment in the lending country—the stimulus thereby provided to its economy may result in an increased total production. Indeed, production may well increase by more than the amount of the investment. This would be particularly likely if the capital goods industries and their raw material suppliers had a great amount of unemployment.[1] Under such conditions, and if the domestic means actually available for stimulating investment and employment were for one reason or another somewhat less than adequate[2], then the lending country might invest abroad without even temporarily reducing the amount of real wealth and income available at home. In fact, by the very act of investing abroad the lending country might have more at home, so that there would be a net gain even if no repayment were ever received. This is a real possibility under the conditions that may exist a few years after the end of the war. On the other hand, if a considerable capital export took place under boom conditions, where substantially full employment already existed, the cost to the lending country might be more than the amount of the loans—for the additional investment stimulus might contribute to a dangerous inflationary tendency. We shall return to these points in later chapters, where methods will be suggested for influencing the timing of international developmental investment in order to maximise advantages and minimise disadvantages for all parties concerned.

The effect of international developmental investment on the countries where the development takes place is, quite obviously, favourable to the increase of their wealth and income. These countries will be those in which economic progress is held back, not by a tendency of savings to exceed investment, but by a scarcity of savings available for improving the capital equipment of the area.

[1] It is assumed that the export of capital for developmental purposes would probably be accompanied or followed by increased orders for capital goods. Of course, capital exports can take place without the export of capital goods. The "real transfer" from the lending country may take place through an increase in the export of consumers' goods and services or a decrease in imports of goods and services. But loans of capital made in connection with a world development programme would surely increase the world demand for capital goods and a large part of that increased demand would be felt by the capital goods industries of the advanced industrial countries, which would also be the lending countries. In some cases, the capital loans might be tied directly to capital goods exports, as when specific capital goods are sent abroad on credit.

[2] On the practical merits of the argument sometimes made that it is always possible to get full employment by increasing purely domestic investment, see Chapter VII.

The importation of capital from abroad will make possible better equipment, more production per worker and higher living standards.

One more point, and a very important one, remains to be added to this analysis of the effects on the international distribution of wealth and income which may be expected to result from developmental investment. Capital for developmental purposes will be accompanied on its migration to the underdeveloped areas of the world by technical knowledge, in the form of engineering advice, instruction of local people in the operation of machinery, and—if the developmental authorities are wise—assistance in carrying through broad, basic educational programmes among the people of the area. The knowledge which flows with capital into less developed areas in this way is itself a very powerful means of raising productivity and living standards. The "export of knowledge", however, costs the countries which supply it very little, for knowledge is something of which the stock is not depleted in the process of passing it on to others.

> Knowledge, together with the productive arts based upon it, is the most potent of all the resources we have for improving the economic lot of mankind. It is a most peculiar resource in that it can be added to one region without subtracting it from any other. Indeed, the more widespread knowledge becomes the more rapidly it grows, for it increases by being applied under new circumstances and by the cross-fertilisation of ideas passing back and forth among many minds. Its potency as a factor of production has been shown in recent decades by the phenomenal rise in the industrial output first of Japan and then of the Soviet Union. Both countries have imported some capital, to be sure, but in relatively small quantities. Their main borrowings from abroad have been imports of knowledge and technique.[1]

To sum up, it is clear that sound developmental loans subsequently repaid out of increased productivity increase the wealth and income of the countries under development. As for the effect on the capital-providing areas, the developmental investment certainly does not cause a permanent decrease in the wealth and income of the lending countries and may not even decrease temporarily the amount available for their use at home. In fact, under the conditions of the post-war epoch, the process of sending capital abroad for investment may even increase the amount of income left over for domestic consumption or investment, because of the stimulus that investment gives to employment and production.[2] The chief disadvantage which might arise for the lending countries

[1] Eugene STALEY: *World Economy in Transition* (New York, Council on Foreign Relations, 1939), p. 279.

[2] Again, reference is made to Chapter VII for consideration of the argument that full employment can be assured just as well by purely domestic investment.

would appear in case of boom conditions at home. An inflationary situation might be aggravated by large-scale developmental investment abroad undertaken just at that time. This suggests that attention to the timing of developmental operations is important.

Thus, it may truly be said that developmental investment in the less well-equipped regions of the world is a method of levelling income and living standards *upward*. By supplying capital and technical knowledge, under soundly conceived plans, the countries of advanced industrialism can help to raise the incomes and living standards of other countries, not only without lowering their own incomes and living standards, but with positive economic benefit to themselves. There is no taking from one and giving to another, but mutual gain.

The Internal Distribution of Wealth and Income

What effects will international developmental investment have on the distribution of wealth and income *within* the countries that supply capital? The older static type of economic analysis would have said that export of capital temporarily reduces the amount of capital per worker in the lending countries. Therefore, runs the argument, it must tend to make interest rates higher and wages lower. Even when the capital is eventually repaid with interest, the interest earnings go to the investor class. The national income is thereby increased (because the capital presumably earns a higher rate of return abroad than it could have earned at home) but the distribution of that income is altered in a way unfavourable to labour.

Even in terms of the static type of analysis this is not the whole story. Indirect gains resulting from the productive investment of capital abroad, such as cheaper food supply for working people, will diffuse themselves among all classes in the capital-exporting countries. This is quite likely to counterbalance any tendency of capital export to lessen labour's share in total income.[1]

However, there is an even more important reason why the static type of analysis outlined above leads to wrong conclusions. It ignores the relation of investment to the volume of employment. Reasoning which assumes that because investment is made abroad there will be less capital for use at home is very likely to be incorrect. Increased investment, as has been explained earlier in this study, raises the level of output, if there is less than full employment. The interest of workers in maintaining employment, production and income at high levels far overshadows their interest in the

[1] Cf. Jacob Viner: "Political Aspects of International Finance", in *Journal of Business of the University of Chicago*, Vol. I, Apr. 1928, pp. 148-9.

theoretical share of income going to labour as compared with that going to capital. If the size of the income "pie" to be divided can be made large, there will be adequate methods available to labour in these days of collective bargaining by which to make sure that it gets a fair slice. Developmental investments help to raise employment and income, and that is the main consideration.

The Transfer Problem in Repayment

Developmental investment is ordinarily rated successful if it increases production by an amount more than ample to pay interest and amortisation on the original capital. However, international loans as a rule have to be repaid, not in the currency of the country where the increased production takes place, but in some foreign currency, usually the currency of the lender. It may thus occur that a borrower who has ample earnings in, for example, pesos, may still find great difficulty in transferring those pesos into a foreign currency, such as dollars, in order to meet service charges on a loan. The debtor area may not succeed in marketing enough of its products abroad to earn the amount of foreign money needed to pay for its current imports and to provide extra cash for meeting payments on its external debt. When this happens, the so-called "transfer problem" arises. The soundness of international developmental investment, from the point of view of repayment, therefore depends not only on an increase of productivity in the borrowing area but also on its ability to earn the currency of the creditor country, or some other foreign exchange acceptable to the creditor.

The ability of a borrowing area to acquire the foreign exchange needed for external debt payment depends partly upon circumstances outside its own control, including the economic situation in the world at large and the trade policies of the creditor countries. Dollars may be scarce because of a depression in the United States, which sharply reduces American purchases abroad and thus reduces the supply of dollars available for the purchase of goods and the payment of dollar debts. Or the United States and other creditor countries may use tariffs and quotas to hold their imports at a low level, thus preventing debtor areas from earning an adequate supply of foreign currency with which to make repayments. The world is all too familiar with the serious strain imposed on international financial and trading mechanisms when creditor regions refuse for one reason or another to accept the goods and services which are the real means of repaying loans. Supposing, however, that economic conditions abroad

are stable and that creditor countries adopt trade policies appropriate to their creditor positions, the solvency of the debtor country on international account will also depend on the wisdom of its own policy and on the wisdom with which the developmental operations are planned.[1]

An international loan is financially sound if it (1) increases the fundamental capacity of the debtor country to produce goods and services, and to produce them in excess of its current consumption; and (2) increases the capacity of the debtor country to earn more foreign exchange by export than it needs to balance current imports, thus creating a margin for debt payment. With reasonable foresight and co-operation, large-scale developmental investment which meets these tests should be possible, assuming always that the leading countries will pursue policies appropriate to preventing disastrous depressions and wars. As was pointed out in Chapter I, the rising trend of world productivity fostered by developmental undertakings and by the progress of technology has a tendency to lessen the size of repayments in relation to current levels of income and of international trade. Expansion of international tourist traffic, under the influence of aviation and the advertising of far places provided by this global war, may also make it easier for some developing countries to earn the currencies of the creditor nations.

Acute transfer problems are most likely to arise in connection with large financial indemnities, in connection with debts between allies resulting from war supply transactions or in connection with debts imposed as a charge for relief and rehabilitation aid which rescues people and repairs damage but does not increase the fundamental capacity of the recipient area to produce goods beyond current needs and to earn foreign exchange by export. Where an investment does raise productivity and does increase the international earning capacity of the debtor country, the transfer problem is manageable, given a tolerably sound economic environment.

If economic and political stability can be maintained, the principal of many individual investments and of international investment in the aggregate in the developing countries is likely to be left intact for an indefinitely long period. The investors as a group will not wish to withdraw the capital sum, preferring a regular flow of interest and dividends. Particular loans will, of course, mature and be paid off, and particular owners of securities

[1] See on this point J. J. POLAK: "Balance of Payments Problems of Countries Reconstructing with the Help of Foreign Loans", in *Quarterly Journal of Economics*, Feb. 1943, pp. 208-40.

will liquidate their holdings by selling them to others. But the creditor countries will continue to maintain or increase their total international investments.

Under such conditions there would be no sudden reversal in the direction of capital movements to impose a brusque strain on the exchanges. The return flow of interest and dividends would build up eventually to a size which would overbalance the new capital flowing out, but that would be a gradual turning and would give time for trading relationships to shift so that the creditor countries, now becoming "rentiers", could gradually become net importers of goods and services, as would be appropriate to their position. This is the evolution that Great Britain went through earlier, until all "normal" economic adjustments were swamped in cataclysmic wars and depression. If we contrive to get a stable world, such a course of evolution would again be normal. If, on the other hand, there are more cataclysmic wars and depressions, the transfer problem will go unsolved (as will most other economic problems) and the pressure of large-scale international debts on the exchanges will again contribute to currency disorders, trade restrictions, and defaults.

Even if the world avoids wars and depressions of the cataclysmic sort its success in attaining political and economic stability is likely to be much less complete than we should wish. There will be shocks to meet, and there will be inflexibilities in the functioning of economic systems. Difficulties arising out of a rigid mass of international obligations for debt payment could help to turn a setback into a major catastrophe. Therefore, it is important that conscious thought be given at the time investment programmes are put on foot to the means by which sudden strains on the balances of payments of the developing countries can be prevented and to the means by which the building up of timely export balances on their part (and import balances on the part of the creditors) can be assisted. The following points deserve consideration.

First, sudden suspensions or reversals in the flow of capital funds after economies have become adjusted to a certain direction of flow can be disastrous. Investments that might have been sound become unsound. The outward movement of capital from the United States in the 1920's was erratic, rising to a peak in the first half of 1928 and falling abruptly thereafter in response to the counter-attraction of the stock-market boom. This is one of the factors generally cited in explaining the world economic crisis that followed. As the depression got under way, capital flowed back towards the United States in the form of contractual repayments, while new loans ceased. A fundamental requirement of

sound lending policy is, as a recent American official study points out, "that investment programmes be formulated on a comprehensive and long-range basis and be executed at a reasonably regular rate . . . "[1] Under post-war conditions, governments will undoubtedly have to assume some of the responsibility if this requirement is to be met; the guiding and stabilising influence that could be exerted by a strong international public agency for assisting in the planning and execution of developmental programmes would be invaluable in this connection.

Second, developmental programmes will be more sound if attention is given in their planning to keeping the total foreign exchange obligations of a developing country low in relation to the reasonably expected increase in its capacity to meet such obligations. Long periods of amortisation and low interest rates for developmental capital are desirable. Projects need to be examined for their probable effects on the long-term export possibilities of the borrowing country as well as on its productive capacity in general. Both for the purpose of minimising difficulties of external payment and also for other reasons, good developmental policies will require that the largest possible amount of technical and educational assistance should accompany any capital funds that go into newly developing regions. The increase of capacity to produce, and to earn means of international payment, will thereby be kept at a maximum in relation to the size of the debt.

Third, it is desirable to have some flexibility in contracts of repayment. The rigid, bond type of contract which sets fixed obligations in foreign currency may lead to forcing of exports on falling markets, restriction of imports, currency disorders, and defaults. "The danger of saddling a large burden of inflexible obligations on an unstable international economic and financial system was amply demonstrated in the depression period."[2] Equity investments, in which the investor's return varies with the earnings of the enterprise, or some form of income debenture in which payment obligations likewise fluctuate with business results, would avoid these difficulties to a considerable extent. In time of sharp depression affecting the export possibilities of a newly developing country the earnings of foreign equity investments would probably also drop, and the demand for foreign exchange with which to pay out dividends would decline, thus preventing some of the conse-

[1] Hal B. LARY and associates: *The United States in the World Economy: The International Transactions of the United States during the Interwar Period* (International Economics and Statistics Unit, Bureau of Foreign and Domestic Commerce, U. S. Department of Commerce, Washington, 1943), pp. 19, 99-100.

[2] *Ibid.*, p. 106. See also, on advantages of direct investments and investments of an equity character, pp. 20, 104.

quences associated with the bond form of external debt. Some of the most promising future opportunities for private international capital investment, and among the soundest from the point of view of lending and borrowing countries alike, would appear to be in the field of direct investment—that is, investment involving participation in management, perhaps in association with nationals of the borrowing country. The returns on direct investment are ordinarily of an equity character and would fluctuate with business conditions instead of being an inflexible burden on the foreign exchange earning capacity of a developing country.

Another method of providing flexibility in repayment contracts would be to distinguish two parts of the payment obligation: (1) payment in the borrower's local currency; and (2) transfer of this payment abroad, making it available in the currency of the creditor or some other foreign currency. The first part of the obligation might be expressed as a fixed annual amount, or the amount might be made to depend on the profitability of the undertaking, or on some index of general economic conditions in the borrowing country. The second part of the obligation—transfer abroad—could be made to vary in some agreed manner in accordance with changes in the international economic situation confronting the paying country. Thus, the foreign payment obligation might be linked to an export price index (if the country's foreign earnings depend largely on the market for a few raw materials), or to an index of world trade activity, or to an index of the "supply of dollars" and the supply of other important creditor currencies (that is, the amount spent by the creditor countries for imports of goods and services or lent abroad, and thereby made available to other countries for purchase of their goods and for debt payments to them). The last would perhaps be preferable, for it would bring home to the creditor countries the fact that in the final analysis they cannot collect on debts except by taking goods and services.

Fourth, the external payment problem will be immensely eased if the principal creditor countries take measures within their own economies: (1) to keep business activity and employment at a high, sustained level, and (2) to facilitate mobility in the transfer of workers and capital from less promising lines of production, and especially those lines in which imports can be had more cheaply than domestic production, into the more promising lines that ought to expand as income rises at home and abroad.[1] Both would help to bring an increased flow of imports of goods and services, which is normally associated with repayment. A long-term rise in

[1] This second point will be dealt with in considerable detail in Part II, especially Chapters X and XI.

the rate of consumption (a fall in the rate of saving) within the industrially advanced, creditor countries would make it easier for them to maintain a high level of employment while increasing the size of their imports in relation to their exports. They would thereby adjust themselves to consume the increased incomes to which they would be entitled by reason of past investments. That adjustment seems quite feasible over a long period of years, by the time a net return flow of interest and repayment on developmental capital begins, even though, as was indicated earlier, it can hardly be counted on to sustain employment in the first decade or two after the war.

CHAPTER IV

THE ORDER OF MAGNITUDE OF THESE EFFECTS

So much for the nature of the investment effects connected with international economic development. But what may be the magnitude of these effects? Will they be important to the economies of the more advanced industrial countries, or will they be insignificant in relation to the huge normal volumes of savings and investment in these countries? No-one can answer such questions with any assurance. Proper answers will depend upon unknown factors that the future alone can reveal, including the amount of vigour, determination and co-operation that may be forthcoming in support of a world development programme. Hence the following observations are tentative.

Rate of Capital Development in Asia

A recent study by a Chinese economist reached the conclusion that *modern industrial capital* in China in 1937 could be valued at roughly 3,800 million Chinese dollars.[1] Converted into American dollars this represents not much more than a thousand million dollars' worth of modern capital equipment in a country inhabited by 400-450 million people, or less than $2.50 per capita. The same study points out that in the United States $430 per capita was invested in manufacturing industries alone in 1930, not including the large amounts of capital equipment in transportation, mining, agriculture and commerce, almost all of which is "modern".

There is no reason to doubt that the people of China and of other underdeveloped areas are ultimately capable of operating the machines of industrial society as effectively as the peoples that are today more industrialised. If this view is accepted and for the moment the time factor is disregarded, the total amount of capital which would have to be put to work by the peoples of Asia and of other underdeveloped regions in order to raise their economies to the productive level already attained in the better equipped parts

[1] Tso-fan Koh: "Capital Stock in China", in *Problems of Economic Reconstruction in China* (China Council Paper No. 2, Institute of Pacific Relations, Eighth Conference at Mont Tremblant, Dec. 1942, mimeographed).

of the world is staggering to the imagination. In Asia alone there are more than one thousand million people, half the population of the world. For the most part they work with pre-industrial tools and possess almost negligible quantities of agricultural machinery, railroads and motor roads, locomotives and trucks, manufacturing and mining installations.

Yet the rate at which modern equipment can be installed and therefore the amount of capital funds which can be productively employed in economic development during any one year is limited. The main limiting factor may not be the ability and willingness of other areas to lend funds and to supply capital goods. It may be instead the social resistance of the people to changes in habits, for the coming of industrialism imposes drastic changes. The time required to train managerial personnel and to create an industrial labour force out of an agricultural population unacquainted with mechanical techniques will retard the utilisation of modern capital. Industrial development is a *social* process, involving much more than the mere installation of machines. Fundamentally it is educational, organisational and political rather than mechanical. The rate at which new capital can be absorbed is closely related to the rate at which new ideas can be adopted.

The modernisation of Japan has commonly been regarded as a remarkable example of speedy economic development in a country previously quite without any of the methods and appliances of advanced industrial communities. An interesting question, therefore, is how rapidly capital investment might take place in Asia if other Asiatic areas, in the years after this war, were to develop at the same rate in proportion to population and area as Japan developed earlier. Such a calculation is, of course, fraught with all sorts of difficulties, both technical and logical. The results may have a wide margin of error, even within the framework of the assumptions implied by the question. There is no assurance whatever that the rest of Asia will develop at a rate anything like that of Japan, for developments there may be more slow or more rapid. Nevertheless, such a speculation, if too much is not read into it, may have some value as a starting point from which to exercise judgment.

What period of Japan's economic development should be selected as a standard of comparison? There is no satisfactory way of answering that question. It has been assumed below, more or less arbitrarily, that the rest of Asia will stand at the same point in reference to future economic development at the end of this war as Japan stood in 1900. There is some basis for this assumption in the fact that living standards in the late 1930's in the rest of

eastern Asia seem to have been roughly comparable with those of Japan in 1900. If it is argued that an earlier period in Japan's economic development should be taken as the starting point, the answer is that usable data on capital investment in Japan are not available for years earlier than 1896. If, on the other hand, it is thought that development in other areas of Asia (for example, in India) has already gone further than Japanese economic development had gone by 1900 and will progress more rapidly henceforth, the necessary adjustments can be made in the figures below. Second decade figures can be regarded as first decade figures, and so on. In general, the rest of Asia will face many of the same problems in economic development that Japan faced. Most of the Asiatic area is densely populated. Complex and rigid social customs established in a pre-industrial era offer resistance to modern techniques. Although there are great local variations, Asia outside Japan is, on the whole, probably not markedly richer or poorer than was Japan in the resources required by modern industry.

Data which can be used to project Japan's rate of development upon other parts of eastern Asia have been assembled by Mr. Robert W. Tufts and are presented in the Appendix to this chapter. The basic figures, as indicated there, are imperfect and incomplete. They undoubtedly err on the low side. It is with due reservations, therefore, that the results are summarised as follows.

In the first decade after 1900 Japan was adding to its capital equipment at a rate which is roughly indicated by the figure of 78 million dollars a year (at 1936 prices). This should probably be regarded as net rather than gross investment and as an understatement rather than an overstatement. While persons accustomed to thinking in terms of the annual income and investment of such countries as the United States will regard this as an extremely small sum, it was nevertheless equal to 12 per cent. of the Japanese national income at the time. In other words, 78 million dollars worth of new capital investment each year represented a very substantial rate of advance, considering the extremely low level of wealth and income on which the Japanese people existed in 1900. In the decade after 1910 investment in Japan averaged 166 million dollars a year, or 17 per cent. of the annual income at the time. The investment figures rise to 313 million dollars and 354 million dollars in the third and fourth decades after 1900, representing 12 per cent. and 10 per cent. of the current national income in these years. (See table 1.)

On what basis can this rough indication of Japanese capital development be translated into terms that would suggest the investment magnitude of a comparable rate of development in other parts of Asia? China, for example, obviously offers a much larger base

TABLE 1. CAPITAL INVESTMENT IN JAPAN 1900-1936[1]

(in millions of 1936 dollars)

Period	Total	Average per year	Investment as per cent. of national income
1900-09	783	78	12
1910-19	1,658	166	17
1920-29	3,128	313	12
1930-36	2,476	354	10

[1] For sources and methods, see Appendix to this chapter.

for economic development. Should we multiply the Japanese capital investment figures for a given decade by the ratio between Chinese and Japanese population or by the ratio between Chinese and Japanese land area? A combination of the two has been used. As explained in the Appendix, the Japanese investment figures were split into two parts. One part, representing investment in industry and commerce and in local public works, was assumed to be more closely related to population. The other part, representing investment in undertakings connected with agriculture and transportation, was assumed to be more closely related to land area. The figures for the first type of investment for a given decade were multiplied by the ratio between the present population of China and the 1900 population of Japan, and the figures for the second type of investment were multiplied by the ratio between the two land areas. These results were then added to give a weighted average based on both population and area. A similar procedure was used for other parts of Asia. The results are summarised in table 2.

TABLE 2. CAPITAL INVESTMENT IN VARIOUS ASIATIC AREAS, BY DECADES, SUPPOSING RATE OF INVESTMENT WERE TO BE THE SAME IN RELATION TO POPULATION AND AREA AS IN JAPAN IN THE DECADES 1900-1936[1]

(in thousand millions of 1936 dollars)

Country	Population (millions)	Area (thousands of sq kms.)	Investment by decades			
			1st	2nd	3rd	4th
China	450.0	11,103	13.6	23.1	44.9	51.6
India	365.9	4,079	7.2	14.6	27.7	31.4
Neth.E.Indies	68.4	1,904	2.2	3.7	7.2	8.3
Other areas[2]	116.5	2,865	3.5	6.0	11.7	13.3
Total	1,000.8	19,951	26.5	47.4	91.5	104.6
Average investment per year.			2.7	4.7	9.1	10.5

[1] For sources and methods, see Appendix to this chapter.
[2] Burma and British colonies, Thailand, Philippines, French colonies, Japanese colonies.

These calculations would indicate that if the parts of Asia shown in the table develop their economies after the war at a rate which leads them to add capital equipment as rapidly as Japan did after 1900 they might absorb each year during the first decade about 2,700 million dollars' worth of new capital (from all sources, internal and external). In the second decade the rate of new investment might rise to 4,700 million dollars a year, in the third decade to 9,100 million dollars a year and in the fourth decade to 10,500 million dollars a year.

These figures are based on 1936 prices. If allowance were to be made for the higher money costs of capital goods that prevail now and may prevail after the war they would have to be increased.

In the case of Japan, according to a very rough calculation, imports of capital goods amounted to some 40 per cent. of Japanese total investment during the first decade after 1900. The ratio fell in succeeding decades to 36 and 34 per cent.[1] If we assume that foreign countries will supply capital goods to these other areas of Asia in the same proportion to total investment as in Japan, then the economic development of the major part of Asia at the rates indicated would give rise to capital goods orders abroad at the rate of about one thousand million dollars yearly during the first decade (about 550 million dollars' worth from China, and nearly the same from the other areas together). In the second decade of development 1,700 million dollars' worth of foreign capital goods would be purchased yearly, 3,300 million yearly in the third decade, and 3,500 million yearly in the fourth decade. All amounts are in terms of 1936 prices.

It must be emphasised that these figures and the figures in the preceding table are not forecasts, but rather an indication of what would happen under certain assumptions. The reader must use his own judgment in deciding whether China, India, the Netherlands East Indies and other parts of Asia are likely to absorb capital and import capital goods at rates resembling those of Japan after 1900, or at higher rates, or lower ones.[2] Below are some points to be weighed on each side.

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[1] See Appendix to this chapter.

[2] The only other remotely comparable calculation that has been discovered is one made by Colin CLARK in the course of some long-range forecasts on the future of the economic world (*The Economics of 1960*, London, Macmillan, 1942, Chapter VI). He indulges in some statistical speculation about the present size of the capital stock of India, China and the rest of Asia and Oceania (as of 1935-38), and projects ahead to 1960. The difference between the two figures would indicate an increase of 253,000 million "international units" (that is, dollars of 1925-34 purchasing power) in the capital stock of this area by 1960. Such an increase would be about 3 ½ times as great for the first two decades after the war as the total new investment indicated by the comparison with Japan on the

The thesis that actual capital investment in these countries is unlikely to approach the figures indicated within the near future could be supported by arguments based on the social resistances already referred to above. Also, the speed of economic development might be greatly retarded by internal political conflicts in China, by conflicts among religious groups, difficulties of caste and unsettled questions of self-government in India, and by colonial status or the transition form it has reached in some of the other countries.

On the other hand, it is quite possible to argue that the figures in table 2 are not nearly high enough to give a reasonable forecast of economic development in at least some of these countries. It would be interesting to attempt a similar projection based on the rate of development in the Soviet Union, which was probably higher, in the decade following 1928, than the highest rate attained by Japan, even though capital was not drawn from abroad. The economic development of Japan appeared rapid, as viewed by contemporaries, in comparison with the earlier growth of industrialism in Great Britain and in the countries of western Europe and the United States.[1] There would seem to be good reasons for expecting that, other things being equal, the *later* a country embarks on an intensive process of "catching up" to modern industry, the more quickly it would run through the process, once the main political

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assumptions stated in the text above. The figures used by Mr. Clark as a basis for his calculations are open to criticism on the ground that they exaggerate the present capital stock of the area in question, and hence the probable amount of its growth.

Mr. Clark's projections into the future are based on a curve showing the relationship between real income per occupied person and real capital per occupied person in a number of countries at a number of different dates. The lower portion of the curve rests on very few cases and the evidence supporting the estimates in these cases is often quite scanty. The character of the very lowest part of the curve depends to a great extent upon the lowest point, namely, that for China in 1930. Mr. Clark's estimate of the real capital per occupied Chinese is 185 I.U. (that is, 185 dollars of 1925-34 purchasing power). The basis of the estimate is explained as follows: "Professor Buck's *Land Utilisation in China* indicates the average value of farm buildings and homesteads as 584 yuan per farm, or $240 at the rate of exchange then current. This may be put at $100 per occupied person, or allowing for the purchasing power of money in China, about 133 I.U. Making 40 per cent. allowance for capital other than farm buildings (probably generous) this becomes 185 I.U. per occupied person" (*ibid.*, pp. 86-7). This estimate would seem to be very high. It may also be asked whether it is appropriate to fit estimates of farm capital in China to the same curve as estimates of modern industrial capital in countries using very different techniques and social systems, and then to use the curve so constructed as a predictive device.

[1] Whether it was really more rapid than the economic development in these other countries at comparable stages is a question not readily answered. There is room for some very interesting statistical analysis of various aspects of the development of modern industrial economies, with comparisons among them related to different stages of advancement.

The results would be helpful as a starting basis from which to form judgments in quantitative terms when it comes to appraising programmes for future developmental undertakings.

and social obstacles have begun to crumble. The installation of up-to-date railroads, airlines, agricultural machines and factories should take much less time after the step-by-step pioneering has been done elsewhere.

This is especially true if circumstances permit the great international reservoir of technical knowledge, capital equipment and savings to be drawn upon with real effectiveness. The engineering methods of the 1940's, which China can adapt to its purposes, are enormously more productive and flexible than those of 1900 which Japan took over; modern travel makes it easier to send young people to technical schools abroad or to interest foreign specialists in helping to install their techniques and equipment in China; America and Europe turn out a much greater annual product now, and, particularly in view of the wartime expansion of their capital goods industries, can provide better equipment more quickly and in much larger quantities than would have been possible in 1900. Perhaps an effective international institution will be established to mobilise and guide capital and technical aid in promoting the development of new areas; if so, the results could well exceed past experience, for the world has never tried systematic co-operation to this end.

It can also be argued that a number of new social techniques applied to economic development in recent years make it possible to speed up the process considerably. The work of the Tennessee Valley Authority is a pattern for one type of regional programme. A much more highly centralised and completely State-managed type is expressed in the successive five-year plans of the Soviet Union.

For China, in particular, Government leaders are proposing comprehensive plans of development to be begun in the immediate post-war years and to be directed towards long-range goals that will require a generation or more to achieve. A programme put forward by Dr. Wong Wen-hao, Minister of Economic Affairs, calls for the investment of the equivalent of ten thousand million dollars (U.S.) for China's first five-year reconstruction plan after the war. This amount should be invested during the first four years, roughly one third on development of agriculture and water conservancy, one third on industry and mining, and one third on communications. It is estimated that one third of this capital could be raised in China, and that two thirds would have to be obtained abroad. This would indicate a considerably faster rate of capital development for the first decade than the hypothetical figure calculated on the assumptions of table 2 (say 25,000 million in ten years, as compared with 14 on the assumptions represented in the table). It is approximately equal to the rate shown in the table for the second decade of China's development.

The net result of the foregoing considerations, some of which might justify higher and others lower estimates of the probable rate of capital expansion in Asia, would seem to be a demonstration that the real answer will depend on circumstances best labelled "political" in the broadest sense.

The determining factors in the speed of Asia's post-war development are likely to be the *will* to adopt modern methods on the part of the peoples directly concerned and their ability to make that will effective in strong and competent government, together with the *willingness* of the more advanced countries to co-operate effectively, not only in lending capital and technical assistance but also in organising a sound foundation of international security and steady trade.

Other Areas

Well informed authorities on the amount of investment that could reasonably be made in the Latin American countries in the first post-war decade suggest the figure of 5,000 to 6,000 million dollars, of which 3,000 to 3,500 million dollars would come from foreign sources, mainly the United States, and the rest from internal savings. This would be devoted to transportation, communication, power, agriculture and food production, mining and metallurgy, manufacturing industry, colonisation and resettlement. About half the total would go for public service projects, such as transportation, other public utilities, health and sanitation. Of the rest, private capital might be counted on to undertake perhaps a third or a half. Thus as much as three quarters of the total would probably require governmental or intergovernmental auspices or encouragement of some sort.

In an article on "Problems of Industrialisation of Eastern and South-eastern Europe" by P. N. Rosenstein-Rodan[1] the author discusses the amount of capital that would be needed to make effective use, through development of industries, of the agrarian excess population in this area, which he estimates at 20 to 25 million people out of a total population of 100 to 110 million. He advocates a system of large-scale planned industrialisation under which at least half the capital would be supplied internally. Outside lenders and the borrowing area would each acquire 50 per cent. of the shares of a development trust formed of all the industries to be created in the region, and an average dividend of 3 per cent. would be guaranteed by governments on the shares subscribed in their

[1] *Economic Journal*, June-Sept. 1943, pp. 202-11

countries. Shares could also be acquired by contributions in kind, for example, by the establishment of branch factories.

The total investment is estimated on the basis of an average figure of £300 to £350 per head required (including housing, communications and public utilities) to employ one worker in industries of the "light" category combined with a few industries of the "heavier" variety. This, assuming 12 million active workers to be employed, indicates a net investment of £3,000 million, which, allowing for maintenance of old and new capital over a period of ten years, is increased to a gross investment of £4,800 million. Another £1,200 million of capital is said to be necessary for the improvement of agriculture, but it is assumed that the bulk of this will have to be provided internally. After examination of the income of the area and the rate of investment in relation to income which would be necessary if this programme were to be achieved in ten years, the author concludes that at best some 70 to 80 per cent. of it could be financed on the basis suggested. Suppose we take, therefore, 75 per cent. of his figure of £4,800 million. This gives an investment for industrial development of £3,600 million, or, at today's exchange rate of $4.03 to the pound sterling, about 14,500 million dollars, of which half, or about 7,250 million dollars, is assumed to be provided by outside capital. This would represent an investment of foreign capital in the area amounting to 725 million dollars annually, on the average, over a decade.

In some notes on a long-run plan of economic development for Poland, Dr. Leon Baranski has attempted to work out the amount of investment required.[1] His calculations relate to an estimated population of 32 million, about a third of the population in the larger area just discussed. Assuming as an objective that the income of Poland is to be doubled over a period of nineteen years (starting after a three-year period of reconstruction), his figures show total investment rising from 450 million dollars in the first year to 640 million in the tenth year, and to 900 million in the nineteenth year.[2] Internal savings provide half of this in the first year, 70 per cent. in the tenth year, and nearly the entire amount in the nineteenth. This assumes that 7.5, 10.5, and 14.8 per cent., respectively, of the increasing national income in these years is saved and made available for the programme. Starting in the twentieth year, internal savings are assumed to rise above new investment,

[1] "Notes on Poland's Long-Run Economic Plan" (mimeographed). A more general discussion by the same author on economic development over a broader area is contained in his pamphlet *East and Central Europe* (published by New Europe, New York, 1943).

[2] The original zloty figures have been converted at the exchange rate of June 1939, namely, 18.81 cents, and rounded.

providing for gradual repayment of the foreign capital borrowed previously. For the first decade as a whole, Dr. Baranski's figures put total investment at approximately 5,400 million dollars, internal savings at 3,300 million dollars, and capital from abroad at 2,100 million dollars. In other words, he suggests that capital might be loaned from abroad at an average rate of slightly more than 200 million dollars yearly.

The Advanced Countries, and Past International Capital Flows

Are the figures mentioned above in connection with the economic development of various less developed areas large or insignificant by comparison with the amount of annual investment in the advanced industrial countries? Could developmental investments of this order of magnitude have any appreciable effect on the savings-investment balance and hence on the level of economic activity and employment? How do these amounts appear in comparison with past rates of international investment?

Table 3 brings together a number of statistical series which give an idea of the order of magnitude of investment and the use of savings in the United States from 1925 through 1938. A striking feature are the great fluctuations. In the year of peak business

TABLE 3. ESTIMATES OF CAPITAL FORMATION AND EXPENDITURES FOR NEW DURABLE GOODS IN THE UNITED STATES, 1925-1938[1]

(*in thousand million dollars*)

Year	Net capital formation (Kuznets)	Gross capital formation (Kuznets)	Private gross capital formation (Dept of Commerce)	Expenditures for new durable goods (Fed. Res. Bd.)
1925	9 3	17.5	—	23.8
1926	9 2	18 0	—	25.3
1927	8 2	17 0	—	24 6
1928	7 4	16 5	—	24.9
1929	10.0	19.6	17.6	25.5
1930	4 2	13.4	12.1	20 4
1931	0 1	8.4	6 4	14 8
1932	−4 2	3.0	2 3	8.7
1933	−3 6	3 3	3 3	7.6
1934	−2 6	4 9	4.4	10.4
1935	0 7	8 3	6.7	13 0
1936	5 4	13 3	10.0	17.9
1937	6.4	15.3	11.6	20.2
1938	2 9	12 0	7.7	16.6

[1] Adapted from table 5 in "Estimates of National Output, Distributed Income, Consumer Spending, Saving, and Capital Formation", by Marvin Hoffenberg, in *Review of Economic Statistics*, May 1943, p. 143 Detailed explanations of the various series and references to the original sources are given in Mr. Hoffenberg's study.

activity, 1929, gross capital formation approached 20,000 million dollars, and in the fairly prosperous year 1937 it was 15,000 million dollars. At the bottom of the depression, however, there was only 3,000 million dollars of gross investment annually. Net investment, after allowance for depreciation and maintenance of existing capital, was 10,000 million dollars in 1929, fell below zero in the depression years and reached 6,400 million in 1937. Expenditures on durable goods ranged from a high of 25,000 million to a low of 7,600 million.

It is evident that the volume of investment necessary to maintain a high level of employment in the United States runs into very large sums. After the war the necessary volume will be still larger. The amount of net savings in the United States for which investment outlets (internal and external) will have to be found year after year if there is to be approximately full employment has been put at upwards of 12,000 million dollars at 1942 prices.[1]

The London *Economist* estimates that in Great Britain in 1938 about 900 million pounds (4,400 million dollars at 1938 exchange rates) were spent on capital goods. This includes money from savings and from depreciation allowances. But in order to provide full employment in that year an additional expenditure of about 300 million pounds (1,500 million dollars) on capital goods would have been needed, making 1,200 million pounds (5,900 million dollars) in all.[2]

Obviously, any investment figures that can reasonably be talked about in connection with post-war development of the areas of the world where living standards are lowest will not approach in magnitude the huge amounts of savings, investment, and capital goods production in the large advanced countries. The basic reason is that amounts of capital which are huge in relation to the existing capital and the annual incomes of less developed countries—and which would therefore strain their capacity to assimilate—are comparatively small in relation to the much greater capital stock and incomes of the highly developed countries.

Suppose that some years after the war there is an average annual new capital investment to the amount of 3,000 million dollars in Asia, with 2,000 million of it supplied from outside; that the eastern and south-eastern area of Europe is developing to the tune of 1,500 million dollars of new annual investment, 750 million of it from outside; and that Latin America is building up its productive equipment at the rate of 600 million dollars a year, aided by 350 million dollars of capital from abroad. This would mean a total "investment outlet" of slightly more than 3,000 million dollars annually

[1] Alvin H. HANSEN and Guy GREER: "Toward Full Use of Our Resources", in *Fortune*, Nov. 1942, p. 158.

[2] "Full Employment" in *Economist* (London), Jan. 1943, p. 4.

in these three areas for the savings of the advanced countries. That would not come near to equalling the internal domestic savings and the domestic outlets for them of such a great industrial economy as the United States (when it is operating at high capacity). The conclusion is obvious that foreign investment for the equipment of undeveloped areas cannot take the place in the advanced countries of *domestic* measures designed to sustain a high level of economic activity and employment.

However, 3,000 million dollars of net investment stimulus and the sustained demand for capital goods associated with it, or even 1,000 or 2,000 million, would have been felt most gratefully in the United States economy, large as it is, when business was going downhill or struggling to advance out of depression. (Compare the figures on U. S. capital formation in the years 1931-35, table 3.)

Also, the three less developed areas mentioned above are not the only areas in which an international programme to assist economic development would stimulate investment outlets. In fact, for the first decade or so they are not likely to be the greatest fields for investment (see below). In later decades, after their development is well started, they will bulk much larger than they do today in the world's capital calculations.

The effect on the level of business activity and employment in advanced countries would be most appreciable (and appreciated) if international development programmes were planned many years ahead, with the financing also assured for a considerable period in advance, so that the investment stimulus—and the capital goods demand associated with it would be regular, year after year. In years of downward fluctuation at home such a foreign stimulus would be by no means negligible. The effect would be doubly good if the rate at which capital and capital goods flow to the newly developing areas could be *stepped up* in times of threatened or actual depression in the advanced countries.[1]

Some basis for comparing the figures discussed in this chapter with the flow of international investment capital in the past may be useful. Just before the First World War, British investments abroad were increasing at a rate equivalent to some 900 million dollars a year, French at 240-350 million dollars, German at 125 million dollars, and American at 125-150 million dollars. This totals to 1,400 or 1,500 million dollars a year, neglecting capital provided by some of the smaller countries.[2]

[1] This will be discussed much more fully in Chapters VI and VII.

[2] For sources of estimates and other data, see Eugene STALEY: *War and the Private Investor: A Study in the Relations of International Politics and International Private Investment* (Garden City, N. Y., Doubleday, Doran and Company, 1935), pp. 4ff., and Appendix A.

The United States was the largest exporter of capital following the First World War. At the peak of its lending activity in 1928 it sent abroad for long-term investment 1,300 million dollars and nearly 1,000 million in several other years.[1]

Investment capital supplied by other countries was in considerably smaller amounts during this period. International investment almost ceased in the depression, except for erratic movements of capital seeking security. It seems safe to say that the total amount of new international investment has never in the past exceeded 2,000 million dollars a year.

However, it should be remembered that the world's capacity to produce and to invest will be, potentially at least, much greater in the 1940's and 1950's than before the First World War or in the 1920's. Economic operations of many sorts are on an increasing scale. Compare, for example, war expenditures in the Second World War with those in the First. Furthermore, there has never been a comprehensive and systematic programme of international development promoted by governments, in peacetime, so that past standards of comparison might not be applicable if a concerted developmental effort were undertaken.

The Phases of Post-War Investment

It appears likely, for reasons advanced above, that the sums of capital used in developing China, India, south-eastern Europe, and other largely pre-industrial countries will not dominate the world investment scene in the first decade or two after the war. Domestic investments, first of all, in the advanced industrial countries will be on a much larger scale. Even in the field of international investment it is likely that other areas will, at least at first, absorb greater sums of foreign capital.

Probably the largest demands for capital from abroad in the years immediately after the end of hostilities will be from the industrially advanced areas that have been damaged by war action. Capital will be needed for emergency repair and then for reconstruction of cities and their utilities, for putting factories and transportation systems into running order, and to replenish working capital (raw materials and merchandise for factory storerooms and for the shelves of wholesalers and retailers).

[1] The amount was 821 million in 1926 and 987 million in 1927. From 1928 to 1929 came a drop of more than 50 per cent. to 636 million, and a further fall in 1930 to 364 million. There was a net withdrawal of 128 million in 1931 and 251 million in 1932 (Hal B. Lary and associates: *The United States in the World Economy: The International Transactions of the United States during the Interwar Period*, International Economics and Statistics Unit, Bureau of Foreign and Domestic Commerce, U.S. Department of Commerce, Washington, 1943, table I).

The rate of capital investment in this process will not be retarded by the social resistances which are present in areas lacking previous experience of industrialism. The limiting factors will probably be the availability of raw materials and shipping space, the willingness of the countries that have not suffered so severely from the war to extend loans, credits or gifts and the degree of success that can be attained in organising the efforts of rehabilitation and reconstruction so that they may proceed rapidly. A recent study by the Economic, Financial and Transit Department of the League of Nations estimates that continental Europe in the two post-war years 1919 and 1920 imported foodstuffs to the value of 6,300 million dollars, raw materials to the value of 7,200 million and finished goods to the value of 3,900 million, making total imports of 17,400 million dollars. This was paid for currently to the extent of 5,000 million in merchandise exports, 100 million in net gold exports and 5,600 million in "invisible" exports such as shipping services, goods and services sold to foreign armies and to tourists, emigrants' remittances, earnings on investments abroad, etc. The balance of 6,700 million dollars is estimated to have been financed by long-term loans (4,000 million) and short-term credits (2,700 million).[1] It is pure speculation what the corresponding amounts may prove to be after this war, but it can hardly be doubted that the need will be larger.

Apart from rehabilitation and reconstruction in war damaged industrial areas, the largest international flow of capital in the first decade or two after the war may well turn out to be for the further development of countries that already have fairly advanced techniques and are prepared for rapid expansion. This would include the progressive countries of young industrialism, such as Canada, Australia, New Zealand, some of the countries of Latin America and some of the countries of Europe that are industrially less developed. If the Soviet Union desires to borrow outside capital to facilitate rapid repair of war damage and further development of its resources, the amounts involved might be large.

It is also possible that non-developed and sparsely populated areas of the sort found in Africa and the Near East or even in the Arctic and Antarctic may become important investment outlets. The social and political obstacles to rapid development of their natural resources by means of airlines and roads, hydroelectric power stations and mining installations, irrigation systems and railways might be considerably less than those to be expected in densely populated countries at a similarly early stage of development.

[1] LEAGUE OF NATIONS: *Europe's Overseas Needs, 1919-1920, and How They Were Met* (1943), pp. 23, 24, 30.

Given international political and economic stability and a reasonable amount of organised co-operation, the further development of those countries which stand at an intermediate stage of advancement is capable of providing a very considerable investment outlet for the savings of the more advanced areas in the period which follows post-war rehabilitation and reconstruction. At a somewhat later stage, rising gradually to attain very large volume a few decades after the war, the capital demands of the countries of Asia and of other countries where industrial development is still at a low level may very well surpass those of the intermediate countries. Ultimately they could provide much larger investment opportunities. But for some years to come we may find that investment outlets in countries of intermediate industrial advancement (and, of course, domestic investment in advanced industrial countries) will be *quantitatively* more important. At the same time, developmental investment in such areas as China and India is likely to be particularly rich in significance for the future.

B. What Policies Will Yield Greatest Mutual Benefit?

CHAPTER V

THE ADVANTAGES OF MULTILATERAL CO-OPERATION: AN INTERNATIONAL DEVELOPMENT AUTHORITY

The previous chapters have discussed the effects which may be felt in the advanced industrial countries as a result of international investment for economic development. The problem to be considered now is how to get the greatest amount of benefit out of the investment process, both for the countries undergoing development and for the advanced industrial countries.

Capital may move from one region to another or one nation to another in many different forms. Business firms may establish branch factories abroad, install and manage public utility enterprises, operate mines and smelters and otherwise engage in what is called "direct" or "entrepreneurial" investment. Examples are the foreign operations of the great oil companies, of Pan-American Airways and of the International Telephone and Telegraph Company. Governments or business corporations in areas under development may borrow capital by floating securities in one or more of the great capital markets of the world. Before the depression of the 'thirties the stock exchanges in London, New York, Paris and Amsterdam were important channels for this type of international capital flow. Intergovernmental loans may be made for developmental purposes. For example, the Export-Import Bank and various subsidiaries of the Reconstruction Finance Corporation have been used by the United States to supply funds to South American Governments in order to increase the output of strategic materials and to assist in economic development. Government agencies or commercial banks may finance the sale of exports on credit. One of the reasons for creating the Export Credits Guarantee Department of the Board of Trade in Great Britain and the Export-Import Bank in the United States was the desire to assist in providing "medium-term" credits such as are needed in the financing of exports of machines and other capital equipment.

Intergovernmental loans, or borrowing by a government in capital markets abroad, may be organised, facilitated or even guaranteed by an international body. The League of Nations sponsored reconstruction loans of this kind in several instances.

It is not proposed to attempt any detailed analysis here of the various advantages and disadvantages of each of the particular forms of international capital investment mentioned above. All will doubtless have a place to some extent in post-war developmental activities, if conditions of reasonable political and economic stability are established in the world. The point to be stressed in this chapter is that all the various forms of international investment may be expected to yield a higher total of mutual benefits to the capital-lending and capital-borrowing areas if they take place in an environment of continuity and consistency for which the backing of an international organisation devoted to this purpose is needed.

This does not mean that all international investment must be controlled or directed. But basic programmes extending over a considerable number of years would be an enormous advantage in helping to avoid the evils of hit-or-miss fluctuations in international capital flow. Agreements are needed on broad lines of development and on the amount of international support that can be expected, not just for a year or two, but for a longer period. There is need for advance consideration of the general nature of the trade developments required in order to give the international investments a sound prospect of repayment. For these and other purposes it is essential to have an international organisation of some kind on which both the newly developing countries, which are receiving capital and technical knowledge, and the older industrial countries that supply capital and technical knowledge are represented. There are a number of reasons why the establishment of such an agency is important and why it would be best to give it a multilateral, supra-national character. These reasons may be grouped under five general headings.

First, the multilateral form of developmental operation would encourage a more efficient use of world resources. An international development authority would presumably work out arrangements which encouraged multilateral rather than merely bilateral exchange. It would be in a position to join together many scattered sources of savings and many scattered investment outlets. It would provide a disinterested means by which countries in need of technical assistance could arrange for the best such services available, regardless of nationality. By assisting in the planning of co-ordinated regional development programmes it could stimu-

late private initiative and private investment to supplement governmental activities in new areas.

A country which has surplus savings available for investment abroad is not necessarily the best source of the particular capital goods needed for a project where its savings might be used. Nor will countries capable of providing excellent equipment necessarily be able to finance the development projects for which this equipment is needed. A multi-national development programme has the great advantage over bi-national arrangements that it is more likely to take account of such factors. To make the best use of world resources it should be possible to arrange for the construction of a railroad in China, by using, for example, British rails, American locomotives, and German signal equipment, with the financing coming from savings collected in varying proportions in many different countries. If French capital is available only to finance purchases of French equipment, American capital only to finance purchases in America, etc., as is likely to be the tendency if bi-national arrangements are the rule, wasteful restrictions are forced upon the world economy analogous to those imposed by bilateralism in trade. Governmental organisation of international economic relations promises to be more important than ever before when this war is over. That makes it all the more essential, from the point of view of efficient use of world resources, that governments should co-operate in regular, multilateral ways, rather than in merely *ad hoc*, bilateral ways.

A multilateral agency would be in a position to combine many sources of saving into a pool of developmental funds. It could spread the risk of developmental undertakings by offering, or encouraging the offering, of securities based on many different projects, and perhaps, in addition, guaranteed by governments. Thus it could open a channel by which otherwise idle savings might be put to work in improving the productive equipment of the world. In particular, such arrangements might make it possible to utilise the savings of life insurance and other savings institutions which are limited by law to the purchase of securities of the highest grade.

An internationally co-ordinated programme would encourage private enterprises from all over the world to participate with confidence in particular projects for development. It would also enable technical assistance to be drawn from every country rather than from only a few countries which happen to be able to provide large sums of capital.

In the second place, an international development authority would provide a means for taking a longer look ahead and for studying the broad problems that would emerge in connection with

widespread economic development. It would be in a position to propose co-ordinated programmes of action on the important problems of economic adjustment which developmental activities would raise.[1] Even if such problems were apparent to private investors or individual governments, they would in many cases be capable of solution only by concerted effort.

In order to guard against unbalanced development it is very important that there should be some international agency capable of watching the world economic situation as a whole, and regional sections of it. Such an agency should be in a position to point out that current plans of various countries will lead to a world over-capacity in some industries and under-capacity in others, to discourage the making of excessive loans where transfer difficulties might arise in repayment, to call attention to dangers that might threaten as a result of excessive loans on short term, and the like. The agency could also help to co-ordinate the timing and direction of orders for equipment to be used in developmental work (as explained in the next chapter), in order to assist in business cycle stabilisation and to lessen the amount of unemployment in special localities and depressed industries. There is need for co-ordination of investment programmes in order to avoid violent shocks from sudden rises and falls in the international flow of capital. Also, collaboration of a type which can best be organised through a multilateral agency would encourage the sort of mutual arrangements which, as will become more apparent in Part II of this study, are needed in order to lessen the difficulties of transitional adjustment in the economies of the advanced countries as new industries develop elsewhere. For all these reasons an international public body able to take a long view of world economic development and to initiate joint programmes of action is highly desirable.

In the third place, an international authority is needed in order to keep the political conflicts which often develop around international investments at a minimum. A multilateral agency supervising international investment should undertake to assure newly developing countries that outside capital will not become an instrument of "peaceful penetration" and political domination. It should provide an impartial means of regulating the relations between lenders and borrowers when they are citizens of different countries and of adjusting the conflicts that inevitably arise between lending and borrowing areas. It should endeavour to prevent developmental investments from being used by individual States as tools in the game of power politics and balance of power.

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[1] This is discussed in more detail in Part II.

Investment in the less industrialised countries has in the past been more prolific than any other type of investment in providing occasions for political friction, military intervention and rivalry between the great Powers. The investment of capital in such areas is full of conflict-producing potentialities. Many of the potential conflicts derive directly from the economic relationship itself: the debtor-creditor conflict, the labour-capital conflict, the tenant-landlord conflict, the conflict between business competitors, between rival investors seeking the most attractive investment opportunities and between joint creditors of the same doubtfully solvent debtor. Other potential conflicts arise from the clash of pre-industrial with industrial cultures, as when hand workers are displaced by machines or the graves of ancestors are exposed to unfavourable magic by the building of railway lines. Local desires for social reform may clash with vested property interests held abroad. Resentment may arise against real or alleged "foreign domination" connected with the import of capital.

As experience has shown, conflicts between great Powers may come over the control of strategically located railway lines, canals and airways and over the appointment of financial advisers and customs controllers in countries of weak government. Foreign investments have been used by the great Powers in political manoeuvre to prepare the way for annexation, to mark out regional spheres of dominance and to maintain them, to cement alliances and to disguise military penetration. The increasing tendency of national governments to regulate and supervise the foreign investments of their citizens or to undertake direct governmental investment operations abroad increases rather than decreases the danger that capital invested abroad may become a pawn in political conflict. Denationalisation or multi-nationalisation of developmental investment can be accomplished through the medium of a supra-national agency equipped to provide capital without political strings attached. The assistance of an international authority for impartial adjustment of the conflicts bound to trouble the relations of lending and borrowing areas is also needed. The establishment of an organisation to perform such tasks would help to remove political obstacles that might otherwise block any really great expansion of developmental investment in the post-war world.[1]

In the fourth place, a permanent international agency for the supervision of investment relationships is desirable in order to

[1] For much fuller discussion of all these points, see Eugene STALEY: *War and the Private Investor: A Study in the Relations of International Politics and International Private Investment* (Garden City, New York, Doubleday, Doran and Company, 1935). The portion of the book particularly relevant in the present connection is Chapters XIII–XVI, supplemented by some of the case studies.

protect the investors on the one hand and the peoples of the borrowing areas on the other against such abuses as repudiation of contracts, exploitation of local labour and political domination by foreign capital.

Among the obstacles to sound international investment in the years before this war was fear on the part of lenders that their ventures abroad might be exposed to expropriation and default. The system of national diplomatic protection of the rights of investors abroad had broken down. The peoples and governments of areas in need of foreign capital feared, on their side, the political consequences of letting capital in. They also feared that their independence might be jeopardised by economic pressure. Because of these fears, they often imposed restrictive regulations, many of which were highly exasperating to foreign business men and investors. This further discouraged the fruitful use of capital.

There can be little hope of removing these difficulties until the antiquated and unsuitable system of "national diplomatic protection of citizens abroad" is superseded, in so far as investment relationships are concerned, by some system of international supervision and adjustment. Under the system of national diplomatic protection a citizen who feels that his property interests in a foreign country have been unjustly treated may first attempt to get redress from the government of the country. Thereafter, his only recourse is to turn to his own government, which, through its department of foreign affairs, may or may not intercede on his behalf. Experience shows that this is a very ineffective way of adjusting conflicts that arise out of international investment and a still less effective way of preventing them. The defects in the method are many and grave: (1) it places reliance upon a process of judgment and execution by interested parties, a thoroughly discredited method of rendering justice and a method calculated to intensify disputes; (2) it has the effect of enlarging rather than restricting conflicts by enlisting national feelings and staking national prestige on disputes that may originate in private grievances; (3) it entangles justice with *haute politique* and makes it subordinate to political expediency; (4) it induces investors who want vigorous protection from their governments to engage in propaganda of a sort likely to heighten international friction; (5) it provides a readily available pretext for aggressive political penetration by strong States; (6) it induces some countries to adopt policies hostile to foreign capital through fear of penetration: these policies provoke more conflicts and generate more friction; (7) it encourages a legalistic approach to the problems raised by international investment conflicts, an approach which tends to inhibit the conscious

and intelligent consideration of social issues that may be at stake.[1] Progress towards the improvement of this very unsatisfactory system of regulating international investment relationships could best be made under the auspices of an authority multi-national in character.

A fifth group of reasons of a more general character might be added. The maintenance of a durable peace, and hence the attainment of reasonably stable economic welfare, will ultimately depend in large part upon the success of the peoples of the world in building up some sort of responsible and effective world government. Perhaps one of the best ways to hasten the development of world government is to set up a variety of international agencies (ultimately under some general co-ordinating organisation) to perform concrete and important tasks, giving them adequate means to do their jobs. Let the performance of important functions, such as economic development, serve at the same time to build up habits of united action and the prestige and power of quasi-governmental organs at the world level.

All these reasons support the proposals, now advanced in many quarters, for some type of international development authority. One of the most concrete suggestions, covering particularly the financial aspects of the functions for which international organisation is needed in this field, is that published by the United States Treasury.[2]

> The Bank is intended to co-operate with private financial agencies in making long-term capital available for reconstruction and development and to supplement such investment where private agencies are unable to meet fully the legitimate needs for capital for productive purposes. "The Bank would make no loans or investments that could be secured from private investors on reasonable terms. The principal function of the Bank would be to guarantee and to participate in loans made by private investment agencies and to lend directly from its own resources whatever additional capital may be needed." The authorised capital would be about 10,000 million dollars, and shares would be subscribed by member governments according to a formula that would take account of national income and international trade. A substantial part of the subscribed capital would be reserved in the form of unpaid subscriptions as a surety fund for the securities guaranteed by the Bank or issued by it.
>
> The Bank would be empowered to guarantee, participate in, or make loans to any member country and through the government of the country to any of its political subdivisions or to business or industrial enterprises, on certain conditions. The payment of interest and principal must be fully guaranteed by the national government. The borrower must be unable to secure the funds from other sources on reasonable terms. A competent committee must study the project or pro-

[1] For a fuller discussion, see *ibid.*, Chapter XVI.

[2] *Preliminary Draft Outline of a Proposal for a Bank for Reconstruction and Development of the United and Associated Nations* (Washington, U. S. Treasury, 24 Nov. 1943).

gramme and report in writing that the loan would raise the productivity of the borrowing country and that the prospects are favourable to the servicing of the loan. The Bank may also encourage and facilitate international investment in equity securities by obtaining the guarantee of governments for conversion into foreign exchange of the current earnings of such foreign-held investments, and it may participate in such equity investment to a limited extent.

The Bank is to impose no condition upon a loan as to the particular member country in which the proceeds must be spent. In making loans, the Bank shall provide that the local expenses of a project be largely financed from local sources. A member country failing to meet its financial obligations to the Bank may be suspended from membership, and member governments and their agencies agree not to extend financial assistance to that country without approval of the Bank until it has been restored to membership. In the event of an acute exchange stringency the Bank may accept local currency in payment of interest and principal for periods not exceeding three years. The Bank shall scrupulously avoid interference in the political affairs of any country and may operate in any country only with the approval of the government.

This chapter has stated some of the reasons for establishing an international development authority of a broad, multi-national character. This is not the place to discuss details of organisational structure. Perhaps what is needed is not just one such authority, but a number of related institutions: one to regulate and supervise international private and public investment, from the point of view of ensuring reasonableness of contracts and adequate performance; another to provide capital for public developmental authorities, which might be organised on a national or regional basis, and to co-ordinate their activities; and a third to provide some form of pooling of risks in developmental undertakings of private enterprise. Whatever the organisational structure of the international development authority, whether it consists of one organisation with branches and subsidiaries or of several separate but co-operating organisations, it ought to be in a position to carry on the following activities:

1. To launch a world survey of resources and needs, co-ordinating for this purpose similar surveys undertaken on a national basis by national governments.
2. To raise capital by selling its own securities to governments, to savings institutions and to the general public.
3. To advance capital for use on approved projects under conditions to be stipulated by the authority.
4. To act as an intermediary in arranging for supplies of capital from other sources, for technical assistance and for purchases of equipment needed in development.
5. To work out plans for guaranteeing a minimum rate of return on approved developmental projects undertaken by private enterprise, in order to spread risks and encourage venture capital.

6. To propose standard forms of contracts and concessions, and to get the assistance of the International Labour Organisation in preparing codes relating to labour standards which might be incorporated in agreements or be made a condition for obtaining loans.

7. To act as mediator when disputes arise in connection with international developmental investments and to propose preventive measures designed to forestall defaults, violations of contract and the like.

Under the auspices of the international development authority and its related institutions there would be room for many types of developmental enterprise. These would include projects carried through entirely by private enterprise, or by private firms with the aid of financing through some branch of the international authority. They would also include purely governmental operations, undertaken, for example, by the Government of China or of Peru, and financed by the international development authority itself, by credits from another government or group of governments under supervision of the authority, by private capital under supervision of the authority, or by a combination of these. There would also be a place for "mixed" enterprises, in which stock might be owned partly by public bodies and partly by private persons or firms. The important thing is that all these types of investment activity should be guided and encouraged by an agency which is accountable not just to one government or a few governments, but to representatives of all the various peoples concerned.

CHAPTER VI

ANTI-DEPRESSION TIMING AND DIRECTION OF EQUIPMENT ORDERS

The programme proposed in this chapter is designed to enhance still further the mutual benefits that might be expected from properly managed development of the less industrialised areas with the aid of capital funds and equipment supplied by the more advanced industrial countries. In brief, the method suggested would at the same time help to: (1) outfit with modern capital equipment underdeveloped countries like China, India, the Balkans and parts of Latin America, or countries devastated by war; and (2) maintain stable post-war employment in industrially advanced countries. The basic principle is co-ordinated *timing* and *direction* of the equipment orders connected with international developmental investment, in a manner designed to counteract general or local depression conditions and, conversely, to avoid intensifying general or local boom conditions in the advanced countries. This programme might be particularly helpful in maintaining stability of employment during the immediate post-war era, from a year or two after the war through the decade or more of convalescence and difficult adjustments that must follow.

For the sake of clarity of exposition, attention will be concentrated below on China, as an example of a newly developing country, and on the United States, as an example of an advanced industrial country capable of supplying capital and equipment. This should not be taken to imply, however, that bilateral arrangements are advocated, except as they might be appropriate as part of a general world development programme under the auspices of an international development authority which would be particularly concerned with encouraging multilateral rather than merely bilateral exchange.

In brief, inducements would be offered to China (and other countries) to schedule the orders for equipment to be used in their development programmes so as to canalise this demand towards those particular industries and those particular localities which at any given time might be depressed and so as to step up the total volume of equipment orders in periods of actual or threatened gen-

eral depression. For example, certain industries or industry branches or localities might from time to time be officially listed, perhaps by agreement between the international development authority and governments concerned, as "underemployed". China would then be privileged to place orders with these industries, either directly or through an international development corporation, on special terms, including generous financing at very low rates of interest.

The benefit to China (and similar countries) would be much cheaper capital costs and probably also better delivery schedules and other advantages. The benefit to the United States (and similar countries) would be a higher and more evenly distributed level of post-war employment and income. This mutuality of benefit is possible because the essence of the method is to manufacture additional real capital out of productive power that would otherwise run to waste in unemployment and under-utilisation of capacity.

The success of the method depends upon having large-scale international development programmes laid out in advance and in considerable detail. It also depends upon thorough awareness of particular industry capacities and potential post-war surpluses and shortages, in the advanced countries. Finally, quite detailed negotiations, both of a political and business sort, would have to be carried on at various stages. All this means that to wait for the end of the war to set up the necessary organisation for planning and supervising such operations would perhaps make the whole attempt "too little and too late".

Early establishment of an international development authority, charged with working out plans for operations of the type outlined, is therefore important. It is desirable that the operations be on a broadly multilateral basis, under the aegis of an international authority representing both the industrially less developed and the industrially advanced countries. This is preferable to bilateral arrangements between, for example, the United States and China, or combinations of capital-supplying countries only, as in the old China "consortiums".

The Importance of the Timing and Direction of Equipment Demands

In times of actual or threatened unemployment in the United States, when industrial capacity is going unused and incomes are depressed, an additional demand for equipment arising out of large-scale foreign development programmes would be an unmitigated benefit. It would serve to sustain incomes and employment

in the industries immediately affected (equipment-supplying industries in the narrower sense, and also suppliers of materials, technical services, etc.). Beyond that, the "multiplier" effect of additional expenditures by these industries and persons deriving income from them would help to raise the level of income and employment generally. In such a situation—that is, starting from under-utilisation of capacity and under-employment of labour—the effect of supplying equipment for installation in other areas might be to raise American production and American income by considerably more than the amount actually sent abroad. In that case, the transaction would be of net benefit to the American economy quite apart from any repayment in the future, and even if no payment of any kind were ever received for the equipment.

However, exactly the same orders for equipment might not be beneficial at all to the American economy if they came at another time. In a situation of general boom, when inflationary tendencies should be held in check and when shortages of various kinds were creating production bottlenecks, additional equipment orders from abroad might intensify the shortages, make the problem of controlling inflation more difficult and contribute to an unhealthy speculative fever that would later be followed by a crash.

Thus, the repercussions of a large international development programme upon the advanced industrial countries will depend not only upon the size of the development projects themselves but also upon their timing and their type, in relation to the general economic situation in the equipment-supplying countries. It may be useful for the sake of illustration to speculate on the phases which China's economy and the economy of the United States are likely to go through in the post-war period.

Stages in the Post-War Economic Situation of China

For at least a year or two after the end of hostilities China's economic situation is likely to be dominated by emergency conditions: rescue and rehabilitation of underfed populations, repossession of territory, remigration, severe currency disorders and the like. Perhaps river developments, highway construction and other public projects that can be started on short notice and with relatively little equipment will be put under way at once as means of providing employment for soldiers. But it would be remarkable if any major development projects calling for large amounts of supplies from outside were actually ready for action before a year after the war, and the time needed for preliminary decisions and for working out plans and organisations might be longer than that.

Assuming political stability and international co-operation, this first stage of emergency relief and rehabilitation will gradually pass within a few years into the beginnings of a second stage, which might be labelled the stage of construction. This would be characterised by a rapidly rising volume of fundamental development projects—building of railways, airports, river works, power stations and industrial plants, improvement of agricultural techniques, introduction of machinery into agriculture, equipment of elementary and technical schools and training of personnel. There would be a large, and for many years a rising, demand in China for capital goods from abroad. (The demand for consumption goods from abroad would also rise rapidly, but it might be held in check at this stage by government policy, in order to save foreign exchange to be used in purchasing equipment and in order to encourage domestic industries.) China's capacity to absorb capital goods produced by advanced countries would be limited during the years of construction by: (1) the rapidity with which the Chinese people would be able and willing to learn how to operate new equipment and to make the profound changes in habits and social adjustments required by a transition from pre-industrial to industrial society; (2) the funds available to China for development purposes. As productivity rose in China, as the result of improved techniques and equipment and better education of labour and management, domestic savings would be more important and loans from abroad would be progressively less important in determining the rate at which new capital equipment could be installed; (3) the availability of the capital goods themselves in the outside world and in China. As China's technical knowledge and productive capacity advanced, a smaller *proportion* of new capital equipment would have to come from outside, for China would be able to supply many of its own needs. But the *absolute* amount of new equipment purchased abroad might go on increasing for many years, and then stay at a permanently high level, for the Chinese economy, as it became progressively wealthier, would demand a larger variety of equipment and an increasing volume of replacements.

There would be no clearly marked end of the second or construction stage of post-war Chinese economy, unless a great depression or internal political turmoil or a great war intervened to bring it to a close. Such events apart, the rate of new construction would at length slow down and taper off gradually. After three or four decades China might pass imperceptibly into a third stage, in which its problems would be more like those of countries already industrialised—namely, to maintain, so far as possible, a

somewhat slower but steady rate of progress. Its economic relations with and repercussions on the United States and other "advanced" countries of today would no longer be those peculiar to a new area undergoing the first stages of modern development.

Stages in the Post-War Economic Situation of the United States

A first post-war stage of uneven prosperity—of boom marked by sectors of depression—may be anticipated in the United States. That is, the general level of effective demand is likely to be high—indeed, so high as to threaten rapid price rises and to necessitate temporary continuation of wartime controls if inflationary forces are to be held in check. But in the midst of general prosperity and shortages there will be depressions in particular industries and particular localities and actual or potential surpluses of some kinds of goods.

This situation will be the result of two main factors. The first is an abnormal demand, including pent-up domestic demand for consumer durable goods and for replacements of equipment in industry, and a foreign demand for supplies needed in emergency relief, rehabilitation, and reconstruction. The domestic demands will have been built up during the war and will be backed by purchasing power. Persons who have saved and bought war bonds will want to spend these savings on new automobiles, refrigerators, tires, houses, etc.; industries, faced by excellent opportunities for profit, will rush to convert back to civilian production. Needs of devastated areas in Europe and Asia for food and for the materials with which to revive production and to reconstruct their cities and industries will work in the same direction, on the assumption, as seems likely, that these needs will be financed to a fairly large extent by gifts, loans and credits, as well as by the available assets of the countries concerned.

The second factor is structural maladjustment of production. This will account for the depressed spots during the boom. There will be certain lines of production, and not merely direct munitions industries, for which the post-war civilian demand will represent only a fraction of the wartime output. This is likely to be true, for example, of shipbuilding and aircraft construction and some sections of the machinery industry (especially, in the latter case, after the immediate spurt of reconversion demands has passed). It will take time to shift surplus workers and equipment from such industries into permanently tenable lines of production, especially as direct munitions workers and demobilised soldiers will be trying to make similar shifts. Plants that made civilian goods before

1941 will in some cases find it difficult to shift back from war production. There are likely to be serious problems of under-employment in specific industry branches and specific localities, even while business in general is booming.

Following this first stage of uneven boom, there is likely to be a second stage of actual or threatened general depression. This will come when the abnormal, pent-up demands based on the postponed consumption of wartime have been largely satisfied. Whether the United States gets merely the threat or the actuality of a severe depression depends upon the vigour and timing of counteracting policies by Government and business. This is the stage at which domestic measures for stimulating the rate of real investment— redeveloping cities, encouraging house construction, etc.—will be urgently needed and also the stage at which international demands for equipment to be used in the economic development of China or other countries will be most beneficial.

How soon after the war may this second stage appear? After the First World War, the post-war boom in the United States lasted through 1919 and early 1920. The general collapse of effective demand occurred in the spring of 1920, about eighteen months after the armistice. The depression which followed was relatively short, but sharp, and recovery began in 1921. There are reasons for expecting a somewhat longer period of post-war boom this time. This depends, among other factors, on the length of the war and on the wisdom and success of governmental and business policies designed to keep the boom phase under control. But it is too much to hope that the policies actually adopted will prevent the appearance sooner or later of a stage of incipient depression. Once the most urgent civilian demands piled up during the war have been met there is likely to be a sharp drop, to which the lower average age of durable goods then in the hands of consumers will contribute. Structural maladjustments inherited from the war will make the threat of depression still more grave once the drop occurs. At a guess, we might place the beginning of this second stage in the American economic situation some two to four years after the end of the war.

The third stage in the post-war economic situation of the United States will be reached when the stage of depression has been passed through or has been successfully neutralised by vigorous and timely expansionist policies. This third stage might be characterised as one of settling down to more or less "normal" progressive development. The effects of the war would gradually cease to be dominant elements in the economic situation and the ups and downs of business would be determined by future events and forces about which,

for present purposes, it would be fruitless to speculate. The major economic problem will be to keep an even keel at a rate of production which corresponds to substantially full employment, while increasing productive efficiency year by year so as to permit a steady improvement in living standards. A rate of consumption plus investment sufficient to balance a high and increasing capacity to produce is essential to avoid depression. So far as the investment side of this problem is concerned, a world development programme would provide an important and remunerative addition to domestic investment opportunities over a period of many decades—assuming that means are found for organising world political security and economic co-operation.

Managing Equipment Demands for Mutual Benefit

Given successive phases in the development of the post-war economic situation in China and in the United States somewhat resembling those outlined above, is it possible for Chinese needs for developmental equipment to be fitted into the industrial employment needs of the United States or other countries in such a way as to be of general benefit? Or will the supply of capital equipment for China make shortages worse, contribute to dangerous boom-time over-expansion, and in general necessitate sacrifices and intensify economic troubles in the United States? The thesis advanced here is that proper co-ordination and timing, to be attained by joint laying of plans in advance and joint execution of flexible programmes, can make the supply of equipment for China's post-war economic development very largely a matter of immediate common benefit. A considerable part of the capital supply needed by China might thus be achieved at a very low real cost, to a substantial extent out of productive power that would otherwise run to waste.

During the first post-war phase in the two countries (emergency conditions in China, reconversion and uneven boom in the United States) some types of commodities will have to be made available to China, as to other nations liberated from enemy occupation, despite a general shortage and even though the industries producing these things are already working at full capacity. This will be true of medical supplies, for example. The same will be true of key equipment and materials for emergency use in a Chinese rehabilitation programme. To some extent, left-over army equipment might be turned to this purpose. Providing the shipping shortage has been overcome, such items as army trucks, "jeeps" and the bulldozers used to make landing fields for the air forces could certainly be applied to good advantage in China for road building

and river control works. After the First World War, American transport equipment overseas was sold at about 25 per cent. of original cost.[1] Perhaps occupying forces will need more equipment for a longer time after this war, but there will surely be a considerable surplus stock on hand. Perhaps some excess wartime plant capacity—for example, ammonium nitrate plants, convertible to fertiliser production—could be transferred bodily to China with advantage to China and to the United States. There are also good arguments for continuing production on some war orders after hostilities have ceased, in order to "taper off" more gradually and lessen the immediate problems of transfer to civilian lines. Special consideration might be given to continuing the output of types of war equipment that could best be adapted for use in China (and elsewhere) in rehabilitation, reconstruction, and development.

As China begins to pass beyond the period of emergency measures and embarks upon some longer-range developmental projects the United States may still be in the stage of uneven boom. But it should be possible, through working out joint plans in advance, to find a considerable volume of equipment in the first two or three years after the war that would satisfy both the following conditions: (1) be immediately useful to China in the initial phase of its economic development; and (2) be capable of being produced by industries or industry branches in the United States which would otherwise be underemployed owing to lack of demand for their full capacity output. For example, the plant facilities and the trained workers which have turned out quantities of small boats and landing barges during the war might produce a modern river transport fleet for China's rivers.[2] They would perhaps be more readily convertible to this purpose than to the meeting of any other immediate civilian demand. The war-swollen shipbuilding industry might operate some of its yards—perhaps those in localities where alternative employment for labour is least available—to turn out ocean-going cargo carriers for China's large coastwise traffic and for handling an anticipated increase in Chinese import and export trade.

This is not to say that China should be content to wait for "cast off" equipment from the United States or other advanced industrial countries, or that China's programme of economic development should depend on whatever happens to be convenient for other countries to produce with otherwise unemployed resources. Presumably China will have its regular programme of development and will place the orders that it thinks important in the regular

[1] Irving BERNSTEIN: *The Automobile Industry: Postwar Developments, 1918-1921* (U. S. Department of Labor, Bureau of Labor Statistics, Hist. Study No. 52, Sept. 1942, mimeographed), p. 16.

[2] Or for the Amazon.

manner on the best terms it can get. What is suggested here is that *in addition* China should be encouraged to develop a *supplementary* programme which could be speeded up or slowed down or turned in one of several alternative directions of development in order to take advantage of opportunities abroad for the acquisition of capital equipment on favourable terms. As an inducement to China to put as much of its programme as possible into the "supplementary" category and to concentrate in the immediate post-war years on those types of equipment which could be produced from otherwise unemployed capacity, the United States (and other equipment-supplying countries) might offer special terms. Certain industries or industry branches might be officially listed from time to time as "underemployed". For example, any industry where output threatened to fall below a certain percentage of efficient installed capacity might be so listed. The Chinese development orders placed with these industries might be covered by credits at extremely low rates of interest—much lower than the rates at which China would ordinarily be able to borrow. Financing might be through a United States Government agency, such as the Export-Import Bank, in co-operation with an international development authority, or directly by some subsidiary of the international development authority itself. Similar arrangements might be worked out in other advanced countries where an unemployment problem existed and, of course, other developing countries might be invited to participate on the same basis as China. As stated earlier, China and the United States are used throughout this discussion simply for purposes of illustration, and the methods suggested could be generally applicable.

Such a plan would supply China with large quantities of capital (in the form of real capital, not capital funds expendable at discretion). The real capital would arise out of productive power that would otherwise have been largely wasted. Where there would have been idleness of plant and unemployment or underemployment of labour and management, there would now be production, and the production would be going to China in return for promises to repay the capital plus a small rate of interest.

For the first few post-war years, if forecasts made above regarding the economic situation in the United States are at all correct, structural underemployment will be the only source of "listed" industries in which orders could be placed on the basis proposed. (The situation in other industrially advanced countries, particularly those devastated by war, would differ from that in the United States in many ways.) But within two or three or more years there is likely to be a general threat to effective demand for the output

of the durable goods industries and, behind them, the raw material and other industries. At this point China should be invited to expand its supplementary equipment programme to cover an unlimited range of items, not just those for which surplus capacity had been discovered in the boom period. The United States could now afford to extend very generous terms on all sorts of equipment purchases, as part of a programme for maintaining a high level of employment not only in specific industries but throughout its economy.

Equipment supplied to China under these conditions as to *timing* in relation to the business cycle and *direction* in relation to structural maladjustments would represent little or no real cost to the supplying countries. In fact, the real income available to the people of the United States would very likely be greater rather than less as a result of furnishing equipment to China on such terms, even if no interest were paid and even if repayment were uncertain. This is because of the "multiplier" effect of orders to the durable goods industries in sustaining employment and income all along the line, in industries producing for local consumption as well as for export.

The benefit to China (and other countries to which such a plan might be extended) is obvious. It would mean an opportunity to equip the country with modern instruments of production at an extremely low capital cost. Orders placed in accordance with an inflexible domestic plan of development, without regard to the situation of the supplying countries, would very likely be placed to a considerable extent in boom-time, inflated markets. If so, they would have to be paid for at high prices and probably on disadvantageous terms as to credit, interest rates, delivery dates and the like. On the other hand, orders directed towards specific underemployed industries and orders timed so that the great bulk of them would fall in a period of depression or incipient depression could be placed on much better terms.

The Need for Advance Preparation

The actual putting into practice of such a programme would require a high degree of advance preparation as well as some means of co-ordinating its execution internationally. The benefits depend entirely upon *timeliness* of action, and *accuracy* of information on the changing economic situation in more than one country.

The most suitable auspices under which to organise and execute co-operative international programmes of this kind, as already suggested, would be that of an international development authority,

on which countries desiring to borrow for large-scale development and countries prepared to supply equipment, materials and technical aid would all be represented. Such an international development authority would probably find it expedient to decentralise its work regionally. Assuming that the principles discussed above in terms of China and the United States were to be applied on a much wider basis, there might be subcommissions or special public corporations to co-operate in the development of China, of south-eastern Asia, south-eastern Europe, Africa, Latin America, etc.

There are many reasons why the kind of co-operation described should be organised on a world-wide basis, or at least on a widely multilateral basis, rather than on a bilateral basis which would lead to separate bargains between China and the United States, China and Great Britain, China and the Soviet Union, and so on. One reason is that bilateral arrangements would be more likely to produce a revival of the old commercial and political antagonisms connected with competitive pursuit of short-term "national interests" in investment operations. China, and other countries in China's position, would be more exposed to pressures of national diplomacies; attempts to make investment undertakings serve some purpose of foreign political "penetration" or "power politics" would be more probable.[1] Furthermore, the advance planning which is essential for proper timing and hence for the harvesting of some of the most important mutual benefits would be much less effective on a bilateral basis. Important elements in the situation—namely, what action other parties are going to take at the same time—would remain unknown. Of course, many details might best be worked out bilaterally, so long as the programme as a whole were co-ordinated and checked by a multilateral authority.

One of the first concerns of an international development authority, in preparing to execute the type of mutually beneficial programme discussed in this chapter, would be to work out concrete programmes in which the probable equipment needs of the regions under development would be fitted into the probable employment needs of specific industries in specific localities at specific times. This could be done only on the basis of extensive information, translated into forecasts. Then flexible programmes of action

[1] As for the old "consortium" device formerly used by capital-supplying countries in some of their dealings with China, it is inapplicable for the purposes under discussion here. An association of bankers working under the auspices of their governments could make loans, but they could not plan and execute the economic (as distinguished from the purely financial) programme which is needed. In any case, a group of which China itself was not a full member would not be appropriate for planning the international aspects of Chinese development, nor would it be acceptable to the new China.

would have to be prepared, and actual execution would be adjusted to the real course of events as this became known. Considerable time would be required for preparation—assembling a staff, establishing the right contacts for pertinent information, analysing the information from many countries and putting it into comparable form and working out key projects in some detail. *Now* is not too early to start. In fact, if the tasks of planning and research are not begun until the end of the war, or just before the end, the whole undertaking may not be in time for effectiveness in the early post-war years.

What economic information would an international development authority need to have in order to work out a programme of the type contemplated here? In the first place, it would need to know about each region where large-scale development is contemplated (*e.g.*, about China):

1. A rough estimate of the order of magnitude of the total amount of capital goods of all kinds which the region might be capable of absorbing and putting to good use over the next ten years.
2. The particular categories of equipment and the approximate amounts of each that could usefully be absorbed in the earlier years.
3. What portions of this equipment would be needed from abroad and what could be supplied locally.
4. What particular items it would be important to have first—in other words, a priority schedule or flexible time schedule.

In the second place, an international development authority would need to know about each advanced industrial region capable of supplying equipment (*e.g.*, about the United States):

1. The probable productive capacity of particular equipment industries at the end of the war, and the ease or difficulty with which these capacities might be increased or decreased (by transfers of workers, etc.).
2. The peacetime demands, aside from international development projects, which might be anticipated for the output of these industries immediately after the war and over the next five to ten years, assuming various levels of national and world income.
3. On the basis of (1) and (2), indicated structural maladjustments leading to particular shortages and surpluses and the indicated types and amounts of equipment that might beneficially be ordered in this region for international development use at various stages.

In other words, what is needed is an international survey of resources and needs, from the particular point of view of development opportunities, in co-operation with the governments of all the countries involved. Even if this were done, in the first instance, rapidly and rather superficially, it would still take time. Time-consuming negotiations on the political plane and on the business plane would also be necessary before large-scale projects could be put under way. The importance of starting *soon* cannot be too strongly emphasised.

CHAPTER VII

SOME OBJECTIONS TO THIS PROGRAMME CONSIDERED

The proposal advanced in the preceding chapter embraces both the *timing* of supplementary equipment orders, in a manner to counteract the ups and downs of the business cycle, and the *direction* of supplementary equipment orders (even in good times) towards special areas and industries, so as to make use of manpower and productive equipment that would otherwise be underemployed. Thus, the development of new areas would be aided by methods that would at the same time lessen the economic disturbances and the human suffering connected with "cyclical" and "structural" unemployment.

Counter-Cyclical Timing

The desirability of encouraging counter-cyclical timing of developmental investments needs little justification. This would fit in directly with the measures for the international co-ordination of public works programmes which were advocated by the International Labour Organisation as long ago as 1937. To link the timing of world-wide developmental programmes for the newly developing countries with international co-ordination of national programmes in the advanced industrial countries themselves would greatly increase the effectiveness of anti-depression measures. A comprehensive programme of really constructive development which can be speeded up or retarded in accordance with the stabilisation needs of the economy is preferable to the kinds of "make work" projects which can be adopted on the spur of the moment. But experience teaches that in the absence of special measures, such as are proposed here, newly developing countries such as China (for example) will be most likely to purchase their equipment from the advanced countries in the boom years. In years of depression, when such purchases would be most helpful to the advanced countries and least costly to China, both the world demand for China's export products and the willingness of lenders to make new loans are likely to be at a low ebb. This makes it necessary for China to slow down rather than to speed up its construction pro-

jects in times of world depression. That is why some special plan for organising and financing developmental purchases of equipment in a counter-cyclical manner is needed. Otherwise, investment in the development of new areas may help to unstabilise rather than to stabilise the economies of the world.

Some who would agree that the timing of equipment orders so as to help stabilise employment is in theory desirable may argue that it is impossible in practice to do the timing accurately enough to make the scheme practicable. Of course, there would be practical difficulties, as there are in any attempt to do things more sensibly than they have been done before. At the very least, however, an international development authority undertaking a programme of the type here suggested could make available speedier and more accurate information on the situation and the trends in the capital goods industries of the world in relation to proposed developmental projects of newly developing areas. It could stimulate all parties concerned to plan further ahead. It could arrange special inducements, of the type proposed earlier, which would make it worth while for newly developing countries to prepare special projects that could be put into execution rapidly when the appearance of unemployment in the advanced countries offered favourable purchasing and financing opportunities. It is very unlikely that efforts along these lines would actually result in *worse* timing of developmental equipment orders than would be the case in the absence of such efforts, and the results obtained might be surprisingly good.

Direction of Orders to Structurally Depressed Localities or Industries

The policy of adjusting the *direction* of equipment orders so as to assist special depressed areas or special depressed industries is more open to question than the policy of timing such orders counter-cyclically. Nevertheless, for the disturbed condition of the immediate post-war decade, with its severe structural maladjustments, the arguments in favour of a policy of this sort outweigh the arguments that can be raised against it. It is a policy that needs to be applied with caution and discretion, however, and not indiscriminately.

In general, the best public policy is to stimulate and encourage those industries which are promising candidates for permanent expansion—the sorts of industries which can produce efficiently because they are well adapted to the resources and skills of their locality and because they find their products in increasing demand. Workers, managers and investors should be encouraged to shift

out of the weak, relatively ill-adapted and inefficient industries, or those experiencing declining demand, into more promising lines. The danger in directing developmental purchases so as to give aid to special underemployed industries or localities is that it may tend to shore up inefficient enterprises and to perpetuate situations that will continue to be weak spots in the economy. Which industries are over-built and should be allowed to decline is not easy to decide. Whether capacity is "redundant" or not depends in part on how rapidly world income and demand is going to increase. Measures to encourage economic development might supply not only a temporary demand for otherwise overexpanded industries, but a permanent increase in demand as well.

If one could trust market forces to indicate correctly at any moment which industries, from the point of view of long-run needs, ought to undergo expansion and which ought to contract, and if the free play of market forces could bring about these expansions in one direction and contractions in the other without much time-lag and without great transitional disturbances and human suffering, then there would be little reason for paying attention to structural underemployment. It would only be necessary to have sufficient total investment to raise the volume of effective demand to the full employment level. If only enough money were pumped into the market at any point it would spread throughout the economy and give work to everyone who wanted it. Unfortunately, just this impression is given by some of the less cautious writings on the relation of savings, investments, the "multiplier" and expansionary fiscal policies in general to full employment. Some such writings seem to carry the implicit assumption that the factors of production—workers, managers and natural resources—are almost perfectly mobile, so that they can shift painlessly and frictionlessly out of the industries and localities where they happen to be into those where expanding demand offers new opportunities. In real life this is far from the truth. Even in times of high general prosperity, for example, in the late 1920's, there were the famous "distressed areas" in England and Wales. Soft-coal miners in the United States were getting an average of only about 200 days of work a year. The textile and shoe towns of New England were suffering from a migration of their special industries to other regions, and wheat farmers in the American mid-West had insufficient incomes. Ideally, the redundant labour and capital in these places and occupations should have "flowed" into other types of production and perhaps other localities. But the flow was sluggish and in some cases hardly noticeable at all. Meanwhile, resources were wasted in persistent structural underemployment. Workers and their

families suffered. Another striking illustration of the way in which unemployment from structural unbalance may persist in spite of a very high level of effective demand is the fact that as late as September 1942 there were 400,000 unemployed in New York City, out of a labour force of 3,500,000.[1] This was more than two years after the beginning of large-scale defence expenditure, and despite a critical "manpower shortage" in the United States as a whole.

The structural maladjustments in every part of the world after this war will probably be as severe as any ever known. The first requisite for dealing with them constructively is, of course, the maintenance of a general high level of effective demand (produced by a high level of consumption and investment). But beyond that there is a special case for mitigating structural underemployment by directing some of the stimulus from large-scale purchases of developmental equipment specifically to industries and localities where problems are acute.

There are three types of situation in which it would be sound policy to direct supplemental equipment demands towards particular depressed industries or localities. These situations will be widespread in the decade after the war.

The first type is one in which contraction is necessary as a long-run proposition, because an industry has become overexpanded or for other reasons, but in which a more gradual process of contraction would have an important effect in lessening the difficulties of the readjustment. A rear-guard action, in the form of an artificial stimulus to the demand for the product, might enable a more orderly retreat to be made. For example, alternative means of employment may be scarce in some shipbuilding communities at the end of the war. Many workers may have to move elsewhere to find jobs. In these circumstances, a large order for river boats to be used in improving transportation in the newly developing parts of the world might be given to firms that have been making landing barges for the armed forces. Even though the order were not to be repeated, it would temporarily reduce some of the pressure on the shipbuilding community and would permit adjustments to be spread over a year or two.

The second type of situation is one in which an industry or a community is suffering from a temporary lack of demand for its product. The workers and equipment, though underemployed at the moment, will be needed later, perhaps after an abnormally low replacement demand has become normal again or after an anticipated rise in world demand has had time to materialise. For example,

[1] *New York Times*, 6 Sept. 1942, quoting an official of the New York State Department of Labor.

portions of the machine tool industry might work at top speed to make the equipment needed by plants converting from war production to civilian production and then suddenly find the job done. There would be hardly any replacement demand for the time being, because most of their customers would have just installed new machinery. This could happen to various industries, even in the midst of general prosperity. If it happened to enough large and important industries, however, general depression might follow. Measures to sustain demand in specific industries would surely be justified in cases of this sort.

The third type of situation which would justify specially directed orders for equipment arises when a depressed industry or locality could be "converted" to a new and more promising line of production, provided that a special stimulus and opportunity in that line could be offered to it. For example, if the textile industry in a certain region is declining as a result of cheaper production elsewhere, while the electrical equipment industry shows signs of eventually providing alternative employment in the same region, then a special supplementary order of electrical equipment for developmental purposes would be justified, especially if it were combined with subsidised vocational retraining for workers. Similar reasoning might apply to the case of a particular kind of factory for which the product was no longer in strong demand but which could be converted to some other line.

A final argument for the policy of directing part of the supplemental purchases towards underemployed industries and localities is that such a policy would probably increase the willingness of advanced countries to provide capital for international developmental undertakings. It would help to line up special interest groups in favour of a programme which is in the general interest.

The Repayment Problem

It may be objected against the programme proposed in the preceding chapter that it is undesirable to encourage China and other countries in similar positions to make large supplemental purchases of equipment and thus to increase their foreign exchange or "transfer" problem when repayment comes due. This is true, so far as the undesirability of a large cash debt is concerned. The method proposed would help to minimise this. A method which encourages and assists China to *time* and *direct* its purchases of equipment so as to buy as much as possible in depressed markets and with the assistance of special loans at very low rates of interest should have the effect of giving China the maximum amount of real capital with the minimum amount of cash debt.

Expansion Abroad a Supplement to Expansion at Home

The arguments put forward by economists in recent years for "expansionist" measures in order to sustain the level of employment and income have usually been cast in national terms. When aggregate community income is spoken of, it is usually "national income", although the same reasoning would apply to world income or the income of the people of one county or province. Proposals for action are ordinarily in terms of the fiscal policies of national governments, national housing programmes, national development programmes, and the like. This is a natural consequence of the fact that the only governmental units in the world today which have the authority and the means to grapple with major economic problems are national units. The main barriers to the movement of goods and services and to the shifting of capital, labour and management are largely along national lines, so that the division of the world economy into national compartments has been more important in the past than any other sort of division.

Yet the interconnections between the economies of nations are such that expansionist policies in one are much more likely to be effective if others pursue similar policies at the same time. Hence the well recognised need for international co-ordination of domestic anti-depression policies. The programme suggested here would add a further form of action against depression, making three in all: (1) domestic or national measures; (2) mutual reinforcement of these measures through international co-ordination; and (3) concerted measures for developmental investment in the under-equipped areas of the world, with special encouragement to the counter-cyclical timing of equipment orders and to placing them in depressed industries or localities.

Partly because the argument for expansionist economic policies has usually been presented in national terms, the question is likely to be asked, "Why have an international development programme? Why not maintain employment by domestic expansion?" It should be said at once that nothing in this discussion of international development is intended to suggest that domestic measures of expansion should be neglected. Both are needed; they are not alternatives. The reasons in favour of having both domestic and international anti-depression measures are largely implicit in what has already been said. Nevertheless, it may be useful to set them down explicitly here. There are four main points.

First, the two phases of expansionist policy—domestic economic expansion and world economic expansion—are interdependent; they are organically related. The best domestic policy will not

work as well as it should unless a suitable international policy is combined with it. It is often said that the most important contribution which great economies like the United States can make to world recovery is domestic recovery, and there is much truth in that statement. But it makes a great difference whether domestic recovery, is moulded in the light of what is needed for international recovery, not later but simultaneously.

Second, it is good to have more than one string to a bow. The danger in the decades ahead is not too much investment and employment, but too little, at least after the first few years of making up wartime deficiencies. By combining domestic and international measures to promote economic expansion there is more chance that some parts of the programme will achieve enough success to give the needed total stimulus.

Some of the domestic measures relied on to maintain employment at a high level may encounter serious resistance or may not be applied in time, or for one reason or another may not produce the results hoped for. The opposition to "government in business" may limit the scale of direct governmental investment for developmental purposes in some countries, or may force it into "non-competitive" projects of relatively low productivity. Unless the psychology of business men changes, public investment and deficit financing to stimulate employment may induce a lack of "confidence" which causes a further shrinkage in private investment. Measures designed to reduce the rate of saving (increase the rate of consumption), through shifts in tax burdens, increases in community expenditures on welfare and social security, and the like, may be effective in the long run, but they work only gradually and can hardly meet acute conditions. The same is true of attacks on monopoly as a means of promoting expansion and combating depression.

A programme of international investment, supplementing such domestic measures, offers advantages in many of these respects. Developmental investment in China and elsewhere would produce a stimulus in the form of increased demands for exports of equipment. This is a kind of stimulus which business men are accustomed to regard as good, whereas the same orders inspired by a public project at home might produce nervousness about government competition and government in business. Of course, international developmental investment will encounter resistances of its own. The point here is not that international investment is necessarily superior as an expansionist device to domestic investment, but that the two together are better than either one separately.

Third, the argument that domestic economic expansion in

the advanced countries can take care of their post-war employment problem seriously underrates the difficulties of structural readjustment. The advanced countries cannot use at home all the machines and other capital goods equipment that they can produce, especially with the new plants and the newly trained workers resulting from wartime expansion of these industries. As has been argued above, it would be much less difficult to get full employment after the war and also would be much more profitable for the advanced countries and beneficial for the world as a whole, if the utilisation of productive capacity of these types were maintained at a higher level through the development of new areas.

To get full employment through domestic measures alone it is necessary to convert the particular sorts of productive capacity that exist in the country into the particular sorts of productive capacity that are needed at home. The post-war employment problem will be much easier if both a wider area of demand and a wider area of supply can be taken in. A product that can be turned out by a particular plant in Belgium, Great Britain or the United States may be extremely useful in the economic development of Iran, Java or Bolivia, whereas the domestic demand for this particular kind of equipment may be small and the problem of converting the existing plant and existing skills to kinds of output for which there is an unsupplied domestic demand may be difficult.

Fourth, the expansion of employment through investment in the development of less developed areas increases the permanent productivity of the world much more than would an additional investment of like amount in the advanced countries themselves. Capital invested in areas where capital is scarce works at a higher "margin of productivity" than in areas where capital is already abundant. This is reflected in the higher interest rates, after allowance for risk, of the less developed areas. A new road or a new tool in China tends to increase output more than an additional road or an additional tool in the United States where the most urgent needs of this sort have already been met.

From the standpoint of the industrially advanced countries, an expanding world market, with a higher initial demand and a higher replacement demand for the technical goods and equipment that they are now particularly able to produce, would make it possible for them to expand (or to contract less) in just those lines in which their labour can be most productively employed. In this way a world development programme would enable labour to work at jobs which would yield higher wages than could otherwise be earned. In general, productive efficiency rises as a result of the

greater specialisation which is made possible by a wider market and wider division of labour. If proper adaptations can be made (see Part II) the increased size of the world market resulting from world development will enable such improvements in the division of labour to be made. This permits living standards to rise.

PART II

LONGER-RANGE EFFECTS RESULTING FROM SHIFTS IN PRODUCTION, CONSUMPTION, AND TRADE

A. The Nature of These Effects

CHAPTER VIII

ECONOMIC DEVELOPMENT AND TRADE PROSPECTS

Economic development means the rise of new and more efficient production in agriculture, mining, manufacturing, and commerce. Some of the new production will undoubtedly be competitive with established industries of the advanced countries. On the other hand, rising income levels in the countries undergoing development will enable their people to consume more than ever before, including perhaps many products from the advanced countries for which they were not good markets in the past. Is the net result likely to be favourable or detrimental to the more highly developed economies? What problems will be raised for them, and what shifts in production may they have to undertake? What could be done to make the necessary readjustments less onerous and to encourage results that, so far as possible, will be of mutual benefit to the newly developing and advanced countries alike? These are the problems to be considered in Part II.

Economic Development and the Volume of External Trade

Does the economic development of a country lead to a shrinkage of its trade with the rest of the world? So far as past experience is concerned, the evidence is decidedly to the contrary.

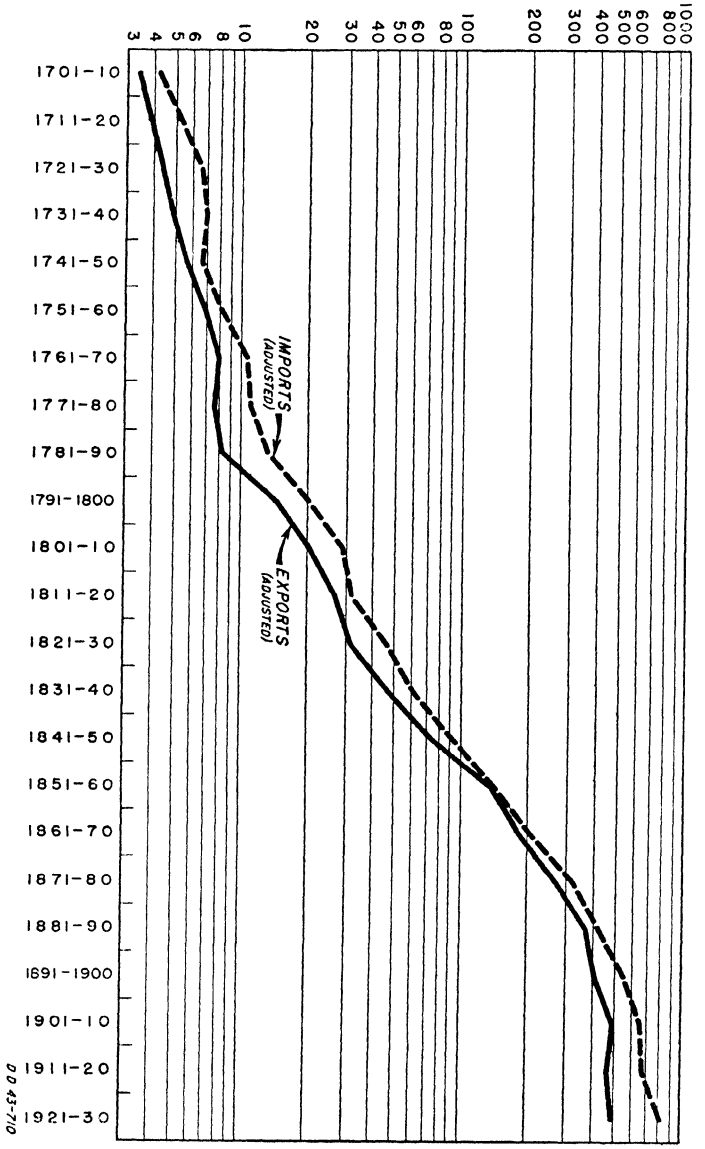
The United Kingdom in 1775, at the beginning of a spectacular period of industrial pioneering and economic growth, imported goods from other countries to the value of 13 million pounds sterling and exported goods to the value of 8 million. By 1929 imports had increased more than 70-fold to 919 million pounds and exports had increased 69-fold to 554 million pounds (chart 1).[1]

The dollar value of United States imports in 1850 was 173 million. In 1929, after three quarters of a century of tremendous

[1] These import and export values and others shown in chart 1 have been adjusted to take account of price changes. The other charts that follow show current values, except that chart 5 on Japan gives both current and adjusted values. The data necessary to achieve consistency in this respect were not available.

Chart 1. The External Trade of the United Kingdom, 10-Year Averages, 1701 to 1930[1]

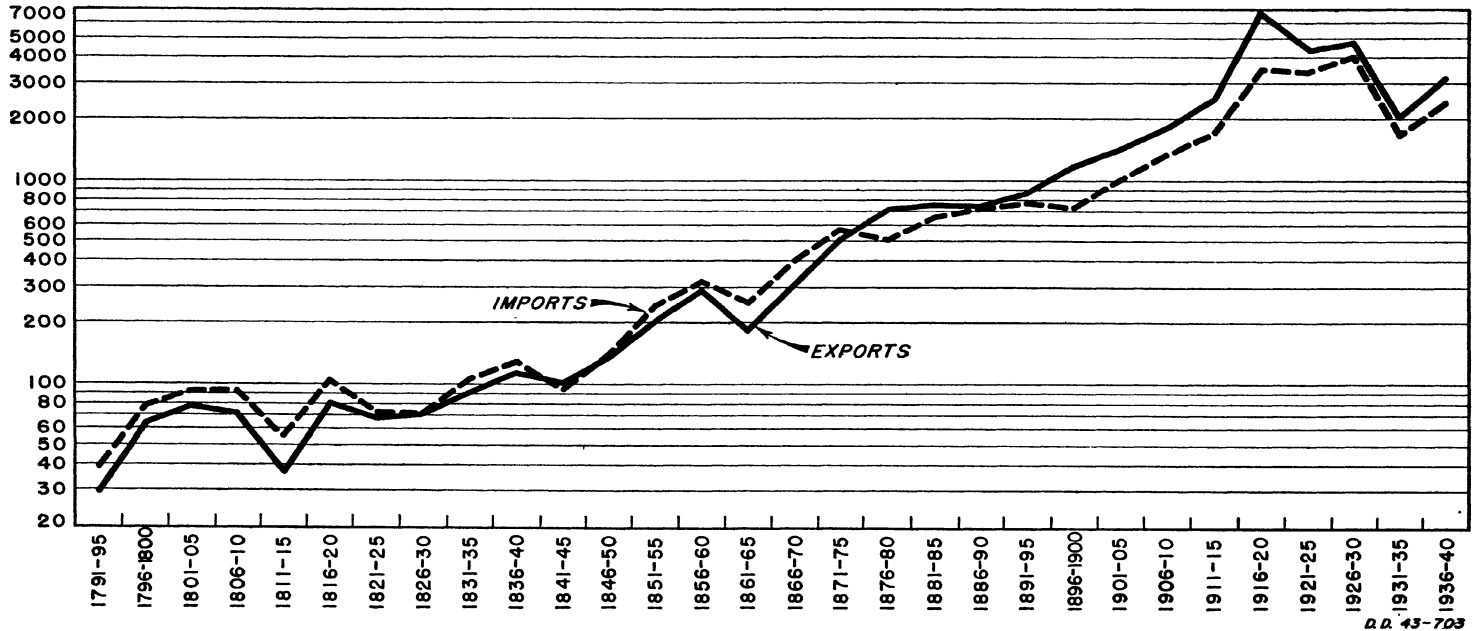
(Millions of Pounds, Adjusted for Price Changes and Linked to 1913 Prices as Explained in Footnote)



[1] Werner SCHLOTE: *Entwicklung und Strukturwandlungen des englischen Aussenhandels von 1700 bis zur Gegenwart* (*Probleme der Weltwirtschaft*, Schriften des Instituts für Weltwirtschaft an der Universität Kiel, No. 62), p. 48 and tables 7, 9, 10 in Appendix (Jena, Fischer, 1938). Schlote, as explained on pp. 29-33 of his study, has adjusted for price changes in a number of separate periods, using different weights for different periods, and has finally linked the periods to 1913 prices. The data before 1814 are based on official valuations which made use of the prices prevailing in 1694, thus providing an index of volume rather than of current value.

Chart 2. The External Trade of the United States, 5-Year Averages, 1791-1940[1]

(Millions of Current Dollars)



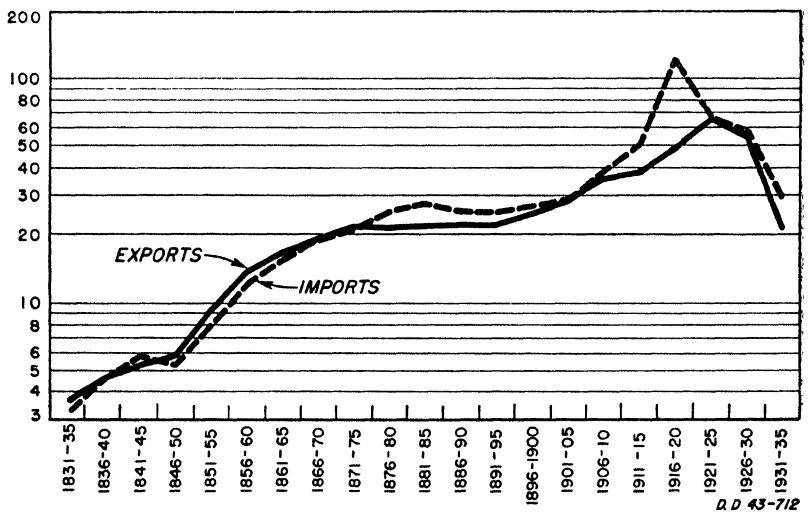
[1] U. S. DEPARTMENT OF COMMERCE: *Statistical Abstract of the United States, 1941*, pp. 523, 525, and 526; and TREASURY DEPARTMENT: *Monthly Summary of Commerce and Finance of the United States*, No. 5 Series, 1898-99, p. 1446, and No. 5 Series, 1899-1900, p. 1889. Data cover general trade. Fiscal years ended 30 Sept. through 1842; fiscal years ended 30 June through 1870; calendar years thereafter.

expansion in agriculture, manufacturing, internal commerce, population, and territorial settlement, imports were 4,399 million, 25 times as large. Exports rose during the same period from 144 million dollars to 5,241 million, a 36-fold increase (chart 2).

The economic development of France in the 75 years before the First World War was accompanied by a 10-fold rise in imports and an 8-fold rise in exports (chart 3).

Chart 3. The External Trade of France, 5-Year Averages, 1831-1935[1]

(Billions of Francs of 1928 Gold Parity)



The beginning of Germany's great period of rapid industrial expansion is commonly dated about 1880. Between that year and 1913 its imports showed almost a 4-fold increase, while exports increased 3½ times (chart 4).

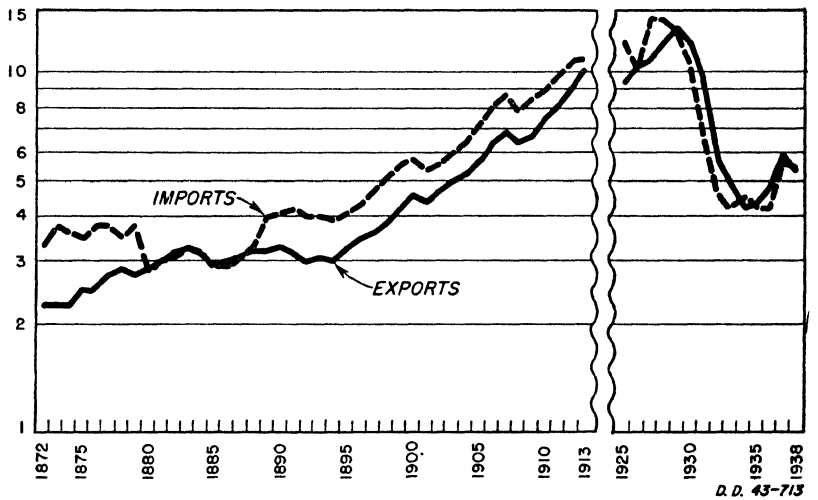
After centuries of political and economic isolation, Japan began to trade with the rest of the world in the 1860's. In subsequent decades it adopted western techniques and entered upon a period of rapid economic development. From 1873 to 1937, Japan's imports increased 42 times in quantity and its exports 65 times. (The increases measured in current values, not taking account of price changes, were 135 times and 147 times respectively.) In 1929, just before the onset of the world depression, Japan was buying

[1] MINISTÈRE DU TRAVAIL ET DE LA PRÉVOYANCE SOCIALE: *Annuaire statistique, 1910* (Paris, Imprimerie nationale, 1911), "Résumé rétrospectif", pp. 78*-79*; also *Annuaire statistique, 1938*, "Résumé rétrospectif", p. 125*. Data cover special trade, converted to francs of 1928 gold parity.

11 times as much from the rest of the world (after allowance for price changes) and selling 10 times as much as in 1889, forty years earlier (chart 5).

Chart 4. The External Trade of Germany, 1872-1938[1]

(In Billions of Reichsmarks)



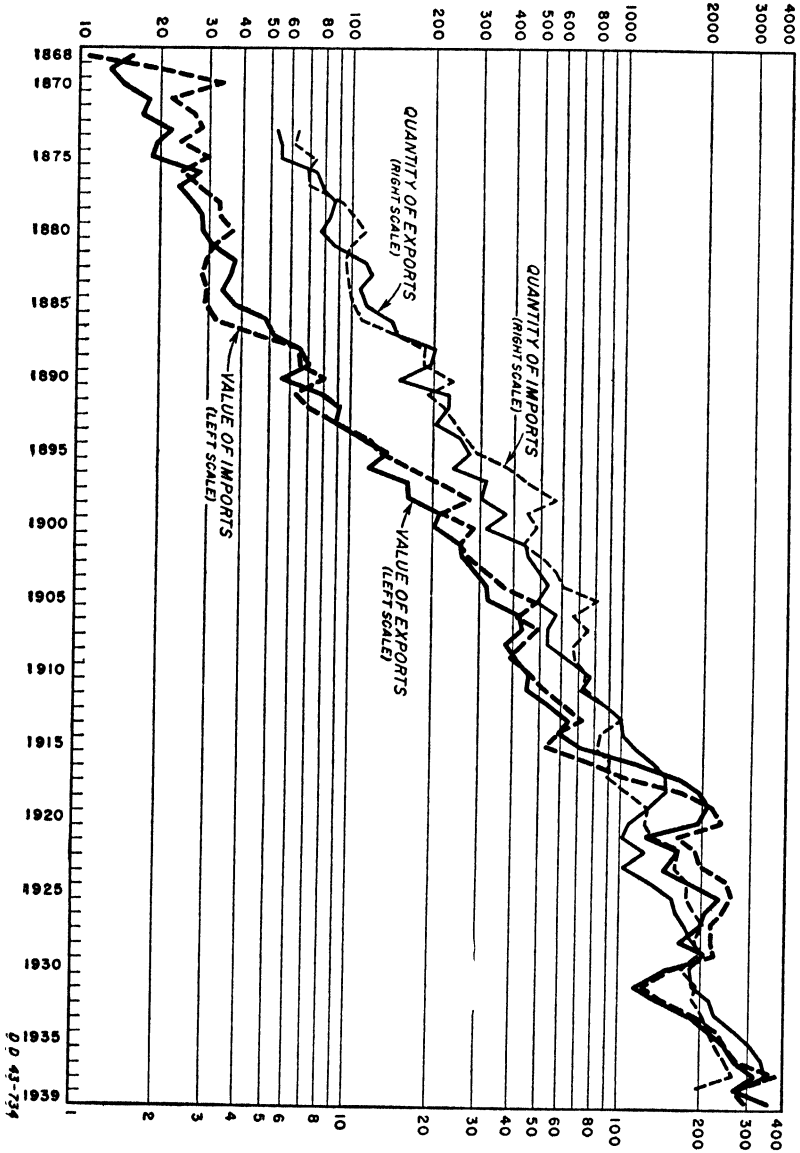
The one great exception to the general rule that the external trade of a country increases as its resources are developed is the Soviet Union (chart 6). Before the First World War there was a strong upward trend in the imports and exports of Russia. After the disturbances of war and revolution this trend was resumed under the Soviet Union in the middle 1920's, although at a lower level (so far as comparisons can be made between the pre-war and post-war values). From 1930, however, in the case of exports, and from 1931 in the case of imports, there was a sharp decline, with only a slight recovery in the latter part of the 1930's. At the same time, the Soviet economy was in a period of rapid expansion. Industries grew at a phenomenal rate under successive five-year plans. In this instance, clearly, rapid economic development and industrialisation were accompanied by a decrease in external trade.

The explanation is to be sought in a number of special circumstances. The depression in the capitalist world in the 1930's not only reversed the upward trend in the trade of most other countries (see charts 1-6) but also affected Soviet trade. It brought a severe

[1] STATISTISCHES REICHSAMT: *Statistisches Jahrbuch für das Deutsche Reich*, Annual volumes for 1885, 1937, and 1939. Data cover special trade.

Chart 5. The External Trade of Japan, 1868-1939[1]

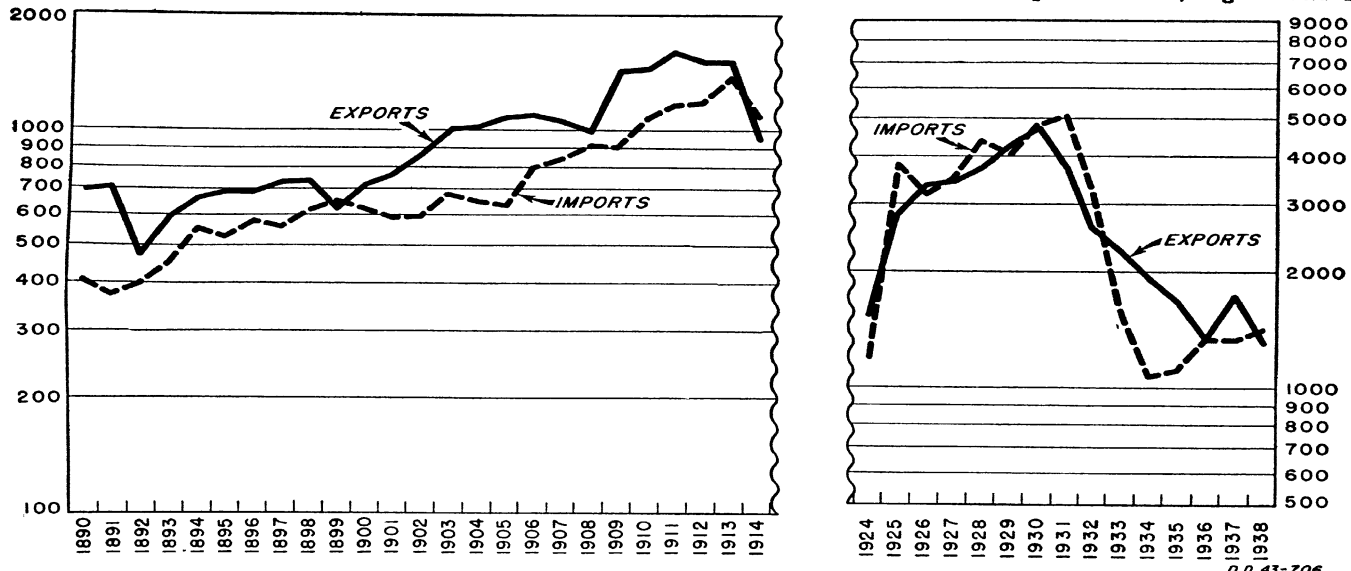
(Millions of Current Yen, Left-Hand Scale; Index Numbers, 1913=100, Right-hand Scale)



[1] TANZAN ISHIBASHI (ed.): *The Foreign Trade of Japan: A Statistical Survey* (Tokyo: issued by the *Oriental Economist*, 1935), Figure III (frontispiece), pp. 697-698, for years through 1934. For later years value figures are from U. S. DEPARTMENT OF COMMERCE: *Foreign Commerce Yearbook*, 1939, p. 266, and quantity figures are from *Oriental Economist*, Nov. 1940, p. 734 (attributed to the Yokohama Specie Bank).

Chart. 6 The External Trade of Russia and the Soviet Union, 1890-1938[1]

(Millions of Old Gold Rubles, Left-Hand Scale; Millions of Foreign Trade Rubles, as Adopted in 1936, Right-Hand Scale)



[1] *Obzor Vneshnei Torgovli Rossii*, 1890-1903 (St. Petersburg, Department of Customs Collection, 1892-1905). *Vneshnyaya Torgovlya Soyuza Sovietskikh Sotsialisticheskikh Respublik*, 1904-1928. *Statisticheskii Obzor* (Moscow, Cooperative Supply Publishing Co., 1931). *Statistika Vneshnei Torgovli*, 1929-1938 (Central Customs Directorate, Foreign Trade Publishing Bureau, 1930-1939).

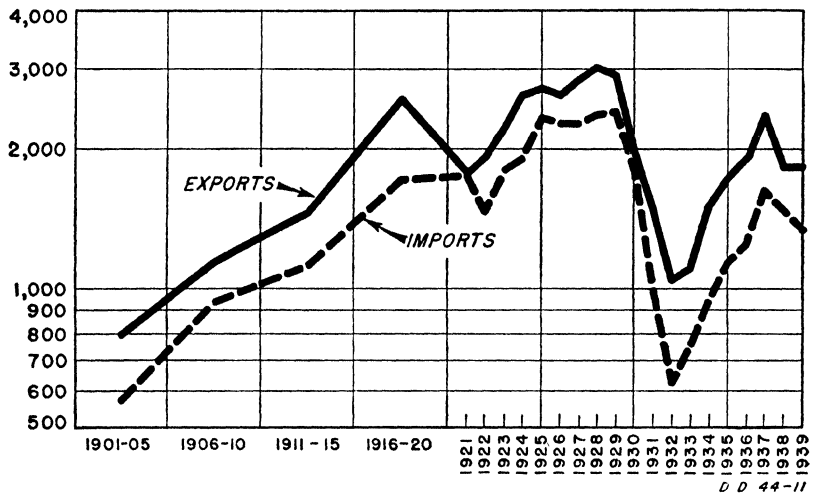
(An approximate translation of the above is as follows: *Survey of the Foreign Trade of Russia*, 1890-1903. Publication of the Department of Customs Collection, St. Petersburg. Published annually 1892-1905. *Foreign Trade of the Union of Soviet Socialist Republics*, 1904-1928. *Statistical Survey*, Office of the Cooperative Supply Publishing Co., Moscow, 1931. *Statistics of Foreign Trade*, 1929-1938. Central Customs Directorate. Foreign Trade Publishing Bureau. Published annually 1930-1939.)

Data not adjusted for territorial changes. Figures for 1924 through 1935 converted, at ratio of 1 to 4.6, to foreign trade rubles as adopted in 1936. Values on left-hand scale and those on right-hand scale are also related at this ratio.

fall in the price of Soviet export products, which were at that time mainly raw materials, and made the exchange of these products for imports of machinery and other needed items less advantageous.

Chart 7. Aggregate External Trade of the Latin American Republics, 5-Year Averages, 1901 to 1920, Annual Totals, 1921 to 1939[1]

(Millions of Current U.S. Dollars)



The vast extent of Soviet territory and the great variety of its resources made a largely self-contained development more feasible for it than for any other region still to be developed. Strict control over income distribution and trade prevented consumers from having or making use of increased purchasing power to buy "standard of living goods" from abroad. Finally, and most important, the strained intensity and speed with which Soviet industrialisation was pushed ahead and the course that it took (concentration on heavy industries first) was prompted in no small measure by anticipation of war. Under the circumstances there were strong strategic reasons for a deliberate policy of maximum self-sufficiency and a minimum of foreign trade.

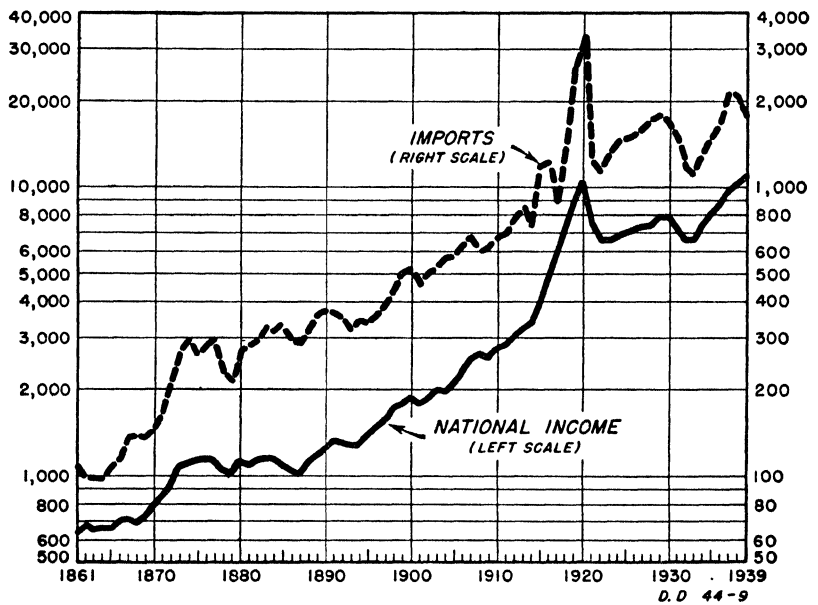
This historical case of the Soviet Union's trade serves to underline the importance of the fundamental assumptions, stated earlier, on which this study is made. If the world after the present war is one in which the countries that are prepared for rapid economic development feel no greater sense of security against attack than

[1] U. S. DEPARTMENT OF COMMERCE: *Foreign Commerce Yearbook* for 1926, 1930, 1935, and 1939 (data assembled from summary tables covering each country).

did the Soviet Union in the last two decades, then, indeed, there will be other attempts to promote an isolated internal development without expansion of imports and exports. Other countries, lacking the enormous extent and variety of resources to be had within the boundaries of the U.S.S.R. would not be in as good a position to succeed, but they might nevertheless be impelled to try.

Chart 8. National Income and Imports of Sweden, 1861-1939[1]

(Millions of Kronor)



The analysis in this study, however, assumes a reasonably effective system of political security. It also assumes a willingness on the part of the advanced industrial countries to co-operate in the process of economic development in other parts of the world, and willingness of the countries undergoing development to accept that co-operation. Past experience indicates quite clearly that where there is a sense of reasonable security against attack and

[1] Income data are from: THE INSTITUTE FOR SOCIAL SCIENCES OF THE UNIVERSITY OF STOCKHOLM: *The National Income of Sweden, 1861-1930*, Part I, pp. 234-235. The series after 1930 has been extrapolated on the basis of estimates for the years 1930 to 1936 in an article by Erik LINDAHL in the *Skandinaviska Kreditaktiebolaget*, Quarterly Circular, July 1937, pp. 45-50, and on the basis of estimates for the years 1936 to 1939 by the Swedish Department of Finance. Import data are from: THE INSTITUTE FOR SOCIAL SCIENCES OF THE UNIVERSITY OF STOCKHOLM: *The National Income of Sweden, 1861-1930*, Part II, pp. 234-235, and the U. S. DEPARTMENT OF COMMERCE: *Foreign Commerce Yearbook*, 1939, p. 110.

readiness to co-operate in encouraging mutually beneficial trade, the countries undergoing development show large increases in their total purchases from other countries and in their total sales to other countries.

It would be a mistake, however, to suppose that the effect of a particular country's economic development upon world trade is reflected only in its own imports and exports or is adequately measured by the changes which they undergo. The development of modern industry in Great Britain, in western Europe and in the United States expanded the exports and imports of many so-called "raw material countries" as well. Indeed, the rapid expansion of international trade as a whole which took place in the nineteenth century and the early part of the twentieth century down to the world depression of the 'thirties is itself an indication of the broad effects of the expanding production and income in the countries that were centres of economic progress—the stimulus of their buying power, their improvements in the technology of production and transportation, and their capital. It was calculated for a German trade investigation that the volume of international trade, after allowing for price changes, increased from 1881 to 1894 at an average rate of 3.02 per cent. a year, from 1894 to 1907 at 3.84 per cent. a year, from 1907 to 1913 at 4.52 per cent. a year, and from 1925 to 1929 at 4.85 per cent. yearly. That is, the rate of increase was a rising one.[1]

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[1] *Der Deutsche Aussenhandel unter der Einwirkung weltwirtschaftlicher Strukturwandlungen*, II, p. 348. This constitutes Volume 20 in the publications of the Ausschuss zur Untersuchung der Erzeugungs- und Absatzbedingungen der deutschen Wirtschaft (*Enquête-Ausschuss*), prepared and published by the Institut für Weltwirtschaft und Seeverkehr an der Universität Kiel (Berlin, Mittler, 1932).

The thought may occur to some readers that the rate of growth of the external trade of countries cited as examples of modern economic and industrial development should be compared with the rate of growth of international trade as a whole, or that the growth of the trade of "industrial" countries should be compared with that of "agrarian" or raw material supplying countries. Such comparisons would not be particularly significant for the present problem, however, for the growth of the international trade of a country will reflect not only its own economic development but also that of other countries. If the United States, by reason of an internal increase in productivity and income, expands its imports from Costa Rica by $100 million yearly, the Costa Ricans are soon able to buy more themselves. The percentage increase in Costa Rica's trade may be larger than the percentage increase in the foreign trade of the United States because of the difference in size of the two economies. Also, if multilateral trade channels are reasonably free to expand, the original developmental stimulus may pass on from the second to a third and fourth and other countries. The activating centres of trade expansion could have a slower rate of increase at some stages than the rate of increase shown by other, especially smaller, economies which are riding the waves thus put in motion.

Some interest may attach, none the less, to the following indications of average rates of growth of imports derived from the charts in this chapter by a rough-and-ready graphic measurement of trend lines which were laid out by eye. The period represented by each such trend line is indicated below. Rates of increase are expressed in terms of the number of years required to bring about a doubling.

Income and Imports

People who produce more can afford to buy more. As the total income of a country rises it becomes able to purchase a larger volume of imports from abroad, paying for them by correspondingly increased exports, and it is likely to do so unless special circumstances stand in the way. There is a straightforward connection between economic development and larger imports, for economic development increases production and income (both by improving the fundamental capacity to produce and by helping to maintain a high level of economic activity).

The economically less developed countries contribute to the trade of the world much less than in proportion to their size and population. For example, Albania, Bulgaria, Greece, Hungary, Poland, Rumania, Turkey and Yugoslavia together represented in 1935 a third of Europe's area, over a fourth of its population, but only 6 per cent. of its imports and 8 per cent. of its exports.[1] India and China account together for 39 per cent. of the world's population but for only 5 per cent. of its international trade.[2]

Chart 7 shows the aggregate international trade of the 20 Latin American republics, including trade among themselves. Their imports run only about twice as high in value as the imports of Canada (chart 12), not counting, of course, any of the interprovincial trade within Canada. The United States sells almost as much to less than 12 million Canadians on the north as to more than 120 million people in the Latin American republics on the

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The following rates of increase apply to *volume* of imports (that is, after allowance for price changes):

Japan (chart 5), 1880-1913: doubling in 10 years; 1873–1929, doubling in 11 years.
United Kingdom (chart 1), 19th century: doubling in 19 years.
World (obtained by plotting the volume data of the German *Enquête-Ausschuss*, cited above, based on 33 countries), 1881-1913: doubling in 20 years.

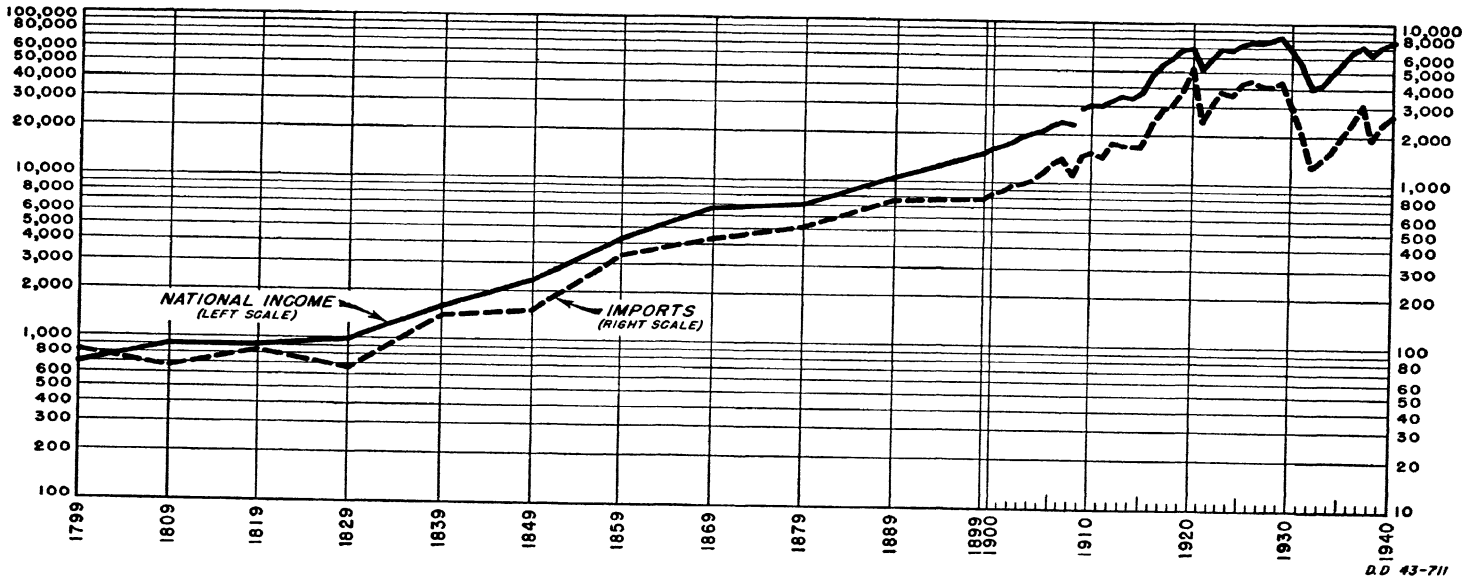
The following rates of increase apply to imports at *current values:*

United States (chart 2), 1840's to 1913, also 1840's to 1929: doubling in 16-17 years.
France (chart 3), 1830's through 1880's: doubling in 16 years; 1830's to First World War: doubling in 22 years.
Germany (chart 4), 1880-1913: doubling in 16 years.
Japan (chart 5), 1880-1913 and also 1868-1929: doubling in somewhat more than 8 years.
Russia (chart 6), 1890-1913: doubling in 13 years.
Sweden (chart 8), 1861-1929: doubling in 17 years.
Australia (chart 11), 1901-1929: doubling in 12 years.
Canada (chart 12), 1911-1929: doubling in 12 years.
Latin America (chart 7), 1901-5 to 1916-20: doubling in 11 years; 1901-5 to 1929, doubling in 13 years.

[1] League of Nations: *Europe's Trade*, 1941, p. 49 and table 4 on p. 16.
[2] League of Nations: *The Network of World Trade*, 1942, p. 19.

Chart 9. National Income and Imports of the United States, 1799 to 1940[1]

(*Millions of Current Dollars*)

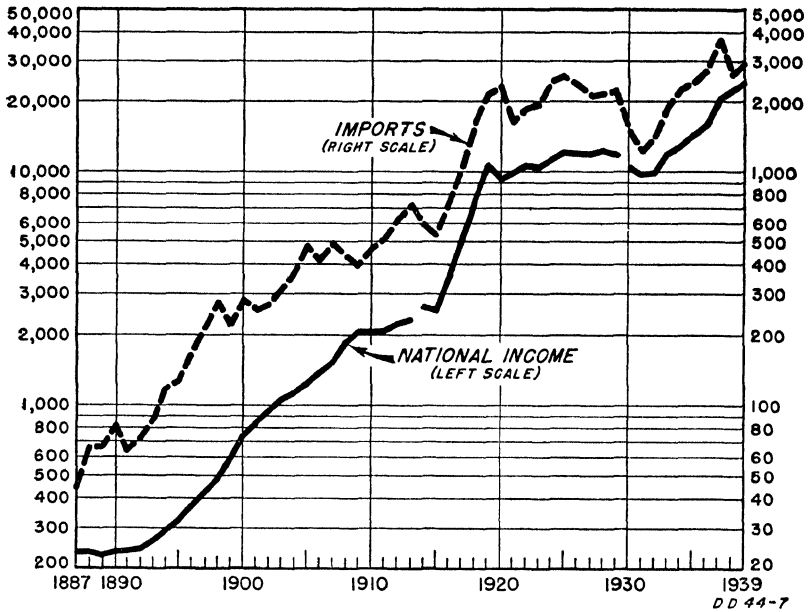


[1] Income data are from: Robert F. MARTIN: *National Income of the United States, 1799-1938*, New York, 1939, p. 6 (decennial data, 1799 to 1889, and annual data, 1900 to 1908); U. S. DEPARTMENT OF COMMERCE: *Survey of Current Business*, Mar. 1943, p. 22 (covering period 1929 to 1940); extrapolated back to 1919 on basis of Simon KUZNETS: *National Income and Capital Formation, 1919-35*, New York, 1937, and to 1909 on basis of W. I. KING: *The National Income and Its Purchasing Power*, New York, 1930. Import data are from: U. S. DEPARTMENT OF COMMERCE: *Statistical Abstract of the United States, 1941*, Washington, pp. 523, 525, and 526; and TREASURY DEPARTMENT: *Monthly Summary of Commerce and Finance of the United States*, No. 5 Series, 1898-99, p. 1446, and No. 5 Series, 1899-1900. p. 1889. Fiscal years ended 30 Sept. through 1842; fiscal yearsended 30 June through 1870; calendar years thereafter.

south.[1] This is true notwithstanding the fact that Canada has a thoroughly modern technology, like that of the United States, and a similar climate, while Latin America might be regarded by some as a more logical area for the marketing of United States products

Chart 10. National Income and Imports of Japan, 1887-1939[2]

(*Millions of Yen*)



because its climate, resources, and stage of industrial development are so markedly different. A major part of the explanation is that Canada's economic development is so much further advanced that its productivity, income level, and living standards are much higher than those of Latin America. Canadians can afford to buy, and do

[1] In 1939 United States exports to Canada were 489 million dollars and to the 20 republics of Latin America were 549 million dollars. The proportion was not greatly different in other recent years. (*Statistical Abstract of the United States, 1942*, p. 562.)

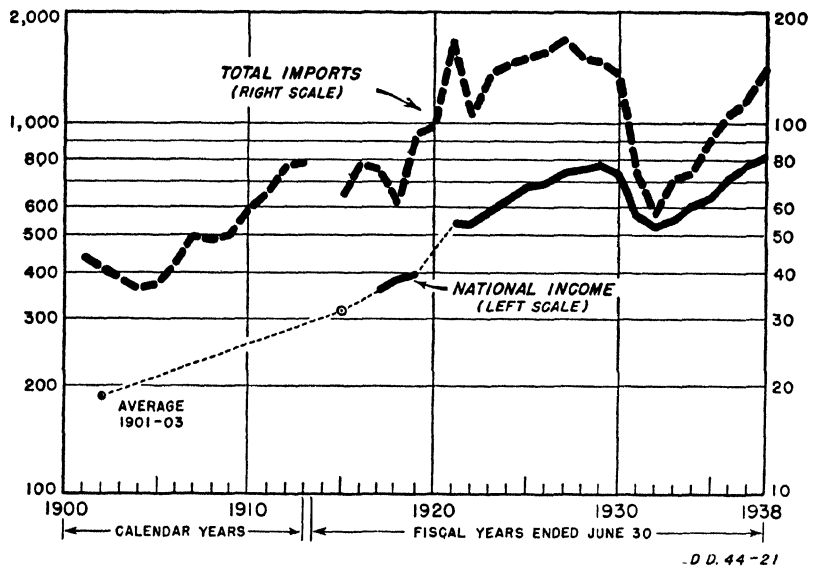
[2] Income data are from: K. MORI: "The Estimate of the National Income of Japan Proper", in *Bulletin de L'Institut Internationale de Statistique* (Tokyo, 1931), Tome XXV, 2ème livraison, pp. 203-4 (for years 1887 to 1913); MITSUBISHI ECONOMIC RESEARCH BUREAU: *Monthly Circular*, Mar. 1934, p. 10, compiled by Prof. S. HIJKATA (for period 1914 to 1929); JAPAN ECONOMIC FEDERATION: *National Income of Japan* (Tokyo, 1939), pp. 48, 101 (for period 1930 to 1939). Import data are from: TANZAN ISHIBASHI (ed.): *The Foreign Trade of Japan: A Statistical Survey* (Tokyo: issued by the *Oriental Economist*, 1935), p. 697, for years through 1934, and for later years from U. S. DEPARTMENT OF COMMERCE: *Foreign Commerce Yearbook*, 1939, p. 266.

buy, for themselves and for the use of their industries, the advanced, dynamic, "high income" goods which the United States is particularly effective in producing.

The closeness of the connection between a country's income and the amount of its imports may be judged from the next series of charts. Chart 8 compares the national income and imports of Sweden from 1861 through 1939. Sweden offers the longest avail-

Chart 11. National Income and Imports of Australia, 1901-1938[1]

(*Millions of Australian Pounds*)



able series of annual income data. In chart 9 the national income and imports of the United States are compared at ten-year intervals from 1799 to 1900 and annually thereafter. Chart 10 shows Japan's national income and imports from 1887 to 1939. It has also been possible to get data for Australia (chart 11) and Canada (chart 12) over shorter periods. Four significant conclusions may be drawn from these comparisons.

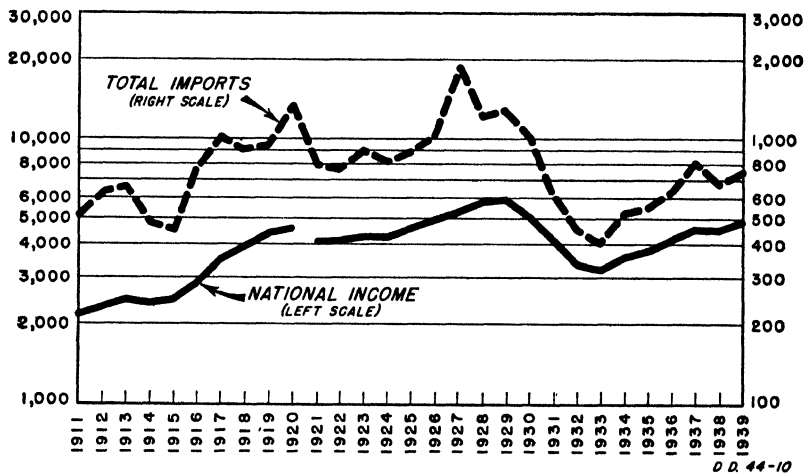
First, there is in every case a strong parallelism between the long-run growth of national income and the growth of imports.

[1] Income data are from: Colin CLARK and J. G. CRAWFORD: *The National Income of Australia*, 1938, pp. 59-60. Import data are from: AUSTRALIAN COMMONWEALTH BUREAU OF CENSUS AND STATISTICS: *Trade and Customs and Excise Revenue, 1911*, and earlier issues; U. S. DEPARTMENT OF COMMERCE: *Foreign Commerce Yearbook*, 1939, p. 190 (original figures in pounds sterling for 1931 to 1938 adjusted for discount on Australian pound).

Second, there is also in every case where annual data are available a clear conformity between the major up-and-down fluctuations of income as affected by prosperity and depression and the fluctuations of imports. The co-variation between income and imports even extends to minor fluctuations, especially when, as in the Swedish data and in the later years on some of the other charts, the income data are good.

Chart 12. National Income and Imports of Canada, 1911 to 1939[1]

(Millions of Canadian Dollars)



Third, although imports rise in close conformity with growth in income they do not rise quite in proportion to income. That is, over a long period there is a tendency, exhibited in all of the charts which cover enough years, for the ratio between imports and income to decline as income rises.[2] This in in accord with the expectation,

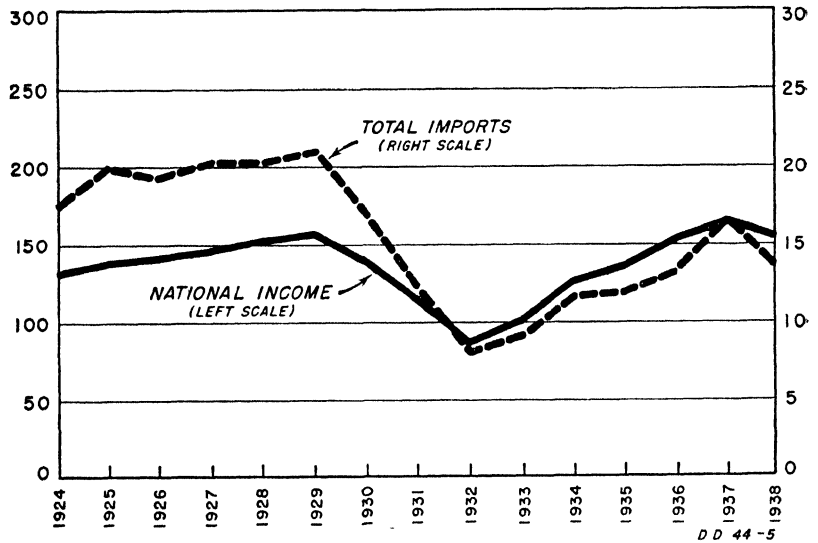
[1] Income data are from: J. J. DEUTSCH: "War Finance and the Canadian Economy, 1914-20", in *Canadian Journal of Economics and Political Science* (Toronto, Nov. 1940), p. 538; and the *Monthly Review of the Bank of Nova Scotia* for May 1937, Sept. 1940, and June 1941. Import data are from: DOMINION BUREAU OF STATISTICS: *Monthly Report of Trade of Canada*, Dec. 1920, p. xii, and *The Canada Year Book, 1941*, p. 401.

[2] The charts are drawn on a ratio scale, so that two curves moving upward at the same rate (that is, an equal percentage of increase year by year) will have the same slope. When the import line lies above the income line the tendency of income to grow slightly faster than imports is shown by a narrowing of the space between the two curves as they move to the right along the time-axis. When the import line lies below the income line the same tendency is shown, of course, by a widening of this space. The import scales on these charts are exactly one tenth of the corresponding income scales. Therefore, the import line lies above the income line when the country's imports are more than 10 per cent. of its national income and below when they are less.

suggested in the Introduction and Summary (I), that as a community grows more wealthy it will spend a somewhat smaller percentage of its total income on commodities and a somewhat larger percentage on so-called "tertiary" production, especially services of various kinds, such as merchandising services, travel and trans-

Chart 13. Aggregate National Income and Imports of Twelve Countries, 1924 to 1938[1]

(Billions of Current Dollars)



port, education, medical services, government administration, and professional services of many sorts.[2] If such services are "imported" (for example, insurance, tourist travel, education, etc., purchased abroad) they do not show up in the trade statistics.[3] Furthermore,

[1] Countries included are: United States, United Kingdom, Germany, France, Japan, Sweden, Norway, Denmark, Netherlands, Canada, Australia, and New Zealand. Import data are from the official foreign trade statistics of these countries. Income data are from sources cited in *The United States in the World Economy* (U. S. Department of Commerce, Washington, 1943), pp. 201 and 203. Both series are in current dollars, conversion from other currencies being made at annual average rates of exchange on the dollar.

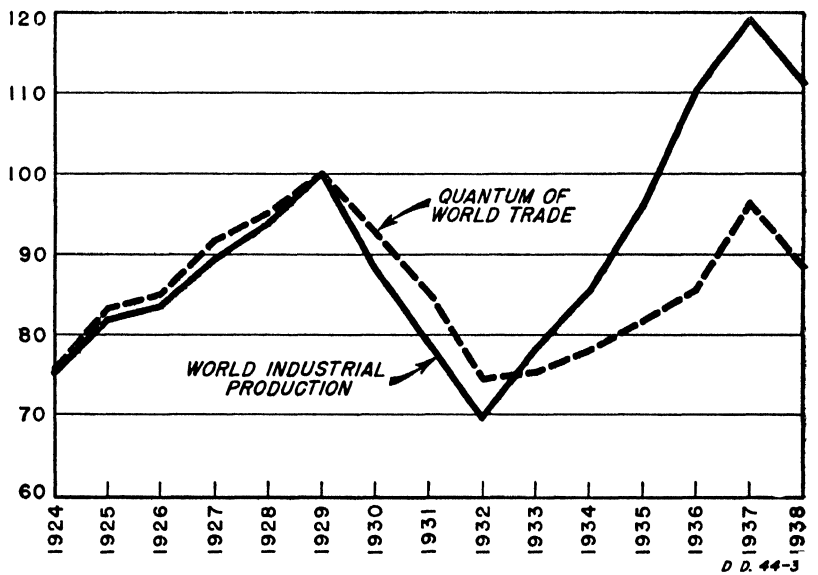
[2] In the United States, for example, the proportion of the working population engaged in the production of services described as "domestic, personal, professional" increased from 12.4 per cent. in 1860 to 23.7 per cent. in 1935, while the percentage engaged in trade, transportation and communication activities rose from 7.4 per cent. to 22.1 per cent. Colin CLARK: *The Conditions of Economic Progress* (London, Macmillan, 1940), p. 185.

[3] The more wealthy the world becomes the more important will such "invisible" items be in international exchange, and the more urgent will it be to perfect balance of payments statistics so that they, instead of the increasingly misleading commodity trade statistics, may be used as a matter of course in discussing the broad flow of international commerce.

many of them are of a sort which by their nature have to be performed locally. Thus, merchandise imports (and probably domestic merchandise transactions also, if we were to measure them) increase with income but not quite as fast as income.

Chart 14. World Industrial Production and International Trade[1]

(Index Numbers, 1929=100)



Fourth, the general economic breakdown of the early 1930's so disintegrated the world's trading system that imports fell more sharply than national incomes during the period of crisis and depression and then failed to recover their former percentage relation to national incomes in the subsequent recovery. This is evident in each of the charts for the separate countries, but it comes out much more clearly in chart 13, which shows the combined national incomes of twelve countries during the years 1924-38 and the combined value of their imports. From 1924 to 1929 imports and income rose at approximately the same rate. From 1929 to the bottom of the depression in 1932 income fell about 45 per cent., but imports fell more than 60 per cent. The subsequent recovery was no more rapid for imports than for income, with the result that

[1] LEAGUE OF NATIONS: *World Production and Prices, 1935-36*, 1936, p. 141; *World Production and Prices, 1938-39*, 1939, p. 103; *Review of World Trade, 1938*, 1939, p. 60. Industrial production for 1924 extrapolated on basis of series by Norman J. WALL: *Monthly Index of World Industrial Production, 1920-1935* (U. S. Department of Agriculture, 1936) (revised supplementary tables).

the aggregate imports of the twelve countries in 1937 represented only 10 per cent. of their aggregate incomes, whereas imports had been more than 13 per cent. of income in 1929.

Of course, the drastic fall in the total value of imports from 1929 to 1932 was partly the result of particularly severe drops in the prices of raw materials which make up an important part of international trade. That the aggregate value of imports had not recovered its old proportion to national incomes by 1937 is a reflection, however, of other influences which kept the physical volume of international trade from rising as rapidly as would industrial production. This is shown in chart 14, based on League of Nations indices. In the years 1924-29 the correspondence between growth in world industrial production and growth in the quantum of world trade was close. In the depression, trade fell with production, only slightly less violently. Thereafter it failed to keep pace in recovery, and although the quantum of world trade rose in 1937 almost to the 1929 level it did not move into new higher levels with production.

Evidently, influences set in motion by the violent world depression continued to hold back international trade even when income and production revived. National efforts to combat unemployment, to defend currency values, and to aid local producers led each country during the depression to cut down its imports from other countries, while its own exports were cut down by similar measures abroad. Local industries that could not justify themselves on grounds of long-run efficiency were encouraged to replace imports because it was thought that this would relieve unemployment or lessen the pressure on local income. Thus, a great wave of agricultural protectionism in the industrialised countries of Europe sharply reduced imports of wheat, pork, etc., from overseas in favour of a much more costly home product, while overseas countries, finding their agricultural markets shrinking, sought to aid their own people by shutting out various kinds of manufactured goods in order to replace them by a more costly home product. The result was to stop movements of trade both ways and to lower the general efficiency of production. The quotas, higher tariffs, exchange controls, discriminatory trade bargains, and other discouragements to international commerce used in this process, and the ill-adapted industries requiring protection, did not pass away automatically with recovery.

Past experience clearly supports the view that economic development designed to increase the efficiency of production and to raise income and living standards will make for expanding markets and more trade. Of course, the economic tendency for imports

to rise when income rises may be checked by political decisions. A desire for strategic self-sufficiency in anticipation of war, or the influence of internal pressure groups seeking to shield themselves from competition, or the desperation born of a general depression in industry and trade, can create strong counteracting tendencies. World development programmes on a large scale would themselves, however, help in some measure to prevent these negative influences from becoming strong enough to dominate the situation.

Shifts in the Character of Trade

As the total external trade of developing areas moves upward with mounting production and income, the *character* of that trade is likely to undergo considerable change. Corresponding shifts in the trade of established industrial areas become necessary, together with changes in their types of production.

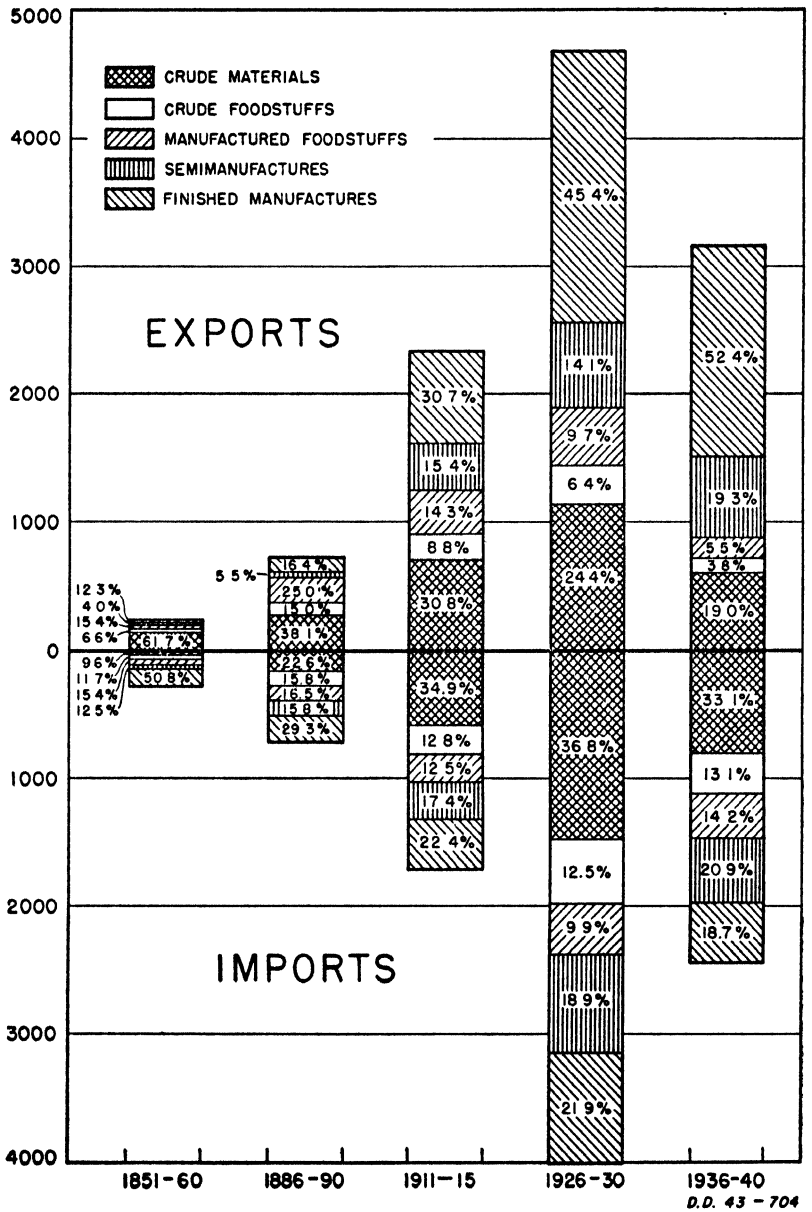
In general, the experience has been that as countries develop and modernise their production they import more of all the major categories of commodities. They import more foodstuffs, more raw materials, more semi-manufactured and more finished goods, but, as might be expected, imports of raw materials and partly finished goods increase in *relative* importance. On the export side, experience shows that a country moving from a less developed to a more advanced stage of economic development begins to sell more finished and partly finished goods abroad. It is likely, however, also to increase its exports of crude materials and foodstuffs, though these may decrease in *relative* importance.[1]

It is a common error to suppose that economic development which increases the ability of a country to carry on modern industrial processes must ordinarily lead to a decrease in its imports of manufactured goods. By and large, just the opposite has been true in the past. Of course, the new and more diversified production of the developing country does replace some goods formerly imported. But rising incomes make it possible to buy other kinds of goods abroad that the people of the developing country have not been able to enjoy before. Also, imports of equipment and repairs for industrial plants and utilities are likely to increase, while the development of a new type of international specialisation by stages of manufacture is likely to show itself in rising imports of partly finished "semi-manufactures".

[1] This refers to countries in a relatively early stage of economic development. At a later stage the proportions among the various classes of imports and exports may shift in other and more complex ways. See below on recent increases in British imports of manufactures and on exchanges of semi-manufactures. Obviously, all countries at once cannot increase the ratio of raw to manufactured products on the import side and decrease it on the export side.

Chart 15. United States Exports and Imports by Economic Classes, Annual Averages for Selected Periods from 1851 to 1940[1]

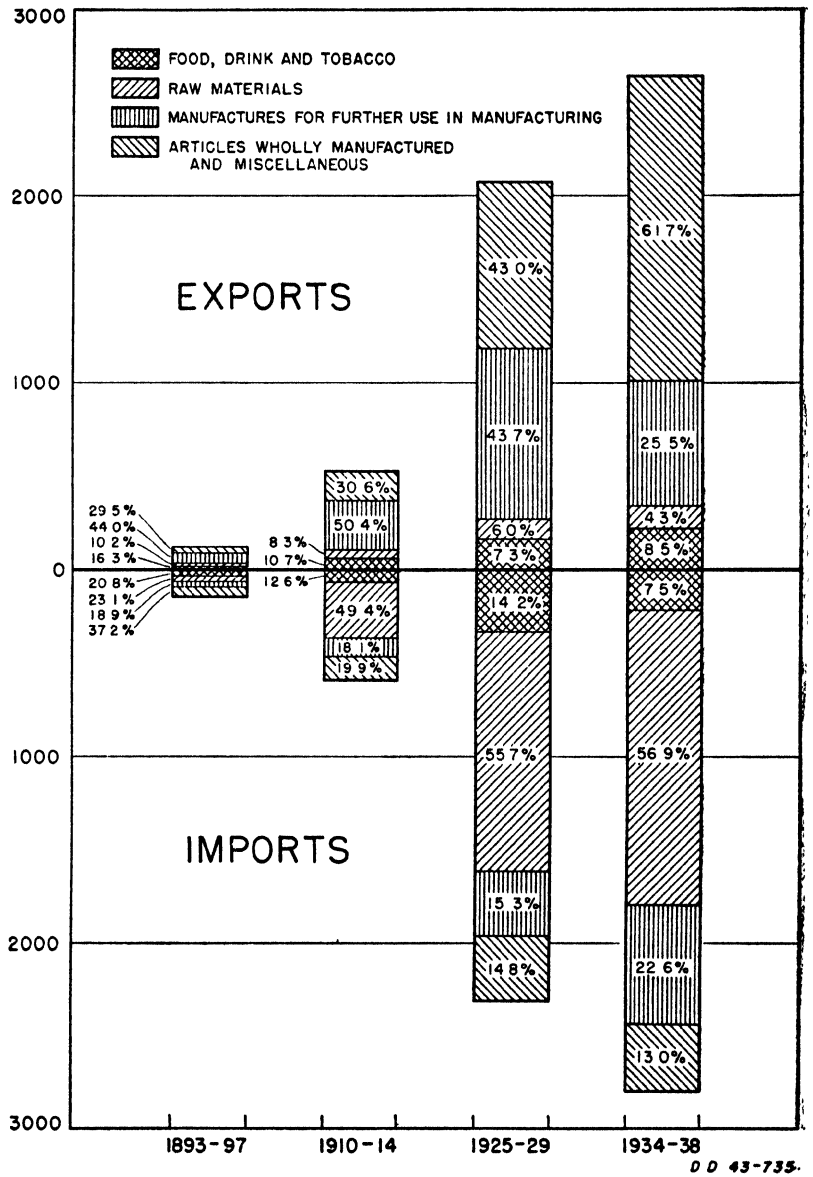
(Millions of Current Dollars and Percentage Distribution)



[1] U. S. DEPARTMENT OF COMMERCE: *Statistical Abstract of the United States, 1941* (Washington, 1942), pp. 534 and 535.

Chart 16. Exports and Imports of Japan by Economic Classes,[1] Annual Averages for Selected Periods from 1893 to 1938[1]

(Millions of Current Yen and Percentage Distribution)



[1] TANZAN ISHIBASHI (ed.): *The Foreign Trade of Japan: A Statistical Survey* (Tokyo: issued by the *Oriental Economist*, 1935), pp. 450 and 451, and DEPARTMENT OF FINANCE: *The Annual Return of the Foreign Trade of Japan*, (Tokyo), various years.

The trend in imports of manufactured goods into the United States, Germany, France, Great Britain, and Switzerland during the years between 1860-80 and the late 1920's—a period when all these countries were progressing into an advanced stage of economic development with highly competent modern industries—has been explored by a German investigator. He found that all these countries increased their imports of manufactures, both in value and volume. In several cases, but not all, the imports of manufactures increased less rapidly than the imports of other kinds of goods, with the result that the *percentage* of imports made up of manufactured goods declined.[1]

Chart 15 and table 12 show some of the shifts in United States trade composition which came about during three quarters of a century of economic growth and industrial development. The tendencies mentioned above are manifest. All the major categories of imports and exports increased with the great increase in size and productivity of the American economy, but important changes in the make-up of that trade took place by means of striking differences in the respective rates of increase. The national income of the United States (in current dollars, not allowing for price changes) was 22 times as high in the years 1926-30 as in the 1850's. Population was 4.5 times as great, and value added by manufacture was 43 times as great. Imports of finished manufactures and exports of crude materials increased 6-fold and 8-fold in value. But much larger increases came in imports of crude materials and semi-manufacture (54 times and 21 times, respectively) and in exports of finished manufactures and semi-manufactures (an expansion of 74 times and 71 times, respectively). United States tariff policy, which was particularly directed against imports of finished goods and left most raw materials relatively free of duty, undoubtedly promoted a more pronounced shift in the composition of imports than would have taken place otherwise.

TABLE 12. U. S. ECONOMIC GROWTH AND SHIFTS IN EXTERNAL TRADE: 1926-30 COMPARED WITH 1851-60*

	Approximate ratio of increase
National income (current value)	22 times
Population	4.5 "
Value added by manufacture	43 "
Value of total imports	14 "
Value of imports of crude materials	54 "
Value of imports of semi-manufactures	21 "

[1] Walther HOFFMANN: *Stadien und Typen der Industrialisierung* (Jena, Fischer, 1931), pp. 168-70.

	Approximate ratio of increase
Value of imports of crude foodstuffs	15 times
Value of imports of manufactured foodstuffs	9 "
Value of imports of finished manufactures	6 "
Value of total exports	19 "
Value of exports of finished manufactures	74 "
Value of exports of semi-manufactures	71 "
Value of exports of crude foodstuffs	20 "
Value of exports of manufactured foodstuffs	13 "
Value of exports of crude materials	8 "

* Calculated from data as to income in Robert F. MARTIN, *op cit.*, pp 6-7 (average of two years, 1849 and 1859, compared with average of 1926-30 inclusive) and as to other quantities in U. S. DEPARTMENT OF COMMERCE. *Statistical Abstract of the United States, 1941*

The changes in the make-up of Japanese imports and exports which accompanied the rapid growth of Japan's economy in the four decades from the 1890's to the 1930's are shown in chart 16 and table 13. Imports of manufactured articles and of food, drink and tobacco increased in total value, but not nearly in proportion to other increases. In fact, if one makes allowance for price changes, the trend of physical volume of imported manufactures is doubtful, varying at different times during the period. Imports of raw materials and of partly manufactured goods increased most noticeably. On the export side, the value of raw materials increased, but relatively slowly, while the great increases were registered by exports of manufactured and partly manufactured articles. Some writers have suggested that characteristics of the Japanese social system may have prevented the rise of production and income from exer-

TABLE 13. JAPANESE ECONOMIC GROWTH AND SHIFTS IN EXTERNAL TRADE: 1934-38 COMPARED WITH 1893-97[1]

	Approximate ratios of increase
National income (current value)	52 times
Population	1 7 "
Value of total imports	19 "
Value of imports of raw materials	47 "
Value of imports of manufactures for further use in manufacturing	23 "
Value of imports of food, drink, and tobacco	6.9 "
Value of imports of articles wholly manufactured and miscellaneous	6.7 "
Value of total exports	21 "
Value of exports of articles wholly manufactured and miscellaneous	45 "
Value of exports of manufactures for further use in manufacture	12 "
Value of exports of food, drink, and tobacco	11 "
Value of exports of raw materials	9 "

[1] For source of income and trade data, see footnotes to charts 9 and 16. Population data: *Japan Year Book*, 1940-41, p. 36 and E. B. SCHUMPETER (ed.): *The Industrialization of Japan and Manchukuo, 1930-1940* (New York, Macmillan, 1940), p. 72.

cising its full potential effect on the living standards of the masses of the people, and that this may have prevented expansion of certain kinds of finished imports for popular consumption.

Japan's development illustrates a complex trade specialisation, both by commodities within the broad groups and geographically. Japan imported manufactured goods from western Europe and the United States, particularly the higher-priced, better-quality goods, including capital goods. It also imported large quantities of raw materials, such as cotton. Japan exported manufactured goods to Asia and Africa, especially lower-priced goods of the sorts demanded by the low-income groups of those areas. Had there been a high, sustained level of effective demand in the world—that is, had the rate of investment not fallen so disastrously at the end of the 1920's—this particular characteristic of Japanese trade development might have widened the market for western goods, directly through new Japanese demands, and also indirectly through the tapping of new African and Asiatic and other low-income demands.

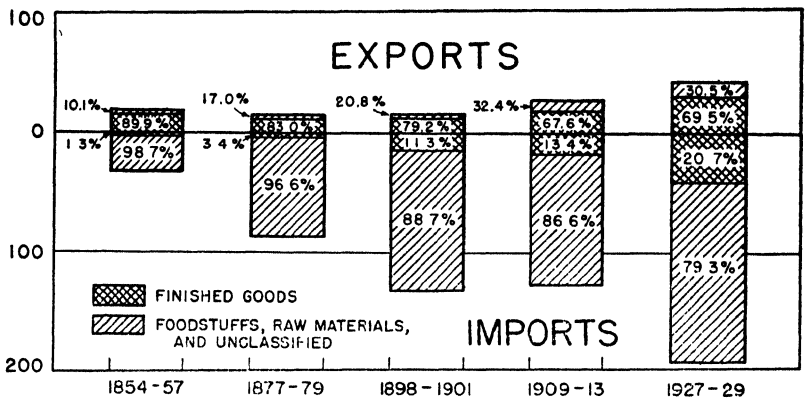
It is instructive to notice some aspects of the trade between Japan and the United States as both countries developed economically and as Japan rose from an industrially backward to an industrially advanced country. The trade increased enormously in total value, American exports to Japan rising from 8 million dollars in 1873 to 58 million in 1913 and to 289 million in 1937, while American imports from Japan rose from 9 million dollars in 1873 to 92 million in 1913 and to 204 million in 1937.[1] The principal item of trade in each direction was, interestingly enough, a raw material—raw silk from Japan to the United States, raw cotton from the United States to Japan. The fact that silk came to the United States in an unmanufactured state despite Japan's industrial advancement may have been due, however, to the American tariff. Cotton exports from the United States to Japan rose steadily throughout most of the period, reflecting the growth of the Japanese textile industry. Wheat exports from the United States to Japan rose and later fell. Exports of machinery rose steadily until 1924, after which they fell rapidly as Japan became able to build more of her own machinery. Automobile exports, however, which represented a more complex, mass-produced product in which America was pre-eminent, continued to increase in value. Thus, as Japanese production and income grew, some American products were more in demand than before and others less, although the total of Japanese purchases from the United States increased very greatly.

[1] Annual Report of the Bureau of Statistics, U. S. Treasury Dept., on the Commerce and Navigation of the United States, for fiscal year ending 30 June 1873; U.S. DEPARTMENT OF COMMERCE: *Foreign Commerce and Navigation of the United States*, 1940 and 1941.

The new competition in the textile industry offered by Japan's combination of abundant and cheap labour with rapidly modernising production methods raised severe problems of adjustment for

Chart 17. United Kingdom's Exports to and Imports from the United States, Annual Averages for Selected Periods from 1854 to 1929[1]

(Millions of Current Pounds and Percentage Distribution)



certain established industrial areas, especially Lancashire. This long established centre of the British textile industry proved to be particularly vulnerable and relatively inflexible. Similar problems were raised, but not by Japanese competition, in the textile towns of New England as new textile centres developed in the southern part of the United States. Both in Lancashire and in New England the problem was the same, though one was caused by a foreign and the other by a domestic development. In both cases industrial adaptation leading to more diversified production became necessary. Also, in both cases the problem of finding new lines of production in which to expand was greatly intensified by the onset of the world depression of the 'thirties. Here is the most difficult economic problem created by the general process of economic development. How can workers and capital shift out of certain established lines of production that are not fully able to stand up to the new competition, and how can new lines of production be found that will take advantage of the expanding opportunities and bigger markets that should be offered by the same process of development? This will be discussed in later chapters.

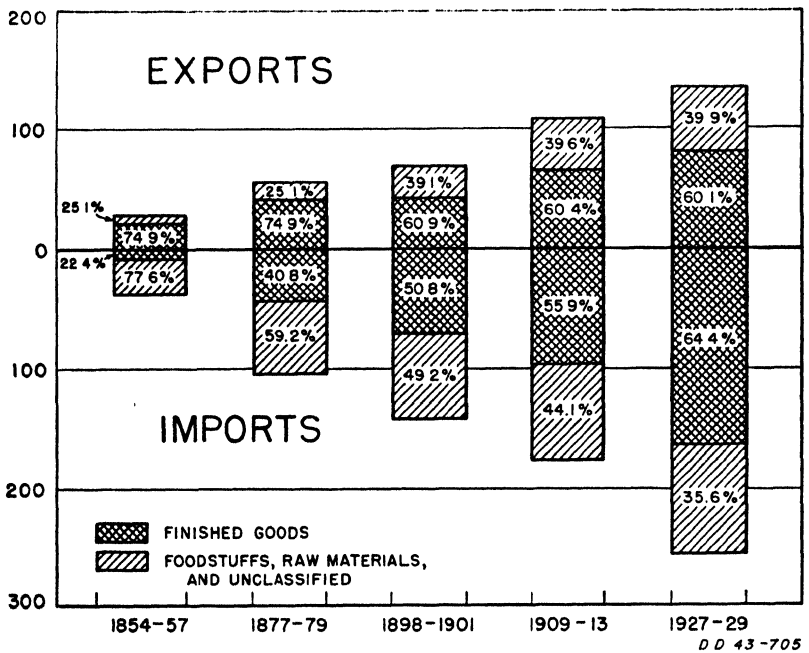
The make-up of Canada's external trade in 1929 and 1900 is compared in table 14. Here again, economic development bring-

[1] SCHLOTE, *op. cit.*, tables 33 and 34, pp. 91 and 92.

ing an increase in production and income was accompanied by expansion in all the principal classes of imports and exports. While the value of Canada's own manufacturing production was increas-

Chart 18. United Kingdom's Exports to and Imports from "Industrial Europe", Annual Averages for Selected Periods from 1854 to 1929[1]

(Millions of Current Pounds and Percentage Distribution)



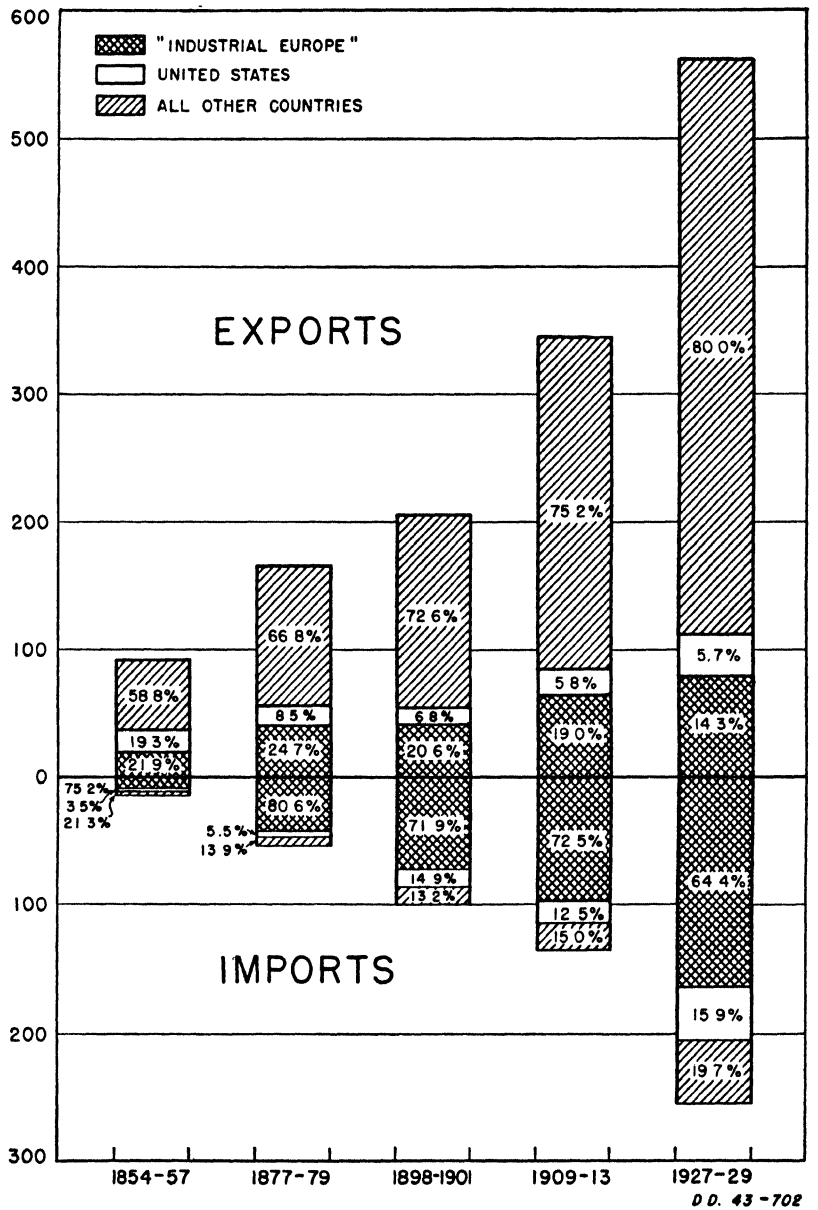
ing about 8 times, the value of its imports of fully and chiefly manufactured goods was also rising nearly 8 times, in this case faster than the value of other classes of imports. The rise was accounted for by a wide variety of commodities, no individual item or small group being chiefly responsible. Among the manufactured articles importation of which increased markedly were machinery, automobiles and parts, petroleum products, farm implements, electrical apparatus, alcoholic beverages, books, cotton and woollen goods, and paper.

In a recent pamphlet on *Industrialization and Trade*, Mr. A. J.

[1] SCHLOTE, *op. cit.*, tables 33 and 34, pp. 91 and 92. "Industrial Europe" as used in this chart comprises the following countries: Germany, Netherlands, Belgium-Luxemburg, Switzerland, Austria-Hungary and the Succession States, France and Italy.

Chart 19. United Kingdom's Exports and Imports of Finished Goods in Trade with "Industrial Europe", the United States, and All Other Countries, Annual Averages for Selected Periods from 1854 to 1929[1]

(Millions of Current Pounds and Percentage Distribution)



[1] SCHLOTE, *op. cit.*, tables 33 and 34, pp. 91 and 92.

TABLE 14. CANADIAN ECONOMIC GROWTH AND SHIFTS IN EXTERNAL TRADE: 1929 COMPARED WITH 1900*

	Approximate ratio of increase
National income (current value)	at least 4.5 times
Gross value of manufactured products	8.1 "
Population	1.9 "
Value of total imports	7.2 "
Value of imported fully- and chiefly-manufactured goods	7.8 "
Value of imported raw materials	6.7 "
Value of imported partly-manufactured goods	5.2 "
Value of total exports	6.6 "
Value of exported partly-manufactured goods	7.1 "
Value of exported fully- and chiefly-manufactured goods	6.9 "
Value of exported raw materials	6.1 "

* National income figure for 1903 (1900 not available) from Sir Robert GIFFEN: "The Wealth of the Empire, and How it Should be Used", in *Journal of the Royal Statistical Society*, September 1903, p. 583. Figure for 1929 from *Monthly Review of the Bank of Nova Scotia*, Sept. 1940. Gross value of manufactured products from *Canada Year Book, 1940*, p. 397. Figure for 1900 not exactly comparable with that for 1929. Population from *Canada Year Book 1940*, p. 103. Values of imports and exports from *Trade of Canada Fiscal Year Ended March 31, 1939*, p. 856. Data for fiscal years ended 31 Mar. 1900 and 1930.

Brown presents data for Australia in the years 1915 and 1938 from which the ratios in table 15 have been calculated.[1] In Mr. Brown's interpretation, the increase in industrial production which took place (outside agriculture and the food industries) did not

TABLE 15. AUSTRALIAN ECONOMIC GROWTH AND SHIFTS IN EXTERNAL TRADE: 1938 COMPARED WITH 1915*

	Approximate ratios of increase
National income produced (current values)	2.6 times
Population	1.4 "
Value of industrial production (excluding double counting and the food industries)	3.2 "
Home-produced materials, etc., included	3.0 "
Imported materials, etc., included	2.8 "
Imports of finished manufactures	1.5 "
of which:	
plant and equipment	2.2 "
consumable goods	1.2 "
Total imports	2.2 "
Exports of manufactures and semi-manufactures	3.0 "

* Calculated from data (except population) given in A. J. BROWN: *Industrialization and Trade: The Changing World Pattern and the Position of Britain* (London, Royal Institute of International Affairs, Oxford University Press, 1943), p. 50. Population source: Australia, Commonwealth Bureau of Census and Statistics, Bulletin No. 58: *Demography 1940*.

[1] See full citation in footnote to table 15. The sources of the data are not indicated in Mr. Brown's pamphlet and an examination of Australian official publications has not revealed them. If the figures were available, it might be better to take some other base year than 1915, for imports in that year appear to have been smaller than usual owing to the effects of the First World War.

contribute greatly to the growth of Australian national income. In other words, "industrialisation", as distinguished from broad economic development of the lines of production offering the most promise in terms of income, was being pushed further in Australia than the income results justified. "Output per head (measured at world prices) in the non-food industries was almost certainly not greater than that in agriculture . . . " The shift towards non-agricultural, non-food industries therefore had a more pronounced tendency to replace certain kinds of imports than to increase income. This helps to explain why Australian importation of manufactured consumable goods rose only slightly in value and probably fell in volume over the period concerned. The author continues:

> In considering what effect industrialisation is likely to have on the external trade of any given country, therefore, the first question one must ask is whether—and how much—industrialisation is likely to affect national income. It is not merely a matter of the relative *per capita* productivities of industrial and non-industrial occupations in the country . . . in the longer run one is bound also to take into account the very great effects which it may have, in favourable cases, on the possible expansion of population and the possibility, with total population at any given level, of maintaining and improving the average *per capita* output in primary occupations. One must ask, in fact, whether the country is an Australia or an Argentina, in which industrialisation would not greatly expand income, or, on the other hand, an overpopulated Japan, or an industrially well-endowed United States where it would strongly promote the expansion of purchasing-power. One has then to ask whether the country concerned is one of limited resources which, like Japan, would have to draw the materials for its new industry largely from abroad, or a United States or a Soviet Union with a great variety of resources to draw upon at home. Finally, one must ask how far the products of the new industry are likely, on the one hand, to find their way abroad, like Japanese cotton goods and American cars, or, on the other, to be designed purely to supply the home market with goods which would otherwise be imported.[1]

Britain's Trade Adjustments as Other Countries Developed

Great Britain, which led other countries in the adoption of modern industrial methods, has seen many nations take over and even improve the production techniques in which it pioneered. Its trade experience has interest, therefore, as one instance of trade shifts in an older industrial country under the influence of the changing character of trade with developing regions.

Certain aspects of the changing geographical distribution of British trade between 1854 and 1929 are shown in charts 17, 18 and 19. Direct exports to the United States, as chart 17 shows, were not large, and they declined in the latter part of the nineteenth century, although they somewhat more than doubled in

[1] A. J. Brown, *op. cit.*, pp. 53-4.

value over the period as a whole. The import demands created by American economic development were not, for the most part, demands for the types of products exported by Great Britain, and the American tariff further held direct exports from Great Britain to the United States in check. The great increase in United States purchases of industrial raw materials and other supplies from other parts of the world was probably more important for Great Britain. This provided purchasing power that indirectly, through multilateral trade channels, helped to enlarge the market for British goods in the "all other countries" of chart 19.

The movement of goods in the other direction—that is, British imports from the United States—was larger. It increased 6-fold between 1854-57 and 1927-29. Economic development in the United States was instrumental in raising British real income by providing large quantities of cheap foodstuffs (wheat, etc.) and raw materials (cotton, etc.). The development of manufacturing industry in the United States led to a more complex type of specialisation in which finished goods moved from the United States to Great Britain as well as in the opposite direction: British imports of finished goods rose from less than 2 per cent. of total imports from the United States to more than 20 per cent.

British exports to the countries of western Europe that were advancing rapidly towards a high level of economic and industrial development increased 5-fold over the period, from 27 million pounds in 1854-57 to 133 million in 1927-29. These European countries bought larger amounts of finished goods from Great Britain as they developed (80 million pounds sterling against 20 million), but they expanded their purchases of British raw materials and foodstuffs relatively more (53 million pounds sterling against 7 million). In the other direction, there was an increase in the sale of finished goods and of raw materials and foodstuffs by the same European countries to Great Britain, but the expansion was greatest in finished goods.

Chart 19 shows that exports of British finished goods, although they increased over the period to the countries of "Industrial Europe" and to the United States, increased much more rapidly to the other countries of the world. These other countries were also undergoing economic expansion, stimulated to a considerable extent by the growing demands of the industrialising countries, but their development was more in the field of primary production than in manufacturing. Thus, their rising income offered a more direct market for the traditional British manufactured goods, with less tendency for new local production to be substituted for imports either by straight competition or by protectionist measures in

favour of local undertakings. But the economic development of these "all other countries" was not remaining exclusively in the field of agrarian or primary production, as is shown by the fact that at the end of the period they were providing Great Britain with finished goods to the value of 50 million pounds sterling, as compared with 2.4 million pounds at the beginning.

This shifting pattern of British trade in the 75 years before the world depression illustrates the importance of flexible *multilateral* adjustment in the flow of trade as economic developments of different types and at different rates of speed take place in various regions.

In its commodity make-up, British export trade in the 1860's was largely concentrated on textiles and apparel (more than 60 per cent. in value). Much of the remainder consisted of other consumable goods. During the next twenty years exports grew rapidly without changing much in composition. The outside world was experiencing a great development of agricultural production and of railways, but industrialisation, in the sense of the development of manufacturing, had not progressed very far. From the late 'seventies or early 'eighties, however, the pressure of industrialisation elsewhere was more apparent.

> Textile and apparel exports had continued to increase absolutely, but, by about 1910, were only some three eighths of the total; coal, chemical, machinery, and vehicle exports had made enormous advances; but exports of manufactured and semi-manufactured iron and steel had begun to feel the keen competition of Germany and the United States, and, though still increasing in volume, had fallen relatively to total exports.[1]

The shifts in the composition of British export trade became even more clear after the First World War. Between 1910 and 1938 the proportion of textiles and apparel fell from about 38 per cent. to less than 25 per cent. The proportions of iron and steel manufactures and semi-manufactures and of coal declined somewhat, under the influence of new competition and technological changes such as the rise of fuel oil. "On the other hand, exports of machinery, electrical appliances, vehicles, and (to a smaller extent) chemicals increased in relation to total exports—altogether, they rose from less than 14 per cent. of them in 1910 to not far short of 40 per cent. in 1938.[2]

These shifts are of the sort that one would expect on the part of an advanced industrial country in a world where other countries are developing rapidly and where the arts of manufacture, especially the older and simpler forms of manufacture, are being widely

[1] A. J. BROWN, *op. cit.*, pp. 59-60.
[2] *Ibid.*

mastered. Some evidence presented later in this chapter suggests that it would have been better for Great Britain if there had been an even more rapid shift towards the newer lines of production and export. Indeed, there was considerable urging from expert opinion in Great Britain itself in endeavours to hasten the adaptive process. Thus, a leading economist, Alfred Marshall, said 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 to 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 must continue to diminish; and it is not to be reckoned on as a very important element in the future. England's place among the nations in the future must depend on the extent to which she retains industrial leadership. She cannot be the leader, but she may be a leader.
>
> The economic significance of industrial leadership generally is most clearly illustrated just now by the leadership which France, or rather Paris, has in many commodities which are on the border-line between art and luxury. New Parisian goods are sold at high prices in London and Berlin for a short time, and then good imitations of them are made in large quantities and sold at relatively low prices. But by that time Paris, which had earned high wages and profits by making them to sell at scarcity prices, is already at work on other things which will soon be imitated in a like way. Sixty years ago England had this leadership in most branches of industry. The finished commodities and, still more, the implements of production, to which her manufacturers were giving their chief attention in any one year, were those which would be occupying the attention of the more progressive of western nations two or three years later, and of the rest from five to twenty years later. It was inevitable that she should cede much of that leadership. . . It was not inevitable that she should lose so much of it as she has done.[1]

The Committee on Industry and Trade (Balfour Committee), which reported in 1929 after an extensive investigation into "the means of restoring the competitive power of British industry and trade without impairing the standard of living", laid great stress on what it called "industrial mobility". There was urgent need, the Committee said, among employers and managers and also among workers and their organisations,

> for a more vivid and intelligent appreciation of the importance of "mobility" using the term in its widest sense, to cover, not only actual transference whether industrial or geographical, but also a mental attitude towards changes of environment, and the power and will to react promptly to such changes.[2]

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[1] *Fiscal Policy of International Trade*, House of Commons Paper, No. 321, 1908, quoted in H. FRANKEL: "The Industrialization of Agricultural Countries", in *Economic Journal*, June-Sept. 1943, p. 193.

[2] *Final Report of the Committee on Industry and Trade*, Cmd. 3282, 1929, pp. 297, 300.

Mr. Alexander Loveday, in a discussion of "Britain and World Trade" argued that rigidity of production severely handicapped Great Britain in trade competition during the 1920's. As an economic mission to Argentina had observed, Great Britain had retained its position in some departments—particularly old established businesses—but in new departments of trade, such as aviation, road construction, and motor transport, it had been outdistanced. The same was true in such fields as radio and photographic apparatus, scientific instruments and agricultural machinery.

> It is on these new and growing industries that the prosperity of highly industrialised countries must ultimately depend. It is inevitable in a world that is growing richer . . . that the industries satisfying secondary needs—the smaller and the new industries— those which exist today and those which will come into being tomorrow—should constitute an ever-increasing proportion. The future lies with the countries whose whole economic organisation is the most mobile, with those which have the imagination to foresee future needs, the courage to scrap obsolete plant and the skill to adopt and adapt new inventions.[1]

Dynamic "New" Goods and the Position of the United States

Some of the older kinds of manufactured goods which the advanced industrial countries have been accustomed to offering on the international market will meet a relatively static or even falling demand as development proceeds elsewhere, while other kinds of manufactured goods will find a growing demand and expanding outlets. If an advanced trading country produces these more dynamic goods or can turn to their production its export prospects will be relatively favourable. If it insists, out of necessity or for lack of ingenuity and initiative, on trying to sell the old types of goods despite the new circumstances its trade is likely to fall behind.

An elaborate investigation of international trade trends in manufactured goods made by the German *Enquête-Ausschuss* provides the material for table 16.[2] This shows that the value of international trade in certain products, such as laces and embroideries and pianos, increased very little or actually decreased between 1913 and 1929. At the same time, international trade in cotton yarn, wearing apparel, toys, cotton cloth, and shoes increased moderately. Very high rates of increase (over 150 per cent.) were shown by such products as automobiles and tires, rayon, electrical communication devices, and phonographs.

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[1] A. Loveday: *Britain and World Trade* (London, Longmans, Green, 1931), pp. 170, 177.

[2] The co-operation of Dr. Gerhard Colm in connection with the materials that follow is gratefully acknowledged.

The exports of the advanced industrial countries differed considerably with respect to the proportions of rapidly increasing and slowly increasing goods that they contained. As table 17 shows, the bulk of British manufactured exports consisted in 1929 of merchandise which had experienced a relatively unfavourable development in international trade. 42 per cent. were of types which had increased by less than 75 per cent. since 1913, and only some 4 per cent. of British manufactured exports were in the class which had experienced an expansion of more than 150 per cent. The bulk of the manufactured exports of the United States, on the contrary, consisted of products having a most favourable development in international trade. 29 per cent. were in the class which had expanded more than 150 per cent. since 1913, and 39 per cent. more were types that had experienced at least a 75 per cent. increase in international trade. United States producers had a weaker comparative position in the traditional products and a stronger position in the new products. The United States had a "dynamic" advantage while Great Britain had a "traditional" advantage. Germany, as the table shows, held a middle position.

TABLE 16. EXPANSION OF INTERNATIONAL TRADE IN SELECTED MANUFACTURED PRODUCTS, 1913 TO 1929, WITH PERCENTAGE OF TRADE IN EACH SUPPLIED BY GREAT BRITAIN, GERMANY AND UNITED STATES[1]

Products (examples)	Total trade of the most important countries		Nominal increase of total trade from 1913 to 1929 percentage	Percent. of exports of these products in 1929 from Great Britain, Germany, U S A.		
	1913	1929				
	in million marks					
Laces and embroideries	480	239	Under 25	14.6	19.4	0.5
Pianos	65	56		5.9	65 1	14.2
Cotton yarn	745	903	26–50	46.9	3 8	7.2
Wearing apparel	658	906		20 4	20.3	6 2
Toys	140	192		8 0	63.6	7.1
Cotton cloth	3039	4713	51–75	42 9	3.2	7.1
Shoes*	235	370		27 9	7.2	13.0
Steel mill products	2012	3268	76–100	25 8	29.0	20.0
Optical and mechanical products*	132	239		12.3	48.7	24.6
Machines	2537	5655	101-150	19.5	25.3	35.8
Clay and china products	250	523		22.1	60.3	4.6
Tires	200	510	More than 150	13.7	4.9	31.7
Automobiles	554	3109		5.7	2.2	74.0
Rayon and rayon yarn	35	390		13.9	21.4	0.0
Electrical communication devices	56	813		10.4	26.2	31.3
Phonographs*	25	125		40.8	10.2	26.9

[1] *Der deutsche Aussenhandel unter der Einwirkung Weltwirtschaftlicher Strukturwandlungen*, cited earlier, II, 157.

* 1928 figures used.

TABLE 17. MANUFACTURED EXPORTS OF GREAT BRITAIN, GERMANY AND UNITED STATES IN 1929: PERCENTAGE DISTRIBUTION INTO COMMODITY GROUPS BY RATE OF TRADE EXPANSION[1]

Percentage in commodity groups expanding in international trade, 1913-1929, by:					
Less than 25 per cent.		26-75 per cent.	76–150 per cent.	More than 150 per cent.	Total for which data available
Great Britain	2 1	**40 0**	*33.5*	4 3	79.9
Germany	2.1	*25.2*	**55 3**	4.5	87.1
U. S. A.	1.0	16.1	**38.8**	*28.6*	84 5

[1] *Der deutsche Aussenhandel unter der Einwirkung Weltwirtschaftlicher Strukturwandlungen*, II, 156.

The export of the traditional products, especially of textiles, was most subject to replacement by home production in newly developing countries which were acquiring manufacturing industries. In this way, for example, British textile exporters lost business in the Far East. The newer export products of the United States, on the other hand, were subject to great expansion in a time of prosperity in which many countries were undertaking to improve their equipment for production and communication (machinery, automobiles, communication devices, etc.) and in which rising standards of living were multiplying the demand for "high income" goods (radios, phonographs, etc.).

The United States was well equipped to supply the newer products because of its rapid strides in the quick application of a rapidly advancing technology to industry and because its highly developed mass market for such products encouraged methods of quantity production at low cost per unit. A "dynamic" advantage of this kind in any particular product, however, lapses as other countries gradually succeed in catching up, unless it is constantly renewed by new progress. The dynamic advantage consists in "keeping one jump ahead of the game".

The United States is probably in a better position than any other trading nation to gain expanded markets as a result of rapid economic development and rising income levels in the rest of the world. American goods are typically high-income goods and goods needed in developing production. Its "comparative advantage" in world trade is a dynamic advantage, which has its greatest scope when the trend of development and income is sharply upward. Thus, it so happens that the country whose governmental policies and business decisions will have the greatest influence in determining whether or not there will be vigorous economic development throughout the world is also the country whose export trade pros-

pects are most favourably influenced by world economic development. This coincidence might play an important part in shaping the future.

Development and International Trade: More Complex Specialisation

What will happen as more and more countries acquire modern capital and modern techniques? Will international trade dry up? A substantial part of international trade in the past has involved, directly or through multilateral channels, countries that were in an agrarian or primary-producing stage of development. When these countries also become able to produce finished goods will there still be trade, and if so what kind?

Part of the answer is that if economic development goes forward along lines of "comparative advantage"—that is, if the lines of production developed in new countries are those which will yield them the greatest increase of income—not all countries will engage heavily in manufacturing, and certainly not all regions even within the highly industrialised countries will cease to specialise in agricultural or other non-manufacturing types of production.

Another part of the answer is that there is room for an enormous amount of specialisation of a complex but highly beneficial and profitable type *within* and *cutting across* broad classifications like "manufactures", "raw materials" and "foodstuffs". Unless there are such restrictive trade barriers as to prevent product specialisation, a lively trade in manufactured goods will move both ways, between different countries, as will raw materials, articles in various stages of semi-manufacture, and services. The higher income levels achieved by economic development will provide the increased volume and variety of demand to support this more sophisticated type of specialisation and exchange.

A certain type of superficial reasoning leads to the conclusion that two countries both possessed of modern capital and modern techniques have little or no economic reason to exchange products. If this were sound, then why should some of the most heavily used railway lines in the world connect Ohio, Illinois and New York? All are "industrial" States and might be regarded as "non-complementary" in climate and in similarity of industrial advancement. It is evident that in the absence of artificial barriers to trade they have developed a highly complex "complementarity"—not one based on anything so simple as exchange of raw materials and foodstuffs for manufactured goods, but of specialised individual plants which cater to the needs of more than one area, of specialisation

by stage of manufacture with partly processed goods flowing from one region to the other, and of specialisation along agricultural and mineral lines indicated by variations in natural resources. The example of trade between Canada and the United States has been mentioned above.

Economic advancement means not only higher productivity and income and hence higher real purchasing power for domestic and foreign goods, but it also means a tremendous *diversification* of consumption and of commodities needed in the process of production. In every subdivision of those misleadingly simple categories "manufactured goods" and "raw materials" there are lumped together literally thousands of varieties and qualities to fit specialised purposes and tastes and different purses. Countries frequently import and export what appear to be the same commodities:

> Germany, for example, exports watches and clocks of inferior quality and imports the same of higher quality (the total value of exports exceeding that of imports), whereas the United Kingdom exports watches of high quality and imports watches of low quality (the value of exports being negligible as compared with the value of imports). Germany exports electrical machinery of a superior quality and imports the same of an inferior quality, and the U. K. exports electrical machinery of an inferior quality and imports the same of a superior quality.[1]

The stage of technological advance will not be the same in all countries. For a long time the countries where modern industrial processes are new will be learning to produce manufactured products one by one; there will be many goods that they will not be equipped to produce efficiently. For example, while Japan was learning to produce cotton textiles it had to import the complicated high-quality machinery, and other countries will be in this same position with regard to many types of products consumed by a population with rising income. In many specialities they will still lag behind those countries which now are in the lead, if the latter continue to progress and to develop newer and better capital and consumption goods.[2]

The tendency to classify countries into "agricultural" or "raw material" countries on the one hand and "industrial" countries on the other will become still less justifiable than it is today as more and more countries acquire a modern and diversified pattern of production. Is the United States a raw material or an industrial country? As a matter of fact, it is both. Industrialisation has been a feature of its economic development and has brought a *relative* shift in production and exports away from raw materials and towards manufactured goods, but the production and export of

[1] H. FRANKEL, *op. cit.*, p. 195.
[2] *Ibid.*, p. 196.

raw materials has also expanded very greatly in *absolute* terms. Raw materials and foodstuffs, as well as manufactured goods, are produced by efficient, modern, "industrial" methods.

The economic tendency of the highly developed countries to import as well as to export many kinds of manufactured goods as other countries become able to supply manufactured specialities (a tendency likely to be resisted by protectionist influences) is illustrated in Great Britain. In the period 1921-25 Great Britain's imports of articles wholely or mainly manufactured were 45 per cent. as large as its exports of articles in the same classification. In 1926-30 this percentage was 59, in 1931-35 it was 62, and in 1936-39 it was 66. Thus, Great Britain "becomes also a heavy importer of manufactured goods, mainly of different quality and design, and the nineteenth century's conception of international trade based on the exchange of manufactured goods for raw materials and foodstuffs is retreating more and more into the background".[1]

A recent study divides the import and export trade of many countries into foodstuffs and raw materials on the one hand and manufactured products on the other.[2] A determination is then made of the extent to which, in the case of each country, manufactured exports may be considered to provide the external purchasing power with which to pay for manufactured imports. Imports of raw materials and foodstuffs are similarly matched against exports of raw materials and foodstuffs. To the extent that imports as a whole exceed exports as a whole, or *vice versa*, the difference represents an exchange of commodities against services and other so-called "invisible" items in the balance of payment. After these matchings have been made, the amounts which it has not been possible to offset are put down as representing the amount of trade that can only be accounted for by exchange of manufactures against raw materials and foodstuffs.

This method was applied to the trade of 47 countries, including approximately 92 per cent. of all international trade, for the years 1925 to 1937. The results for three selected years are shown in table 18. As the table shows, two thirds of all international trade can be accounted for in other ways than by the "traditional type of exchange" of manufactured goods against raw materials and foodstuffs.

The same study comments on the device sometimes adopted of dividing international trade into statistical categories based on

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[1] H. FRANKEL, *op. cit.*, p. 201.

[2] Albert O. HIRSCHMAN: "The Commodity Structure of World Trade", in *Quarterly Journal of Economics*, Aug. 1943, pp. 565-595.

TABLE 18. ESTIMATED PERCENTAGE DISTRIBUTION OF INTERNATIONAL TRADE ACCORDING TO THE VARIOUS TYPES OF INTERCHANGE[1]

	1925	1929	1937
Commodities against services (so-called "invisible" items)	13.9	9.3	14.7
Foodstuffs and raw materials against foodstuffs and raw materials	39 6	38.3	34.8
Manufactures against manufactures	17.2	19.4	17.2
Manufactures against raw materials and foodstuffs	29.3	33 0	33.3
Total	100.0	100.0	100.0

[1] HIRSCHMAN, *op. cit.*, p. 574.

distinctions between "agricultural" countries and "industrial" countries. See, for example, table 19. Presentations of this sort can be very misleading if one assumes that trade between "industrial" countries is the same thing as exchange of manufactures against manufactures, or that trade between the two different types

TABLE 19. INTERNATIONAL TRADE DIVIDED INTO TRADE BETWEEN VARIOUS TYPES OF COUNTRIES[1]

	Foreign trade between:		
Year	"Agricultural" countries	"Industrial" countries	"Agricultural" and "industrial" countries
1913	10.7	29.2	58.8
1925	11.5	25.0	62.2
1929	12.0	23.9	62.6

[1] HIRSCHMAN, *op. cit.*, p. 577, quoting from Institut für Weltwirtschaft und Seeverkehr, "Die Aussenhandelsentwicklung und das Problem der deutschen Ausfuhrpolitik", in *Weltwirtschaftliches Archiv*, Vol. XXXVI (July 1932), p. 34.

of countries is merely another expression for exchange of foodstuffs and raw materials against manufactured goods. Historical comparisons on this basis are particularly dangerous if one forgets that "agricultural" and "industrial" countries are such in different degree in different years as economic development proceeds.

With respect to British foreign trade, the calculations according to the methods described above were carried back to 1854, with the interesting result shown in table 20. The outstanding fact, as the author points out, is the decrease of the "traditional type of exchange"—the exchange of manufactures against foodstuffs and

TABLE 20. PERCENTAGE DISTRIBUTION OF BRITISH FOREIGN TRADE ACCORDING TO THE VARIOUS TYPES OF INTERCHANGE*

	1854 -63	1864 -73	1874 -83	1884 -93	1894 -1903	1904 -13	1925 -29
Commodities against services (so-called "invisible" items)	14.2	12.1	20.3	18.2	23.9	15.1	23.1
Foodstuffs and raw materials against foodstuffs and raw materials	11.1	10 9	12.1	14.3	16.3	20.0	15.8
Manufactures against manufactures	8.8	13.2	17.2	20.1	25.3	22.7	25.7
Manufactures against raw materials and foodstuffs	65.9	63.8	50.4	47.4	34.5	42.2	35.4
Total per cent.	100 0	100.0	100.0	100.0	100.0	100.0	100.0
Total, mill. pounds	2,820	4,553	5,486	5,675	6,723	9,620	8,880

* HIRSCHMAN, *op. cit.*, p. 590, based on figures of SCHLOTE, *op. cit.*

raw materials—from two thirds of Britain's total foreign commerce to a proportion varying between one third and two fifths. This result was brought about by increases in all the other types of interchange.

The growing importance of exchange of manufactures against manufactures probably reflects in part the rise in income levels in Great Britain which let the British buy a larger variety and volume of manufactured goods from abroad at the same time that they were making and buying more at home. It also reflects the increasing importance of other countries, such as Germany and the United States, in the finished goods field. The increase in the exchange of raw materials and foodstuffs against raw materials and foodstuffs results mainly from the increase of coal exports and exports of processed foodstuffs such as canned goods and beverages. This trend, too, may be viewed as an effect upon Great Britain of the economic development of other countries, which brought increased demands for coal and foodstuffs.

Thus, British trade, under the influence of developments abroad and at home, became larger and very much more complex. "The statement that British trade consisted mainly in exports of manufactures against imports of foodstuffs and raw materials was still a valid generalisation for the period 1854-63. For the decade 1894-1903 (and for subsequent decades) it had become a distortion of the facts."[1]

[1] *Ibid.*, p. 591.

Conclusions

The analysis of this chapter leads to a number of important conclusions.

An increase in external trade ordinarily accompanies the rise in production and income brought about by economic development. However, this tendency may be offset or completely blocked by politico-economic factors hostile to a lively international exchange, such as the existence of political insecurity which demands that military considerations be dominant or a world depression which disintegrates the whole system of trade.

The *income* results of economic development are very important from the point of view of the trade prospects of advanced industrial countries. The more rapidly incomes rise in the developing countries, the easier are the necesary trade adjustments likely to be for the advanced countries and the more favourable the effects on them. Projects which merely enable a country to dispense with imports without raising the real income of the country tend to contract trade rather than to expand it and to have unfavourable effects on the trade prospects of the advanced industrial countries.

It follows that economic development in accordance with the broad principle of comparative advantage (which does not, of course, preclude establishment of industries that may have to be subsidised during an educative period, if they are likely to prove well adapted to the country in the long run) is the most favourable course both for the developing countries and the advanced countries.

A flexible, multilateral system of international trading relationships is an important favourable factor for the advanced countries in a developing world, for it makes possible the most rapid general rise of income (through more efficient and complex types of specialisation) and it offers more alternative opportunities for adjustment as shifts in the world market situation make adjustments necessary.

As the economically less developed areas "grow up" to modern industry the composition of world trade may be expected to undergo important changes (*relative* shifts within an increasing total). The importance of the simple "traditional type of exchange" of manufactured goods against foodstuffs and raw materials will continue to decline. Specialisation will become more complex, with each country importing some types of manufactured goods and exporting others, importing some types of raw materials and exporting others, and with a considerable increase in the trade in partly finished goods ("semi-manufactures") representing specialisation by stage of processing. Services (not included among the commodity imports and exports of the ordinary trade returns) will play a more import-

ant role in international exchange as the world grows more wealthy and as communication improves.

For some time, at least, the relative importance of capital goods as compared with directly consumable goods is likely to rise. The advanced industrial countries will export increasing quantities of some kinds of consumable goods, especially those involving higher technical skills, newer research, and those adapted to mass production for relatively high income groups such as are found in their own domestic markets. The cheaper and simpler manufactured goods adapted for use in poorer communities will increasingly be supplied by the newly developing countries. They can be imported by the relatively advanced countries with benefit, especially to their less wealthy inhabitants.

Some kinds of goods—the "new" dynamic products—will have much more favourable prospects than others as economic development proceeds and world income rises. The more adaptive the industries of the advanced industrial countries can be in shifting from relatively unpromising to relatively promising lines of production the less serious will be the problems raised by new competition and the more the advanced countries will gain from world economic development.

The chapters that follow will attempt to explore somewhat more fully the problems of adaptive adjustment to world economic development. For, if these conclusions are reasonably sound, the key to policies on the part of the advanced industrial countries which will serve them best in a world of progressive change is industrial adaptability.

CHAPTER IX

NEW OPPORTUNITIES AND NEW COMPETITION

Increased consumption and increased production go hand in hand in newly developing areas. From the point of view of the effects on advanced industrial countries this is a point that must never be lost from sight. Yet it is frequently overlooked in popular analyses of these effects.

As a long-run proposition, the amount by which consumption increases in countries undergoing economic development will be no more than and no less than the amounts by which production increases in the same countries. The amount which the Chinese, for example, are able to produce will determine, except for relatively temporary and minor qualifications, the amount that they will be able to eat, to wear and otherwise to use (including the use of goods and services for real investment in roads, factories, airports, schoolhouses, etc., which for present purposes may be regarded as consumption that is spread over a longer time). A community cannot indefinitely consume more than it produces. Conversely it cannot indefinitely produce more than it consumes (and invests).

Temporarily, of course, a country such as China can borrow abroad. Thus for a time the total of its consumption and investment can exceed its current production. Later, when payments of interest and principal on old loans begin to exceed the amount of new loans, the total production of goods and services in the country must run ahead of the total use of goods and services in the country. In the long run, however, the two are equal, if international gifts or unpaid international debts are excepted. But such gifts or defaulted debts are very unlikely to amount to more than a tiny fraction of the total production and consumption over a period of years.

Hence, the analysis of trade effects resulting from economic development of new areas may start with the proposition that over a long period the increased production of these areas will be balanced in value by their increased consumption, but that for the first few decades, while they are borrowing abroad for developmental purposes, their consumption (and investment) will run ahead of their production. Later, while they are repaying, the reverse will be true.

While this is true of *total* production and consumption, it is decidedly not true of the production and consumption of *specific kinds* of goods and services. The increased production of certain commodities will run far ahead of the increased consumption of those same commodities in the newly developing countries. In the case of other commodities, the opposite will be true. In other words, while the increase in imports of newly developing countries will be equal to the increase in their exports (with the qualifications noted above as to timing) this over-all result will represent a net increase in the *imports* of some goods and services and a net increase in the *exports* of others. Thus, the effect of economic development in new areas, from the point of view of older industrial areas, will be to cause important shifts in the world trading situation. For some goods and services the effect will be to increase world demand relative to world supply. For other goods and services the effect will be the opposite. Still other goods and services will not be affected importantly one way or the other, either because they are not readily exchanged between countries or because the effect of economic development on their demand just balances the effect on their supply.

Probable Nature of the Shift in Trade

It will be convenient in subsequent analysis to classify the goods and services of the world into three groups as follows:

A-products: items in increased demand as a result of economic development of new areas. The market for these items would be expanding. Their prices, unless counteracted by changes in production methods and costs, would tend to rise. Employment of labour and capital connected with their production would tend to increase.

These would, for the most part, be net import items for the newly developing countries as a group. However, some export items of these countries might become A-products by reason of greatly increased home consumption.

B-products: items in increased world supply as a result of the economic development of new areas. From the point of view of established industries in the advanced countries the market for these items would be a contracting one. Their prices would tend to fall, and the amount of employment available for labour and capital in the advanced countries by reason of their production would tend to decrease.

These would, in general, be the characteristic export products of the newly developing countries. However, some items might become B-products through a decrease in imports into these coun-

tries as some kinds of foreign goods are replaced partially or wholly by home production.

C-products: items not directly affected one way or the other on the world market by the economic development of new areas. The increased consumption of these items in the newly developing countries would be exactly balanced by the increased production in the same group of countries. This would necessarily be true, for example, of non-transportable goods and services, such as buildings and the heavier building materials, retail merchandising services, automobile repair services, local newspapers, etc. It might also happen to be true of other items in which industrial development would increase consumption and production by the same amounts.

As economic development proceeds, what specific kinds of commodities or groups of commodities will fall into these categories A, B, and C? What quantities will be involved? These are questions that cannot be answered exactly. In part, the answers will depend upon what policies are adopted by the governments of areas undergoing economic development, especially in the subsidy of certain lines of production. The answers will also depend in part upon the policies of other governments, including the amount and kind of developmental assistance that may be made available, and the extent to which tariffs, quotas, exchange controls and the like are applied to international trade. Nevertheless, it is possible to make some useful general statements.

First of all, it is worth pointing out that economic development is likely to increase domestic production and consumption even more than it increases international trade, even though the increase in international trade is large. The output of C-products will absorb a very important part of the increased productivity of a country with such vast and varied resources and needs as China, for example. Houses, bridges, streetcars, highways, telephone services, merchandising, amusements, hairdressing, automobile services and repairing, will represent a great enlargement of domestic production and consumption and a great increase in living standards, but will not enter directly into international trade.

In the case of A-products and B-products and the shifts in trade, it will be useful to look separately at two time-periods. The first may be called the stage of development, and the second the stage of approaching industrial maturity.

In the stage of development the total imports of the newly developing countries will presumably increase faster than their total exports, since they will be receiving loans of capital from abroad. This means that the increase in demand for A-products will bulk larger in the world market situation than the increase in

supply of B-products, and the net effect will be an increase in the effective demand for the products of the advanced industrial countries. This is only another way of describing the stimulating effect on the economies of the advanced industrial countries which, as shown in Part I, may be expected to arise out of the investment phase of the process of economic development.

What will the A-products be? That is, on what internationally traded commodities will the newly developing countries spend their increased income? Conversely, what kinds of goods will they be able to produce in large quantities at low cost, and to offer for export during the early years of development (B-products)?

Let us look at the particular case of China. In so far as China's import and export trade follows the course of greatest immediate economic advantage (whether it is carried on by private traders or by government organisations) those goods will be imported which require in their production large proportions of the factors of production that are relatively scarcer in relation to demand, or less efficient in relation to their prices, in China than they are in other countries. Conversely, China will find its greatest immediate economic advantage in exporting those goods which embody large proportions of the factors of production that China has in greater relative abundance, after taking account of local demand, than have other countries. Factors of production that are very scarce in China include labour skilled in modern mechanical art, trained engineers, modern machinery and industrial equipment, the free capital funds necessary to install the more expensive types of equipment, and managers experienced in the more complex types of mass production. The same is true, in varying degrees, of other newly developing countries; it will be true of the newly developing countries as a group in comparison with the advanced industrial countries. On the other hand, China and most of the other newly developing countries will have a relative abundance of the less skilled grades of labour, much of which can be used, after brief training, in semi-skilled occupations. They will have a relative abundance of certain kinds of natural resources—the particular kinds of natural resources varying markedly, of course, from one area to another.

Now, in so far as China and the other newly developing countries follow the course of greatest economic advantage, they will buy abroad and import products embodying large proportions of the scarcer, and therefore more expensive, factors of production mentioned above. A-products will therefore typically include items requiring large amounts of complicated machinery or complicated technical processes in their manufacture, requiring large amounts

of research and managerial skill and development, or very complex organisation and precision manufacture in order to obtain low cost through mass production. Concretely, this would mean such items as automobiles and trucks, dynamos, aircraft motors, machine tools, many types of chemical and medical equipment, refrigerators, air-conditioning apparatus, etc. The money with which the newly developing countries would pay for these A-goods (or, if the goods were bought initially on loans, the money to repay the loans), would be earned by selling abroad products that embody large proportions of their own characteristic resources. These B-products would typically include commodities that can be turned out by fairly routine methods with a relatively small amount of technical labour, relatively small amounts of capital per worker, and relatively simple organisation, or in which hand labour and craftmanship continue to play an important part, or in which labour having a fairly low level of education may be quickly trained to operate the machines that are required.

From this analysis it is obvious why the textile industry, except for types and grades of textiles dependent on highly technical processes or slowly acquired skills, has blossomed quickly in newly developing countries as a "home market" industry and, in Japan, as an export industry. One may expect that countries like China and India will quickly be able to expand production in textiles, the processing of foods, the early stages in the fabrication of their special local materials, and the simpler types of manufacture in general. They will find it less costly to import than to produce locally, on the other hand, the types of consumers' goods which require the most capital equipment and the most complex processes in their production, and they will find a great many items of capital equipment in the advanced countries which, in the early stage of development, they could hardly produce satisfactorily for themselves.

There are two reasons, however, why the newly developing countries are not likely to follow exactly the formula of immediate "comparative advantage" in determining what kinds of goods to import and what kinds to export. One is the reason of military defence. After the experiences of this war, the Chinese Government, for example, will undoubtedly want to encourage the development within China of some types of industries whose products might be obtained more cheaply abroad but which are essential for support of a modern fighting force. What would be an unduly rapid development of heavy industry from the point of view of immediate economic cost and gain may be determined upon as a necessary defence programme. The Soviet Union plunged directly into a heavy industry programme and built modern metal-

lurgical, electrical and other installations capable of producing tanks and planes. This was done at great expense, measured in terms of the immediate sacrifice of consumer goods and retardation of the progress in living standards that could otherwise have been made. But who will say, in the light of experience, that the decision was not the right one? The extent to which China and other newly developing countries may feel it necessary to build high-cost, capital-consuming industries adapted to military production will depend in part upon the type of security system that emerges out of the war. In any case, the military preparedness viewpoint will certainly influence development programmes for some time to come.

The second reason why the newly developing countries are not likely to confine their development programmes to those lines in which they would find the greatest immediate economic gain relates to the process of industrial education. At present, technical skill, industrial organising ability and engineering talent are scarce in these countries. But this is a situation which can be changed. One of the ways to change it is to plunge rapidly into the production of modern industrial goods of many kinds, even though that production may be so expensive at first that it would be cheaper to purchase the goods abroad. At a certain cost in immediate economic welfare, in short, the process of industrial education may be speeded up. There may be a long-run gain from subsidising, over the initial period of learning by trial and error, many industries that on the basis of current cost comparisons would not be immediately advantageous.

This, of course, is an application of the familiar "infant industry" argument for State subsidies or protection. The validity of this argument, when it is honestly and correctly applied, has generally been admitted, even by ardent free traders. The problem is to select the industries to be subsidised so as to bring the maximum benefit in industrial education with the minimum of cost and sacrifice to the people of the newly developing countries and also to the people of the advanced industrial countries—for the latter have a stake in the matter. Certainly it would be a mistake for the newly developing countries to erect protective tariff barriers indiscriminately on the grounds of fostering "infant industries", just as it would be a mistake to try to prevent the fostering of industries that genuinely possess the characteristics of "infants"—that is, the capacity to grow up to self-sustaining maturity. There are also strong reasons for thinking that the traditional method of the protective tariff is much inferior to other methods of subsidy for fostering genuine infant industries. More will be said on this in a later chapter. In any case, a policy of educative subsidies, whether by

tariff protection or by other and better ways, will limit the working of immediate "comparative advantage" in determining the kind of industries that will develop, and consequently the kinds of commodities that will fall into the A-products and B-products classifications.

In the second stage reached by newly developing countries, designated above as the stage of approaching industrial maturity, they will engage increasingly in the more technical and highly capitalised lines of production. If industrialisation really "takes" in such countries as China or India or Latin America, the supply of industrial capital, of technical skill, of engineering ability and of talent for complex organisation may some day be relatively as abundant there as in the United States, Great Britain, Germany or other present-day "advanced" countries. As that begins to happen—and it will be a very gradual process—new influences will affect the import and export specialisation of all these areas. Trade between the advanced industrial countries and the newly developing countries, which will by this time also be fairly "advanced", will be much more complex. It will resemble the trade between two such industrial regions as western Europe and the United States, or between New York and Michigan. Economies of large-scale production, special local resources, local conditions and labour skill, historical factors such as the accident of a particular industry having started first in a particular place, or the influence of an individual industrial genius and his associates will determine the course of trade between countries after industrialisation has spread more or less evenly over many regions. This, of course, is on the assumption of reasonable political security and reasonable freedom of international trade. As has already been shown (Chapter VIII) it is false to think that inter-regional and international trade depend in any fundamental way upon the present historical situation in which some areas happen to have much more advanced industrial techniques than others. As industrial development proceeds, and as all countries attain a considerable degree of industrial maturity, incomes will rise, transport costs will probably continue to decline, and the total value of inter-area trade will undoubtedly grow—always assuming that political conditions permit. Inter-area trade will probably not rise as rapidly as income (in other words, C-products will become more important in relation to A- and B-products) but there is every reason to expect it to increase substantially in absolute amount. There will be a larger volume of trade, substantial shifts in the particular items imported by various countries, and a much more complex division of labour among various localities.

Repercussions in the Advanced Industrial Countries

In the advanced industrial countries, workers, business men and communities whose incomes depend on A-products will find themselves favourably affected as economic development proceeds elsewhere. For these products will be in increasing demand. There will be more employment in these lines. Wages and the return to capital in the establishments producing A-products may rise relatively to wages and the return to capital elsewhere in the same country. That will depend upon how readily new labour and capital can move in to meet the increased demand, and on other factors, such as the types of collective bargaining agreements in force.

What will be the effect on consumers of A-products? Because the world demand has increased more markedly than the world supply, the first effect will be a tendency of the prices of A-products to rise. If this were the end of the matter, the repercussions on consumers of A-products would be adverse. However, the A-products as a group are likely to be of a kind for which output is readily expansible as demand increases and for which the cost per unit may even fall as world output grows. A-products, as we have seen, will characteristically embody large proportions of fixed capital and technical skill and scientific methods of production. Increased demand for goods of this sort is very likely to encourage still further improvements in production technique, which will ultimately result in lower costs per unit of output. Thus, if an enormous world demand for electrical refrigerators develops in future years, there is every reason to expect that moulded plastic bodies and continuous assembly-line manufacture of the working parts will be applied on a mass output basis so as to make better refrigerators available at a price which can be afforded even by families with quite moderate incomes. In this way, because of the dynamic effects on enterprise and technology, the reaction of the increased demand for A-products upon the consumers of A-products may be favourable.[1]

It thus appears that industries, workers and communities in

[1] It might be argued that the increasing costs per unit of the primary raw materials and labour skills from which A-products are made will more than offset any decline in manufacturing costs as the demand for A-products rises. But such a "static" analysis based on the law of diminishing returns assumes as constant some of the things that are most affected by the process of change which is under consideration here. Even in the case of primary raw materials the fact that production is being carried on by and for new groups of people and with the prospect of greatly increased markets is likely to hasten the application of existing technical knowledge and also to hasten research and the discovery of new and cheaper techniques and alternative materials. The rise of the chemical industries is particularly important in this connection. The production of plastics is not subject in anything like the same degree to the natural limitations that affect the output of minerals. Even in the case of minerals, new methods of handling and treating ores continue to make available low-grade deposits which earlier were not considered workable.

the advanced industrial countries which are engaged directly or indirectly in the production of machinery, electrical goods, transportation equipment and other A-products will find their economic opportunities expanding as economic development takes place in new areas. On the other hand, the effect on consumers of these products is not likely to be particularly adverse, if it is adverse at all. Indeed, the response of production technique to the new market opportunities offered by world development will quite possibly benefit the consumers of A-products directly.

What then will be the effects on the producers and consumers of B-products in the advanced industrial countries? The B-products are those in which the newly developing countries will offer new competition on the world market. Supply will increase relative to demand. It is in these lines—preliminary processing of some kinds of raw materials, various kinds of light manufacturing, as in the field of textiles, and production of goods not requiring large amounts of capital or the more complex technical skills—that the newly developing countries will have a cost advantage. In the case of A-products, the superior technology and industrial organisation and the larger capital supplies of the advanced countries more than offset the lower wages of the less developed countries. Therefore costs per unit of output (and that is what matters in competition) are lower for A-products in the advanced countries. In the case of B-products, which we are now discussing, the superior technology and organisation and capital equipment of the advanced countries are not effective in the same degree and costs will tend to be lower in the newly developing countries.

The new production of B-products in the countries undergoing development may mean new competition in several markets—the markets of the newly developing countries themselves (local production replacing imports of some kinds of goods), markets of third countries (export competition), and even in the advanced countries' home markets.

The tendency of increased B-product imports to enter the home markets of the advanced countries is likely to encounter barriers in the form of protective tariffs or quotas. As the new countries develop their cost advantages in such products there will probably be demands for boosting these import barriers still higher. The prevention of a substantial increase in imports of B-products into the advanced countries, however, would imperil the success of the whole process of international economic development (by depriving the newly developing countries of a means of paying returns on investments), and would represent refusal on the part of the advanced countries themselves to accept an important benefit to their

own living standards. Cheaper imports of B-products, which will include many items of common necessity, would especially benefit the lower-income groups by making their wages buy more.

As a result of one or more of these forms of new competition the B-product producers in the advanced countries will find their markets shrinking. In an expanding economic world the shrinkage may be merely a *relative* one—that is, their markets may simply not grow as fast as markets for other kinds of things. In cases of that sort the adjustment is not difficult. However, the most difficult case will be discussed here, namely, one in which new competition from the developing countries actually results in a decrease in the marketing possibilities of some specific industries in advanced countries.

In such a situation the established producers of B-products will be affected adversely. They will get lower prices for their products. Business opportunities will be less bright and employment will shrink in B-product establishments, *unless they are able to adopt radical innovations and thus adjust themselves to the new situation.*

Some established enterprises in the B-product industries may adjust themselves by improving their own methods of production, instituting new and more efficient processes which lower costs per unit without lowering wages. They may improve the quality of their products and cater for a somewhat different demand from that which is satisfied by the new cheap goods. Other B-product establishments may shift to new lines of production in which the market situation is more favourable—either into A-products which are in increasing world demand, or into those C-products for which the domestic outlook is good. Some will, of course, seek subsidies from the government. The most frequent form of subsidy is the protective import duty which permits the industry to charge domestic consumers more than those consumers would otherwise have to pay for the same article from lower-cost sources abroad. Subsidies might even be sought to assist in maintaining exports. In general, however, experience shows that the attempt to keep an industry going in its old ways by means of subsidies from the community is likely to be a losing battle, accompanied by heart-breaking experiences for workers, managers, investors and the localities in which they live. B-product industries which hang on without making constructive adjustments will offer less regular employment, lower wages and lower profits than in the past. At the least, they will not be able to get the advantage of improvements in these respects to the same extent as producers of A-products and C-products.

What of the people in the advanced industrial countries who consume B-products but do not derive their employment or income

from B-products? Their real incomes will be increased as a result of the new economic developments which enlarge the supply and lower the prices of these commodities. The benefit to them is likely to be quite substantial in the aggregate. The benefit is received through a fall in the cost of living brought about by the fall in prices of B-products[1], and B-products are likely to include many of the items of every-day consumption. It is well known, for example, that an important influence in raising the real income of British workers in the latter half of the nineteenth century was the cheapening of British food supplies as a result of the fall in the price of grain (a B-product in those days) which accompanied overseas development. However, if the governments in the advanced industrial countries adopt a policy of "protecting" domestic producers of B-products instead of assisting them to shift into more promising lines of production or to improve their techniques, the consumer will not be able to harvest this benefit.

Finally, consider the effect of increased production and consumption in the newly developing countries on the C-products of the advanced industrial countries. These are products not *directly* affected one way or the other by the economic development of new areas. There will, however, be important indirect effects.

In the advanced industrial countries, C-product industries make up a high percentage of the total economy. Persons engaged in such activities as the construction, supply and maintenance of houses and office buildings, automobile repair, teaching, legal practice, the practice of medicine, local merchandising, and in the service industries and professions generally, will be affected both as consumers and as producers. As consumers, they will benefit from the lower prices of B-products. As producers, they will be affected favourably to the extent that investment in world development gives a useful stimulus to the economies of the advanced countries, for their business opportunities will rise or fall with the rise or fall of general prosperity. The cheapening of B-products is very likely to benefit them by making a greater amount of domestic consumer income available for expenditure on local goods and services. Again, they will benefit by the increased expenditures of persons connected with the expanding A-industries. On the other hand, they will be affected unfavourably by the depressed condition of some B-product industries, where capital and labour try to remain in these relatively unpromising lines instead of moving into more promising ones. If, however, workers and capital in the B-product industries adapt themselves fairly quickly to the new conditions of

[1] Of course, this may be a *relative* fall. That is, B-product prices may not fall absolutely, but may rise less rapidly than other prices and incomes.

supply and demand, shifting the emphasis in the country towards the production of A-products and away from the production of B-products, then the over-all productive efficiency of the country will rise. There will be a general rise in the standard of living and the producers of C-products for the domestic market, along with everybody else, will be more prosperous.

An Example

The particular case of a town that will undoubtedly be affected in very important ways by the course of world development after this war may serve to clarify these general principles. Consider the future prospects of Lynn, Massachusetts, in the United States of America. Lynn has long been known as a textile and shoe town. More recently the General Electric Company has established a large plant there.

It is quite likely that many kinds of electrical goods will be in great demand in the newly developing countries and that for a considerable time the more advanced countries will continue to have a cost advantage in the production of at least many types of electrical equipment. This is especially likely in view of the great importance of research and new product development and improvement of old products in this field. Electrical goods, in other words, will be A-products. Textiles and shoes, on the other hand, will probably belong to the B-product classification. The balance of cost advantage in these lines will no doubt shift in the direction of the newly developing countries as they adopt modern industrial methods. Supposing that this is a correct forecast of the situation, Lynn will have both A-product and B-product industries. Of course, it will also have C-product industries, represented by its retail trade establishments, its automobile service stations, its banks, its physicians, teachers, hairdressers and other producers for the local market.

Thus, industrial progress in China, India, Latin America and elsewhere will affect Lynn in two ways. It will mean increased opportunities and it will also mean increased competition. Because of economic development elsewhere, the plants producing electrical goods will be able to offer steadier employment at higher wages and will probably expand, taking on more workers. The textile and shoe industries, after a few years, will probably begin to feel the pressure of increasing competition from the newly developing countries, both in the export market and (unless they get a very high subsidy from domestic consumers by means of protective import duties or quotas) even in the domestic market. The people in Lynn who make

C-products will be more prosperous, on the one hand, because of the prosperity of the local electrical industry, and on the other hand, less prosperous because of the depression in the local textile and shoe industries. The balance of gain or loss to them will depend in the first instance on the size of these two opposite effects.

However, business men and workers would presumably make some attempt to adapt themselves to the new situation. The rational adjustment would be for capital and workers to shift from the textile and shoe industries into the electrical and other expanding industries. The retraining of workers which would be necessary might even up-grade the skill and raise the earning power of some of them; this would be analogous to the result sometimes observed in personal affairs where misfortune turns out to have been a blessing in disguise by stimulating an individual to make a courageous readjustment that was long overdue.

Additional plants for producing electrical goods, and also plants for producing other sorts of A-products—perhaps new types of products just out of the laboratory—could also be established in Lynn to take advantage of the improved opportunities in these lines created by economic development of new areas and to absorb the workers and capital which would otherwise be less well employed in the declining textile and shoe trades. If these adjustments are brought about the people of Lynn will be better off. Adjustments of this kind represent a shift of productive efforts out of less efficient or less well adapted industries into more efficient or better adapted kinds of work. Methods of facilitating and encouraging such shifts will be discussed in a later chapter. If such adaptations are not possible, on the other hand, many of the people of Lynn would, for a considerable time, be worse off, as a result of economic development elsewhere.

Now suppose that Lynn had only an electrical industry, and no textile or shoe industry. In that case, the economic development of the new areas would bring to Lynn a great upsurge of prosperity. The real income of the people of Lynn, including the people in local trades, would increase both by reason of the rising demands for their products and by reason of the fall in the prices of the B-products which they consume.

Again, suppose that Lynn had only textile and shoe industries and no electrical industry. In that case, its people would be very badly hit by the economic development of new areas. The best remedy would be to encourage new industries of the A-products type or to shift to C-products which (if it were a period of general prosperity) would be in increasing demand elsewhere in the country. Failing this, the community would be chronically depressed and

would have to exist on subsidies from the rest of the country, or people would have to move to other more fortunate or more adaptable communities where they could find jobs in expanding A-product and C-product industries.

Adaptability: the Main Factor Determining the Balance of Advantage and Disadvantage

The case of Lynn points clearly to the conclusion that the balance of advantage or disadvantage to established industrial areas from shifts in the world trading situation will depend above all upon *adaptability*. The same conclusion holds for countries.

To generalise further, the following formula may be laid down. The net balance of advantage and disadvantage to a particular country from the new opportunities and the new competition created in the world market by development of other countries will depend upon:

1. The country's specific stake in A-products
   (*a*) as producer, and
   (*b*) as consumer.
2. The country's specific stake in B-products
   (*a*) as producer, and
   (*b*) as consumer.
3. Its adaptability
   (*a*) in shifting its production out of B-products into A-products and C-products, and
   (*b*) in shifting its consumption towards imported B-products, which can now be had more cheaply.

The first two of the factors mentioned above depend upon past circumstances—the original endowment of the country in natural resources, the kinds of industries that have grown up, the skill and aptitudes and habits and tastes acquired by the people. They are "history". History may have placed one country in a very favourable situation, from which it can gain directly and easily by world economic development. In the case of another country, its past history and resources may have left it in a vulnerable position where it has important industries which suffer from the competition of new areas but has few industries in a position to take advantage of the new market opportunities created by the rise of income abroad.

The only controllable factor is the third, that is, adaptability.

Nothing can be done to change history. But, starting with the situation of the present, whether relatively good or relatively bad, a vast difference in a country's future prospects can be made by the willingness or unwillingness of its people to be energetically adaptable. The third factor, therefore, is the one on which practical leaders of business and labour and practical economic statesmen will need to focus their attention. *Adaptability* is the key to the situation of the advanced industrial countries as economic development proceeds in other areas. Proper adaptation will enable them to take maximum advantage of new opportunities offered by rising world standards of consumption. Proper adaptation will make it possible for them to reap great benefit from access to new and cheaper sources of supply of those goods which newly developing countries can best produce. And proper adaptation will keep to a minimum the troubles and losses occasioned by new competition from low-cost industries in other parts of the world.

Denmark's history in the late nineteenth century offers a concrete instance. A problem of direct, specific competition brought about by new economic development abroad was successfully solved by an adaptive adjustment which benefited all parties and enabled the adaptive country to raise its living standards very markedly.

The economic development of the United States, particularly the building of new railway lines and the rise of large-scale mechanised farming, together with the effect of steamships in cheapening ocean transport, raised serious new competition for the cereal-growing regions of Europe in the latter part of the nineteenth century. Denmark, for example, was accustomed to rely on grain as its principal export product (mainly to England). Now the cheap new grain supplies from overseas appeared to threaten Denmark's economy with ruin. The cheap grain, however, together with general advances in industry and trade which increased the productivity of the average worker, contributed to a rise in real income and living standards in Great Britain. The British were able to spend more on a greater variety of foods, including butter, cheese, ham and bacon. These more expensive animal products can be purchased in large quantities only by people on a relatively high standard of living. At the same time, improvements were made in the techniques of producing these products (the cream separator, etc.). Thus new and profitable opportunities for Danish agriculture appeared in the field of animal products, at the same time as, and partly as a result of, the new competition in grains. Gradually, over the latter part of the nineteenth century, and very consciously in the 1880's and 1890's, the Danes shifted the emphasis of their

agricultural production towards animal products. Denmark actually became a cereal importer instead of a cereal exporter, although —and this is an interesting feature of the adaptation—as much grain continued to be produced within Denmark as before. Indeed, home production of grain increased slightly. What the Danes did was to feed the cheap grain to animals, "processing" it into higher quality foods which were then sold in the English market. By this method, and with the help of producers' co-operative societies and educational movements that contributed to intelligent farming and marketing, the Danish farmer acquired one of the highest living standards in the world. An overseas development which had offered menacing new competition was thus converted by successful economic adaptation into a tremendous new opportunity.[1]

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[1] Summarised from the manuscript (now available in hectographed form) by Carl Major WRIGHT: "The Adaptation of Danish Agriculture from Grain Production to Dairy Products and Meats".

CHAPTER X

THE IMPORTANCE OF INDUSTRIAL ADAPTATION IN THE ADVANCED COUNTRIES

The key to the problems which will face advanced countries as economic development proceeds in other areas is *industrial adaptation*—that is, shifting of the uses of labour and capital. Progress elsewhere in the world will mean economic gain for established industrial regions if there is sufficient mobility of labour and capital into those industries where the new conditions create better prospects, and out of the industries where opportunities are less good.

The position of established industrial countries in a progressive economic world may be likened to that of a private firm in a growing country. New customers and new rivals are appearing all the time. The market is constantly changing. Costs and prices are shifting. If the firm's managers are alert and imaginative they will study the trends in consumer demand and the trends in their own production costs. They will use that information in deciding from time to time to expand one department and contract another, to push certain old products that are profitable and to withdraw others that have ceased to be profitable, and to add appropriate new products at the right time.

Employers, workers and governments in the advanced industrial countries will have a choice of three basic policies when the increases in production and consumption in newly developing areas begin to affect the economic outlook. The first might be called a policy of restriction, the second a policy of *laissez faire* and the third a policy of adaptation.

The restrictive policy, if it is adopted, is most likely to be entered upon piecemeal in response to pressure from particular groups of workers or employers. Producers attached to industries which feel the new competition of developing areas will regard that competition as a threat to their livelihood. The public will be susceptible to the fallacious argument that low-priced imports, especially if they come from countries with low standards of living, must undermine the living standards of a country that receives them. Such fears can easily lead to non-co-operation or hostility towards

economic development abroad, and to high protective tariffs or restrictive import quotas on goods coming from newly developing regions. The effect of such policies, designed to "protect" certain industries where new competition makes the future outlook relatively unpromising, is, of course, to throttle opportunities for expansion in other and more promising industries. For trade is a two-way street and refusal to import cuts down opportunities for export. In this case exports as well as imports from the newly developing areas would be sacrificed. The workers of Lynn would be "protected" in their attachment to a weak and struggling textile or shoe industry, but they would be hampered in their search for better employment in the electric equipment field. They would have to live precariously on a subsidy from the consumers of the country, instead of being assisted to transfer into an expanding industry able to meet competition both at home and abroad by keeping in the forefront of technical progress. Workers and owners of capital would be spared, temporarily, some part of the necessity of making difficult changes. But probably their own direct interests would be badly served by this policy over a period of years, and certainly the community and the country as a whole would be poorer.

The *laissez faire* policy may be a theoretical alternative to a policy of restriction, but it is hardly a practical one. "As a surgeon *laissez faire* cuts unnecessarily deep, while its treatment in general is so rough that the whole constitution of the patient will be undermined, and in any case it is so brutal that the patient will run away."[1] In the difficult and disorderly economic conditions that are sure to characterise the post-war situation, industrial groups in every country will demand help from governments in meeting their problems. Especially where the difficulty arises out of new competition from new industries abroad, the advice to let the automatic market system take its course and ruthlessly eliminate the "unfit" will hardly be accepted. Furthermore, it is not certain that the free play of competition would actually bring about a successful readjustment. The free market is sometimes very ineffective in ironing out pockets of unemployment, such as might tend to develop as a result of new competition from abroad, and workers and business men are often not mobile enough, in the absence of special public measures of encouragement and assistance, to transfer quickly to new lines in search of better opportunities. The history of "distressed areas" shows that market forces may operate in vicious circles at times, so that the very pressure of economic adversity which is supposed to compel readjustment makes it next

[1] J. W. F. Rowe: *International Control in the Non-Ferrous Metals* (W. Y. Elliot, ed., New York, Macmillan, 1937), p. 74.

to impossible to launch new types of production or to attract new industries to a depressed locality.

The traditional theory of international trade has usually ignored the transition problem of adjustment to new conditions of trade. By the device of looking only at long-run results it assumed away the whole problem of changes in production structure. In the "long run" of theory the factors of production are treated as highly mobile, but in meeting a practical need for immediate adjustment they may be very immobile. The enlargement of international trade by development of hitherto less developed areas will lead to beneficial results *if we successfully come to grips with the transition problems that arise in the process of changing the structure of production.* Protectionists, on the other hand, usually argue as though all changes which cause a shrinkage in any established industry are bad. They propose to "protect" workers and capital by insulating them from the necessity for change. Most national legislation, under the protectionist influence, hampers industrial adjustment and perpetuates weaknesses and vulnerabilities instead of helping in a positive way to remedy them.

The most feasible and also the most constructive alternative to restrictive intervention by the State is not non-intervention (*laissez-faire*), but intervention of a more constructive kind—namely, a positive programme of industrial adaptation. Such a programme would be designed to assist industry and labour in reorienting themselves, so that they can take maximum advantage of new opportunities. In this way the enterprise and initiative of citizens will be preserved and will be exerted in the most promising directions. The results of such a programme, assuming that it is successful, might well be in many (but not all) respects similar to that which the automatic market system would accomplish if it were able to function with the theoretical perfection assumed in older text books. But the process of adjustment ought to go forward with more attention to the human problems of the individuals directly involved and with less infliction of suffering on particular groups.

An adaptive policy, recognising transition costs and difficulties but also recognising that there is greater gain to be had by making adjustments than by not making them, would include two types of measures: (1) measures designed to stimulate industrial mobility, so that transfers of capital and labour would take place more rapidly out of the industries that ought to contract and into the industries that ought to expand; and (2) measures designed to soften the impact of changing economic conditions on the groups of people most directly affected, thus distributing more equitably the burden

of transition costs which would otherwise fall unjustly on certain particular groups and individuals. The effects of future economic development on advanced industrial countries will depend very much upon the degree to which these countries are willing and able to adopt positive policies of encouraging industrial adaptation.

Problems of Changing the Production Structure

"The production structure" might be defined as a set of going arrangements under which workers, capital and natural resources are employed in certain ways and at certain places. A change in the production structure means that workers must shift their occupations or the location of their employment, or that capital must take new forms and be applied in new ways or new places, or that new patterns of land use must be adopted.

"Adaptation" or "adaptive changes in the structure of production" may be defined as changes that, once accomplished, result in *better* use of resources—better in the sense that more real income is produced (or steadier real income, or better distributed real income). All changes in the structure of production, however, including adaptive changes, take place at a certain cost to society and to individuals or groups in society. Such changes often encounter serious resistance. In fact, some of the most dangerous economic problems of our day arise out of blockages of one kind or another which serve to rigidify the production structure and to prevent adaptive readjustment. The economic troubles caused by rigid production structures in turn contribute to other social and political difficulties.

This is one of the key problems of the modern world. Methods of facilitating adaptive changes in production structure, if they could be successfully devised and applied, would help not only to maximise advantages and minimise disadvantages from economic development of new areas, but would also contribute in no small measure to the solution of a host of other international and national problems. For example, positive adaptation policy—that is, deliberate encouragement of the mobility of the factors of production in a manner calculated to bring about desirable changes in production structure—is a key to the successful handling of the following postwar problems of economic adjustment, among others:

1. *The immediate problem of economic demobilisation and the reconversion of war industries to civilian uses.* The necessity for facilitating the shift of workers and investment from one occupation to another and from one place to another as a part of this process is so well appreciated these days that no comment is required.

2. *The problem of actually harvesting the benefits of expansionist policy designed to provide full employment.* Economists discussing the problem of full employment in recent years have put most emphasis on maintaining aggregate "effective demand" for the products of industry. For this purpose it is essential to maintain the flow of money income at a high level by stimulating investment and consumption. But a high effective demand is not enough to maintain full employment. It is also necessary to achieve a harmonious structure of production. Where immobilities of labour and capital (resulting, for example, from monopolistic practices) prevent the expansion of certain kinds of production, the remedy is not further expansion of over-all money income and demand. That might merely result in inflating prices. In order to have full employment there must be a harmonious relationship between the structure of production and the demands of purchasers. If it is possible to find means for redirecting labour, plants and natural resources into new uses more quickly and smoothly when the need arises, the task of promoting full employment by expansionist policies is made easier and the danger that expansionist policies will merely result in price inflations in certain sectors of the economy without achieving full employment is reduced.

3. *The problem of adjusting to technological development.* Technological change will doubtless be rapid in the post-war world. New applications of science and of machine technology give rise to changes in the production structure and create transition problems—that is, problems of shifting resources out of old uses into new uses. The cotton economy of the southern United States had to undergo profound readjustments because of the coming of tractors and other mechanical equipment. The advent of electrical refrigeration threatened the livelihood of icemen, but increased the opportunities for electricians and machinists. If adaptation can be made smoothly and successfully, improved technology is an obvious economic gain to society. The evils of the machine—technological unemployment and kindred problems—represent unsolved problems in industrial adaptation.

4. *The problem of bringing about effective international access to raw materials and markets.* This problem, so far as its peacetime aspects are concerned, is largely one of lowering restrictive barriers to trade. The real ground for complaint about "access to raw materials" is not refusal of the possessors to sell (in time of peace). Rather, it is that many important countries maintain high protective import barriers around their domestic markets, thereby making it less possible for other countries to obtain international

purchasing power through the sale of their own export products. Lacking this purchasing power, the latter countries are hampered in obtaining the foreign raw materials that they need.

Thus, the real means of increasing the access of all peoples to the raw material resources of the world, thereby increasing the chances of maintaining future peace, is through a lowering of trade barriers, coupled with general economic expansion. Yet trade barriers cannot be lowered without causing some shifts in the employment of labour and capital in the countries that agree to lower barriers. One of the effects of protective import duties and of protective quotas and exchange controls is to distort the production structure of the countries applying them. That is, types of production are encouraged which are not able to stand alone in unsubsidised competition with the rest of the world, while other types of production that could compete in the world export market are handicapped by the restrictive influence which import barriers also exercise on exports. If the protective barriers are then removed, a second shift in production structure must take place before the benefits of freer trade can really be had. The hitherto protected industries must shrink to some extent, and new opportunities for expansion appear in the export industries. An adaptation policy which facilitates the shifting of resources out of the former and into the latter groups of industries will assist, therefore, in removing the obstacles to international trade expansion, and in meeting the complaints about inequality of access to the world's resources.

5. *The problem of working out a harmonious relationship between governmental economic intervention and private enterprise.* The great practical problem in the relation between government and private enterprise is one of making a "mixed system" work satisfactorily. By "mixed system" is meant a system in which both conscious control of economic affairs through government and "automatic" responses of private enterprise to market forces play a role. Much discussion of the proper limits of governmental intervention in economic affairs has run in terms of the *amount* of intervention. An equally important issue is the *kind* of intervention. Adaptive intervention, on the whole, works with the price system rather than against it. Therefore, its tendency is self-liquidating rather than cumulative. Anti-adaptive intervention, meaning all policies which protect vested interests in old ways of doing things, helps to establish situations that cannot be maintained except by further government aid. Measures of this sort tend to perpetuate themselves and to produce new necessities for government control. For ex-

ample, a policy of protecting the New England textile industry against foreign competition by means of tariffs or against competition from the South by means of differential freight rates would be anti-adaptive. Stimulation of new industries in the area and subsidisation of vocational retraining for textile workers would be adaptive. The first policy works against the forces of the free price system to which private enterprise responds; the latter works with these forces. In general, adaptive types of economic intervention by government help to make it possible for private enterprise and governmental economic activity to work together harmoniously. Anti-adaptive policies, however, have the effect of demanding more and more intervention. Hence, positive adaptation policy is the key to making a "mixed" system work satisfactorily.

6. *The problem of commodity stabilisation without uneconomic restriction.* Most commodity control schemes adopted thus far have performed only restrictive operations. They have limited output or exports in order to raise prices (or to prevent them from falling) and to prevent the accumulation of surpluses. An important part of the pressure which has led to such restrictions in the past will be removed if the world can maintain a reasonably high level of general employment, and hence a high level of demand for raw materials, after the war. However, changes in the technology of production, discovery of new resources, the development of substitutes and other factors are bound to create situations in which from time to time there is over-capacity in some raw material industries and under-capacity in others. Positive adaptation measures designed to facilitate a movement out of those industries which are overdeveloped and into other lines of production (for example, industrial diversification in areas hitherto dependent on a single crop or a single product) will be a necessary part of any successful commodity stabilisation programme.

This list of post-war economic problems which depend upon industrial adaptation for their successful solution is not exhaustive. Yet it is enough to indicate that the development of new industries in less developed areas, or the further expansion of industries in other areas, is not the only type of economic change which imposes on workers and capital a necessity for shifting from one employment to another. It is clear that an adaptive programme which would meet the conditions created by new economic development would also have beneficial effects in many other connections.

Costs of Transition and their Distribution

It was noted above that all changes in the structure of production, including adaptive changes that result in better utilisation

of resources and hence lead to higher incomes, take place at some cost. These "transition costs", as they will be called, may be looked at from the point of view of particular individuals and groups or from the point of view of society as a whole. From the first point of view, transition costs include earnings foregone between the loss of one job and the finding of another, the expenses of moving a family to a new location, the decline in the earning power of a particular skill, the decrease of earnings and dividends from an established business, and the like. From the point of view of society as a whole, transition costs include production loss in shifting workers or equipment from one job to another, the cost of transporting workers or equipment to a new location, the cost of retraining workers and refitting capital equipment for new uses, etc. If the decline of some industries and the expansion of others cannot take place without dislocations which spread outward from the sectors of industry immediately affected and cause a general depression, then that, too, adds to the social and individual costs of transition.

The necessity of shifting out of some lines of production into others also carries with it certain "non-economic" transition costs which cannot well be expressed in pecuniary terms. Established habits of working and living may be disrupted, family or neighbourhood groups may be broken up. Some trade unions may lose membership. The prestige and position of some business leaders may fall. Even where the individuals concerned succeed in making adjustments which turn out to be to their distinct advantage, the initial necessity of making a change and facing an uncertain future is likely to be felt as a psychic cost.

The existence of these various costs, together with ordinary human inertia and ignorance of opportunities elsewhere, plus the obstructions placed in the path of adaptive adjustments by monopolistic groups or restrictive legislation, act as barriers to adaptive changes in the production structure. Experience has shown that coal miners, wheat farmers, and textile workers will remain attached to a depressed industry with surprising tenacity, even in times of general prosperity when there are opportunities elsewhere. Attachments of this sort, reinforced by uncertainty and by the fear of economic losses, also go far to explain the often passionate insistence of industrial groups upon getting or maintaining "protection". They quite naturally wish to insulate themselves from competition and especially from new competition which might force them to undergo change and readjustment.

Where an adaptation in the production structure is successfully achieved, the costs of transition are of course offset by gains. The gains in such a case are likely to be considerably greater than the

costs, at least from the social point of view, and not infrequently from the individual viewpoints of the workers and others directly involved. Transition costs are characteristically temporary, while the gains from an adaptive change in production structure make themselves felt in increased earnings year after year. One can, in fact, lay down the following general principle: it is worth while to undertake a given adaptation in the production structure if, regarding the transition costs as an investment, the increase in annual real income likely to result from the proposed adjustment is large enough to represent a satisfactory rate of return on the investment. A "satisfactory" rate of return in this connection is, of course, impossible to define precisely. But it is clear, for example, that a change in production structure which might represent an initial "investment" of one million dollars in the form of various costs and losses would be eminently worth while if it had the effect of increasing annual income by 500,000 dollars a year for a considerable time in the future. The return would in this case be 50 per cent. annually. On the other hand, transition costs valued at one million dollars would hardly be justified for the sake of increasing annual income by 40,000 dollars (4 per cent.) in view of the uncertainty of the future and in view of the likelihood that nonpecuniary costs of transition would also be involved.

It must be pointed out, however, that the *gains* from successful transition adjustment are often more widely shared than the *costs*. The costs may be concentrated upon relatively few people. For example, it has been estimated that American consumers, in 1937, were paying about $290,000,000 more per year for their sugar than they would have had to pay if sugar could have been imported, free of duty and restrictions, from the cheaper sources abroad.[1] In all likelihood this considerable sum could have been saved to consumers annually by free import of sugar and the consumers would have been able to increase their purchase of other kinds of goods. For the individuals dependent on the protected sugar industry, however, and for some communities in sugar-growing States such as Colorado, the immediate losses involved in a drastic shrinkage of the domestic beet sugar industry would have overshadowed the immediate gains, even though the country as a whole would have been richer. The persons directly affected might sooner or later transfer into alternative lines of production in which they would earn as much or even more than they earned in the sugar industry. But if the adjustment required several years they would suffer considerable losses in the meantime. This is obviously a case in

[1] J. P. CAVIN: "The Sugar Quota System of the United States, 1933–37", manuscript doctoral dissertation in Library of Harvard University, 1938, p. 313.

which an adaptive change in production structure would bring permanent net gain of considerable magnitude to society as a whole, but would do so at the cost of sharp, even though temporary, losses to particular individuals and groups.

It is cases of this sort which suggest that it might be equitable and useful to compensate private interests for transition costs made necessary by industrial adjustments undertaken in the general social interest. If the people of the United States, for example, could after the war somehow arrange to "buy out" the beet sugar interests at a price not exceeding, say, two or three times the annual amount which consumers would save by free imports of sugar, the bargain would be a good one. The "buying out" might consist partly of compensation in money, and partly in free vocational retraining, subsidisation of developmental projects, and research directed to discovery of new products which would lead to industrial expansion in the regions affected.

The bearing of all this on the way in which economic development of new areas will affect established industrial areas is clear. The advanced countries will be able to get maximum advantage from world economic development if they are able to adapt their production structures as development proceeds, shifting the use of their particular resources and skills into those lines where new opportunities are opening up and out of those lines where new low-cost competition makes it more advantageous to become a buyer. In a changing world situation, the countries that benefit most will be those that can make continual adaptations of this sort. The "best" production structure for a particular country—that is, the one likely to give the most in terms of real income, stability of real income and employment, and equitable distribution of income—is not a static thing. It changes gradually—in the form of better prospects for some industries and worse for others—from decade to decade and even from year to year. It depends not only on the country's resources and skills and preferences, but also on the state of technology and on what other countries are producing and consuming. Flexibility and adaptability in the production structures of the advanced industrial countries are extremely important in order that they may (1) adapt and readapt their industrial output so as to make the most of new opportunities, and (2) achieve these adaptations with a minimum of transition costs.

B. What Policies Will Yield Greatest Mutual Benefit?

CHAPTER XI

MEASURES TO ENCOURAGE INDUSTRIAL ADAPTATION WITHIN EACH COUNTRY

It is clear from all that has gone before that internal adjustments in the production structure of each country are a necessary counterpart of world economic progress. Each country will need a positive policy of industrial adaptation, not merely to meet the new situations created by economic development elsewhere, but also to deal with the serious structural problems that will be left by the war and to meet constructively the many other economic changes that require expansion of some industries and contraction of others. Under the conditions of modern economic life the problem of changing the production structure cannot be met successfully simply by leaving it to time and to the working of so-called automatic market forces. Methods of deliberately encouraging mobility and promoting the process of adaptation will be essential. What methods are appropriate?

The basic principles of a positive adaptation policy such as each advanced industrial country might apply to advantage within its own borders are:

1. To encourage expansion of the stronger and more promising industries and contraction of the weaker and less promising ones (unless the latter, by drastic enough changes in techniques, can so increase their efficiency and improve their prospects as to cease to be "weaker" industries).

2. To assist the transfer of workers and capital from less promising to more promising lines. In other words, the object would be to encourage mobility of the factors of production in adaptive directions.[1] This would be in some respects a revolutionary reorientation in the policy of most governments, for a large part of governmental intervention in the past has been motivated by the pressure of groups that wanted to be shielded

[1] Cf. Report III to the 26th Session of the International Labour Conference: *The Organisation of Employment in the Transition from War to Peace* (Montreal, 1944).

from competition—that is from the necessity of making adjustments. The new policy would be to help them make the adjustments.

3. To protect persons and communities against serious loss of income and employment arising out of a reorientation of production which is in the social interest, but not to protect them against the necessity of making adjustments. This means, in addition to a basic social security system, special methods of distributing transition costs more equitably. The object of an adaptive policy would not be to protect industries or occupations as such, but to protect people. The best way to protect the people connected with a weak industry or with an unpromising occupation might be to help them to shift into a type of production that offers better prospects.

The practical application of a policy like that outlined above would consist of many different kinds of action by governments and by business and labour groups. Devices used in wartime to assist transfers in accordance with the unprecedented need for industrial mobility that war creates, while not applicable without modification in peacetime, would undoubtedly repay careful study. Some tentative suggestions for peacetime adaptation policy are offered below.

Measures to Create an Economic Environment Favourable to Adaptation

Labour and capital shift to new occupations more easily in times of general prosperity than in times of general depression. In fact, little can be done about cleaning up pockets of unemployment caused by structural maladjustment if there is not a high level of activity and employment in the better adapted industries towards which labour and capital should move. The first requisite of successful adaptation policy, therefore, is "full employment" policy, meaning stimulation of private and public investment, stimulation of consumption, fiscal and public works measures designed to counteract a cyclical down-swing, and the like. As was seen in Part I, a world development programme can itself help to provide part of the volume of real investment needed to keep the economies of the advanced countries operating at a high level.

General economic expansion, both domestic and world-wide, such as is connected with increasing production, rising incomes, growing populations, new markets, and advancing living standards, makes structural readjustments easier. It softens the impact of forces necessitating readjustment by maintaining a demand higher

than would otherwise be the case for the products of industries that must decline, and it makes new alternative lines of employment readily available. Thus, absolute contraction of particular industries is less frequently necessary, and the reorientation of production can more often take place by diversion of the stream of new labour and capital to new uses, rather than by actual shifts of labour and capital already employed.

It must be insisted once more, however, that measures to promote full employment and economic expansion, while *essential* in meeting the problems of transition to a new production structure, are not *sufficient*. In fact, "full employment policy" is a misnomer if it is taken to mean merely pumping up the circulation of money income. By monetary expansion it is possible to boost aggregate effective demand to a level that might soak up all unemployment if there were no important obstacles to the mobility of the factors of production. But under the conditions of today there are such obstacles and though they are less when aggregate demand is high they do not disappear. The distinction is sometimes made between "general" unemployment and "special" unemployment. It is the second, "special" unemployment, resulting from imperfect adjustment of the production structure, with which adaptation policy is primarily concerned. The point being made here is that effective measures to combat general unemployment would also go a long way, but not all the way, towards easing the problems of special unemployment. Economic expansion and deliberate encouragement of adaptation need to go hand in hand.

The interest of business men in higher profits, if it is not allowed to take the form of monopolistic restrictions of output, is the most important adaptive force of all in a private enterprise system. Adaptation is facilitated by every improvement in the information at the disposal of business managers who decide what lines of production it would pay to expand and what lines ought to be liquidated. In addition to the ordinary business outlook services, governments co-operating with an international development authority might publish estimates of the volume of new expenditures to be expected on particular kinds of goods and services and within given regions under various assumptions as to the trends of national and world income. When interpreted into terms usable by business men such studies of income elasticity of demand should help industrial managers to make more accurate plans. On the supply side, corresponding estimates might be published on anticipated new production, especially in the newly developing areas of the world. The two types of information taken together would help to indicate to the managers of economic enter-

prises, and also to investors of capital, to labour organisations, to vocational counsellors, to trade schools, placement services, etc. what lines of production are most promising and what are relatively unpromising.

Better organisation of the capital market, better organisation of the labour market, and other measures to improve the functioning of the market mechanism in general serve to make adaptation easier by increasing the likelihood that personal initiative will be applied in directions where the economic outlook is best. Of great importance are effective employment exchanges, so set up as to be able to offer intelligent guidance to workers who might be able to improve their opportunities by shifting occupation or locality. They might well be supplemented by increased efforts through professional associations and otherwise to facilitate correct placement of scientific, engineering and managerial workers as well as the types of workers more usually listed in employment exchanges. Wartime devices such as the National Roster of Scientific and Specialized Personnel set up in the United States are suggestive. Better vocational outlook services and application of their findings through vocational guidance in school systems would promote occupational adaptation by directing new recruits to the most promising lines of industry.

Experience has shown that high specialisation of an industrial area on a few products and a few types of skill makes it more difficult for the area to adapt itself when its specialised industry encounters depressing influences.[1] In order to make future adaptations easier, therefore, it is desirable to encourage industrial diversification wherever this can be done without great sacrifice of economic productivity.

Measures to Encourage Industries that should Expand

A cardinal point of adaptation policy is to encourage the expansion of the promising industries rather than to prevent the contraction of the weak ones. But various obstacles may stand in the way of expansion in the very lines of production that should increase most as income rises. Monopolistic practices and agreements of business firms which restrict the use of new technology, divide up markets, and limit output are such obstacles. Prices are maintained at unjustifiably high levels, consumption of the products affected does not increase as much as it should, the expanded production and new employment which should arise is throttled back.

[1] (British) *Royal Commission on the Distribution of the Industrial Population* (Cmd. 6153, London, 1940), pp. 87-8, 199-200.

Restrictions on entry to an industry or occupation enforced by trade union practices, cartels, professional associations, or by special legislation have similar effects. So do outmoded jurisdictional rules and requirements designed to make work for traditional skills by preventing the use of semi-skilled men and new processes. In all these ways the expansion of output is prevented in lines that should absorb increasing numbers of workers.

One of the C-product industries, for example, which is widely considered to offer great promise for useful post-war expansion in the advanced countries is the housing industry. The redevelopment of terminal and other facilities in cities is also an enormous potential field for highly beneficial construction. Yet there are many obstacles to be overcome. These include unsuitable conditions of land ownership, monopolistic practices in the building industries, high interest rates, inflexible trade union rules, and fears of property owners that new developments will lower the value of existing investments.[1]

In a progressive society with high and rising standards of living one of the most important fields for expansion is professional services. For example, the services of physicians, dentists and the various technicians associated with medical care are increasingly demanded as incomes increase. If entrance to these and other professions is unduly limited by high educational costs, by quota limitations of professional schools or by restrictive entrance requirements of professional groups, the effect is to create group monopolies, to raise prices to levels that prevent many people from buying such services and to restrict expansion of employment in a highly useful direction.

On the positive side, measures to encourage the development and marketing of new products and processes are important. The advanced industrial countries will get the greatest benefit and least detriment from economic advancement elsewhere if leaders of industry, labour, and government adopt the progressive attitude that their job is to continue pioneering work. Industrial research by private institutions, encouragement of research and development and scientific and vocational training by governments, are all methods of facilitating adaptation. Private financial institutions as well as governments could promote industrial adaptation by finding means to make capital more readily available for launching new products. Tax adjustments might be made in favour of enterprises which use their own funds for pioneering research and development.

[1] Cf. Miles L. COLEAN: *The Role of the Housebuilding Industry* (pamphlet of the U. S. National Resources Planning Board, July 1942).

Comprehensive regional development programmes, such as that sponsored by the Tennessee Valley Authority in the United States, encourage the expansion of well adapted industries in many different ways. The T.V.A., for instance, has provided expert analysis of the resources of its region and has added to those resources by flood control, irrigation, power development and education of the population in improved techniques and skills. It has also carried the overhead costs of pioneer work in starting new lines of production. For example, T.V.A. engineers developed machinery which could be used by small mills in pressing oil from cottonseed. They then found several manufacturers who were willing to make the new machinery according to these designs and to market it at low cost.

Some interesting suggestions have been advanced for governmental encouragement of a concerted private industrial expansion. Agreed programmes would be worked out by government and industry for a considerable number of important products, based on the increased sales of each product that could be expected according to past experience, if national production as a whole were to expand by a certain amount. The government would then guarantee to purchase itself any amount by which total sales might happen to fall short of the expanded amount in the plans.[1]

Expansion of industry into desirable lines can also be encouraged by educational and other measures to promote better nutrition and to raise mass consumption standards generally. Better nutrition makes it possible to divert labour and capital from some of the agricultural staples in which overproduction threatens into increasing the output of the so-called "protective foods"—dairy products, vegetables, meat, etc.

In this connection one "new product" that is no longer quite new but which still offers great opportunities for expansion should not be forgotten. That is leisure time. Shorter hours and a shorter work week should absorb a considerable part of the labour time saved by improvements in production and exchange. Leisure for workers, in other words, can be one of the most important "expanding industries" for the advanced industrial countries as world development proceeds and as the necessities of life become available at lower cost through import and through general improvement in productivity.

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[1] Cf. Mordecai EZEKIEL: *Twenty-Five Hundred Dollars A Year* (New York, Harcourt, Brace, 1936), and *Jobs for All through Industrial Expansion* (New York, Knopf, 1939). The Industrial Expansion Bill based on this principle and introduced into the U.S. Congress by a group of representatives in 1937 is described in an article by Herbert HARRIS: "This Bill Bears Watching", in *Survey Graphic*, Apr. 1938, pp. 227ff.

Measures to Encourage Transfers out of Industries that should Contract and to Relieve Distress Connected with Contracting Industries

It is not industries as such that we want to protect, but people. In order to protect people, it is sometimes desirable to liquidate a particular industry in a particular locality. The problem then is to facilitate transfers into other industries, and to see that the burden of transition does not fall unfairly upon particular groups. That is a requirement not only of social justice but of practical economic statesmanship as well, for much of the resistance to adaptive adjustments ordinarily comes from the imposition of disproportionate transition costs upon an industry that should contract.

If an industry shows symptoms of weakness, such as inability to meet competition, the first adaptive possibility to be explored is in the industry's own technical and business efficiency. New methods and improvement in management may be enough to change the outlook entirely. Managers, industrial associations, trade unions and government agencies all have an interest in seeing that possibilities of this sort are explored.

When it is clear, however, that changes in the demand and supply situation make it advisable that a particular kind of production should be, if not completely abandoned, at least curtailed to the capacity of the more efficient plants, then what measures are available for assisting in an orderly withdrawal? One such measure is the provision of special vocational retraining facilities for workers on very favourable terms or even gratis. Job aptitude studies may help workers to find new fields in which their talents could best be used. The war has forced the development of many new methods of assisting workers to convert their skills from one occupation to another or to learn new skills quickly. Careful study of wartime experiments in this field should yield many suggestions for peacetime adaptation policy. The linking of vocational retraining to the system of unemployment benefits would be an important step in the direction of assisting adaptation.[1] The Unemployment Provi-

[1] Sir William Beveridge wrote in his social insurance report:

> Men and women who have been unemployed for a certain period should be required as a condition of continued benefit to attend a work or training centre, such attendance being designed both as a means of preventing habituation to idleness and as a means of improving capacity for earning. Incidentally, though this is an altogether minor reason for the proposal, such a condition is the most effective way of unmasking the relatively few persons who may be suspected of malingering, who have perhaps some concealed means of earning which they are combining with an appearance of unemployment. The period after which attendance should be required need not be the same at all times for all persons. It might be extended in times of high unemployment and reduced in times of good employment: six months for adults would

(*Footnote continued overleaf*)

sion Convention of 1934 provides that the right to receive benefit or an allowance may be made conditional on attendance at a course of vocational or other instruction.[1] Of course such a system would not be very successful if frequently at the end of a period of training there were no job to go to. Like most other measures to promote adaptive shifts in occupation, it needs as a basis a generally expanding economy.

An adequate and widely inclusive programme of social security, guaranteeing a certain minimum of well-being to all workers and their families in spite of industrial hazards, including hazards of occupational readjustments, is a basic fundamental for assuring more equitable distribution of transition costs among individuals. Also, it should increase the willingness of most workers to take risks in order to improve their position and therefore to adapt themselves more quickly to changing situations. Of course, certain methods of administering social security provisions might have exactly the opposite effect. For example, provisions that penalise workers who shift out of a particular industry or occupation or move from a particular locality are definitely anti-adaptive.

The social security systems of the advanced countries might well be re-examined from the point of view of their adequacy in protecting workers who are willing to be "mobile" and their influence on economic adaptation in other ways.

A suggestion has been advanced in England whereby special contracts of employment would be offered to workers prepared to make shifts more readily. Thus, *The Times* of London asks:

> Would it not be possible to introduce a scheme by which the State itself should become a third party to contracts of employment and carry the employee through intervals of unemployment at full pay? He would then be in the position of a soldier waiting at his depot for posting orders, and not of one flung out of the service. . . Such a scheme would have to be optional, since as a *quid pro quo* for the security provided, the worker would have to be willing, as occasion required, to change his trade and even the place of his home. . . The worker clamours for more security; the community needs more mobility. Both needs can be met if we give one as the price of the other.[2]

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perhaps be a reasonable average period of benefit without conditions. But for young persons who have not yet the habit of continuous work the period should be shorter; for boys and girls there should ideally be no unconditional benefit at all; their enforced abstention from work should be made an occasion of further training.

It is also proposed that authors, shopkeepers, business managers, housewives and others whose circumstances may have changed unfavourably should be entitled to a training benefit. (Sir William BEVERIDGE: *Social Insurance and Allied Services*, American ed., New York, Macmillan Company, 1942, paragraphs 122, 131, 328, 346, 349, 353, 383)

[1] INTERNATIONAL LABOUR OFFICE: *The International Labour Code* (Montreal, 1941), p. 30.

[2] *The Times* (London), 2 Mar. 1943, quoted in a forthcoming book on economic adaptation problems by Mr. A. G. B. Fisher, kindly made available in preliminary manuscript by the author.

Loans or subsidies to cover the costs incurred by a person who takes work or training at some distance from his present home would also assist in the transfer of labour.[1]

Provision of adequate housing facilities for workers in localities where jobs are available is also important.

A dismissal wage or severance pay for workers dropped from regular employment is a measure that has been proposed as a means of equalising the burden of transition costs.

The traditions of business and the rules of the taxing authorities regarding capital obsolescence may be important influences in some countries in preventing adaptive changes in industry. Unwillingness to write obsolete equipment off the books sometimes makes managers hesitate to introduce new methods that, once adopted, would actually increase the profitability of the enterprise. Remedies must be sought with care, for the subject is a complicated one, but at least it would be worth while to explore whether accounting processes as applied to amortisation of capital equipment are suited to modern industrial undertakings, and whether it would be feasible to encourage adaptive adjustments by allowing shorter terms of amortisation for tax purposes in certain industries on condition that funds accumulated in this way be put periodically into complete plant modernisation or into the launching of new products.

Experiments have been made in Great Britain and elsewhere with various methods of encouraging new industries to establish themselves in "distressed areas". One method that has given encouraging results is the setting up of private or mixed corporations to provide desirable factory accommodations, well equipped with modern facilities for power, transportation and other industrial needs. So called "trading estates" in Great Britain have developed centres of diversified industry in this way. Other methods include public developmental projects designed to improve the physical facilities for industry and also the education and labour skills of the people in distressed areas; tax reforms to lessen the burden of local taxation and thus to break a vicious circle by which high taxes in areas of declining industry discourage new industries from entering; and a policy of locating defence industries or public works in areas otherwise likely to be centres of chronic depression.

Educational Measures

An outstanding example of successful economic adaptation is Denmark's agricultural shift in the late nineteenth century from export of grain to export of high quality bacon, eggs,

[1] This is also included in Sir William Beveridge's recommendations.

cheese and butter. The adjustment, in retrospect, seems simple and obvious enough. Cheap grain was coming by improved transport methods from great new farmlands overseas. Great Britain with its rapidly rising standard of living made still higher by the cheaper grain imports, was now in a position to pay good prices for higher qualities of food. The invention of the cream separator and other changes in agricultural technique made a combination of dairying and hog-feeding more profitable. Yet to take full advantage of the new opportunities, the Danish farmers had to adopt a host of new ways of doing things. Also, they had to show political wisdom. The idea of "protecting" the domestic grain-growers from the new overseas competition was considered and rejected. The shift to new products was carried through to the accompaniment of much discussion. There was conscious adaptation, not merely blind response to changes in prices and costs, although the adaptation was firmly rooted in a new price-cost situation. After the adjustment was under way, the Danes organised their famous agricultural co-operatives, which helped still further to adapt the farmers' techniques, especially their marketing methods, to the new conditions. In political adversity (defeat at the hands of Prussia and loss of Schleswig, in 1864) influential Danish leaders had responded with the slogan "outward loss, inward gain". The Folk High School movement which rose out of that epoch did much to infuse into Danish rural people an attitude, a broadening of the spirit and of the understanding and a capacity to co-operate, which enabled them to meet economic problems adaptively. Confronted by new competition the Danish farmers might have clung fast to their old patterns of production, seeking "protection" against change. The course they adopted needed intelligence, flexibility and courage.

What can be done to encourage these human qualities of adaptability in all the countries where economic change will demand readjustments? No doubt something can be hoped for as a result of progressive increase in the general level of education. Perhaps it is even more important to place a new emphasis in education on the idea that ours is a world of constant change. Ability to understand new situations, courage and initiative in adjusting to them, both individually and in co-operation with others, are the qualities that will be needed more than ever in the world of tomorrow.

Mr. A. G. B. Fisher, in a suggestive discussion of factors which help and hinder economic adjustments, mentions a number of false beliefs and dogmas.[1] If these could be dispelled from the minds of

[1] *The Clash of Progress and Security* (London, Macmillan, 1935), pp. 46-7, 54-6, 62.

business men, workers, politicians and the general public the prospect for successful adaptations would be much improved. One of them is the notion that there exists some natural ratio which ought to be maintained between the numbers of people in primary production, such as agriculture, and the numbers in other kinds of work. Another is the notion that all resources should be fully employed—including land or equipment incapable of producing things in demand as cheaply as these things could be produced in other places by other means. The common notion of "aid to depressed industries" is also an obstacle to readjustment. Men who would not advise their sons to prepare themselves for a career in a depressed industry will nevertheless think it right that the government should keep depressed industries going or even help them to expand. It would be much better to encourage more rapid expansion of the promising industries which are doing relatively well, while aiding individuals in the depressed industries to make transfers. The whole notion of protectionism, which in its cruder forms denies, in effect, that any type of production once in existence should ever be expected to contract or that it is possible to shift to new types of production, likewise delays and impedes transfers that would benefit the community. Another impediment to adaptation is the widespread habit of thinking in terms of static economy with a fixed volume of demand. In a progressive economy, demand increases as productivity and living standards move upward. The educational function of bodies such as the International Labour Organisation is important in the effort to promote adaptive adjustments by dispelling just such false beliefs as these.

The managers of industry make many of the fundamental decisions on which industrial adaptation primarily depends. If their traditions and education fail to impart the requisite qualities of imaginative leadership, the consequences for a country's economy in a period of rapid change may be very grave. The task of the true industrial leader—the entrepreneur, the undertaker of something new—is beset with difficulties.[1] It requires a special kind of effort of will to work out new combinations and to bring oneself to look upon new ideas as real possibilities and not merely as daydreams. Outside accustomed channels of action decisions have to be based on incomplete information. The social environment may react against those who attempt to do something new, even to the extent of social ostracism or, in extreme cases, physical violence. To surmount such opposition and to overcome the obstacles which stand between the invention of a new idea

[1] Cf. Joseph A. SCHUMPETER: *The Theory of Economic Development* (Cambridge, Harvard University Press, 1934), pp. 84-90.

and its practical application in industry is a pioneering task. Some kinds of temperament and some kinds of education fail to encourage that pioneering impulse which is essential to economic adjustment in a changing world.

Broader education of workers may also assist in industrial adaptation. Unduly narrow skills are likely to impede transfer from one occupation to another. Perhaps still more important is lack on the part of some workers of the wider knowledge and wider outlook which makes it possible to see opportunities elsewhere and to appraise them correctly. Adaptiveness is increased by a type of education which emphasises broad, basic skills, and aims, not at preparing a man for one particular groove, but at enabling him to learn quickly the special techniques of a number of different occupations, and to adjust himself intelligently to the unforeseeable events of life. Not only a broad type of education, but also further democratisation of educational opportunities would make industrial adaptation easier. In the advanced industrial countries it is less true than in the past, but still true to some extent, that social and educational barriers prevent sons from entering occupations better than those of their fathers.[1]

A Comprehensive Programme of Expansion and Adaptation after the War

Where attention is centred exclusively on problem industries and the scope of remedial action is limited to those industries, there is very little room for adaptive policies. If the textile industry, for example, is in the doldrums because of new low-cost competition or for other reasons, an attempt to "do something for" that one industry alone almost invariably leads to restrictive proposals. The tendency is to seek measures that will exclude competition and that will restrict output in order to raise selling prices. Such measures, as we have seen, are likely to give only an illusion of security. If they are applied in any considerable number of industries they become mutually self-defeating, and everybody is worse off than before. The adaptive way to "do something for" the *people* of the

[1] Colin Clark, in *Conditions of Economic Progress*, pp. 76-7, 230, says that a surplus of unskilled workers in relation to skilled and higher professional workers has developed in some advanced industrial countries. There has been a shift in demand in favour of the higher skill, but transference from the ranks of the less skilled has not taken place rapidly enough. The resulting insufficient numbers of highly skilled workers, engineers, etc., in turn slows down the process of industrial expansion and prevents absorption of displaced workers. Clark quotes figures by Bowley to show that the most potent factor causing the surplus of unskilled labour in Great Britain is the existence of a large unskilled population in the last generation (for whom there was work at that date) coupled with the marked difficulty under the laws and customs governing apprenticeship and education for persons with low incomes to rise above the occupation of the father.

textile industry may be to expand the electrical industry, to increase the productivity and hence the buying power of consumers, including consumers in other regions, and to promote industrial diversification in textile areas. For this reason comprehensive programmes of development and adaptation covering many industries and whole regions have a better chance of success than attempts to deal with separate depressed industries one at a time.

Another reason why the comprehensive approach is important, if adaptive rather than restrictive measures are to be adopted, is that attention can be focused in this way on new opportunities, and not merely on new competition. A great contribution can be made to smoother economic adaptation after the war if governmental agencies, business groups and labour groups in each country keep realistically informed, by periodical surveys and re-surveys of trends which affect the viability and the prospects for future expansion or contraction of *all* the important phases of national industry. If one set of industry shows competitive strength and faces a rising demand for its products, while another set of industries finds its demand falling off and its products being produced more cheaply elsewhere, the constructive thing to do is evident. The situation should be made clear for the guidance of all persons concerned. In fact, an attempt to approach this problem realistically in the various advanced countries by means of periodic surveys of broad industrial trends and prospects, perhaps carried on jointly by representatives of government, business, and labour, could prove very worthwhile. An attempt might be made to group the different industries, or parts and subdivisions of industries, into broad classes, and especially to ascertain in each instance as clearly as possible why an industry fell within a particular group. The two major classes would be:

> Group A industries: Well adapted to the country and having a promising outlook; likely to respond especially well to efforts at encouragement and expansion.
>
> Group B industries: Industries in which the outlook is unpromising and from which there may be need to assist the transfer of workers and capital.

The industries of group A are those which vocational advisers and investment counsellors ought to recommend, towards which training programmes should be directed and in which public authorities should be most concerned to preserve freedom of expansion against monopolistic influences or domestic or foreign trade barriers. Public funds for assistance in industry in the form of basic research, marketing help, etc., would probably yield higher returns to the

nation in stimulating the growth of this group of industries than would any other form of public aid to industry.

The group B industries, on the other hand, are the problem industries. They are the ones in which labour is most likely to be underpaid and to have poor working conditions and irregular employment. Some of them would be found to exist only by reason of State subsidies, including import restrictions which confer the right to charge consumers more than an equivalent product would cost if consumers were allowed to import it freely. Others would be receiving subsidies, in effect, from labour or investors, through inability to pay wages or returns on capital equal to the current rate for equivalent services in better situated industries. This situation might be due to a slow rate of technical progress in the industry as compared with other industries, or to bad management, or to appearance of new sources of supply for the products of the industry, or to shifts in consumers' demands which affect it adversely. Public funds spent to sustain these industries or protective measures which enable them to exist by exploiting consumers are likely to be wasteful and extravagant, unless fundamental remedial measures are taken at the same time.

It would be good policy to require annual surveys of all industries currently receiving public assistance (subsidies, or import protection which enables them to charge as much as, say, 25 per cent. more than consumers would otherwise have to pay), reporting particularly in regard to each:

1. Measures taken in the industry during the past year to improve its productive efficiency by methods which lower the unit cost of output without a lowering, or with an actual increase, of the remuneration paid to labour and to invested capital.
2. The amount spent in the industry during the past year on research into new products and new methods of production and the effectiveness with which this research is being carried on.

A mixed committee drawn from business, labour and government might be set up to stimulate research for the benefit of these industries and perhaps to undertake laboratory studies and market analyses which would be made available free to the industries concerned. Their object would be to find either improved and more efficient methods of turning out the old products, or new products to which the industry's personnel and capital could be assisted to transfer.

The International Interest in National Adaptiveness

If internal production structures within the different countries are flexible and adaptable, then world industrial development can

proceed with a minimum of disadvantage and maximum of advantage to all. If, on the other hand, the expansion of some industries and the contraction of others is so beset with obstacles and difficulties that industrial adaptation takes place very slowly or not at all, then there will be chronically depressed industries, needlessly high unemployment and needlessly low wages. The bitterness arising out of these conditions may express itself in "protective" measures that throttle international trade and block international assistance in the development of new areas.

The analysis of the preceding chapters leads, therefore, to the conclusion that *internal* production structures within the various countries, and especially their flexibility, have an enormous *international* importance. Particularly in the post-war period, the willingness of peoples and governments in the various countries not merely to permit, but positively to encourage, the shrinkage of some lines of industry and the expansion of others, and to facilitate transfers of workers and capital will have a great deal to do with determining whether the world as a whole can achieve stable economic progress. It is, therefore, in the interest of all countries that each should be encouraged and assisted to take measures that will help adapt its own production structure more quickly and effectively to changing economic conditions. Here is a new field in which international consultation and agreed action might well be sought.

The "reconversion" of industry after the war from military to civilian pursuits will offer, together with great problems, some important opportunities to convert to a *better adapted* structure of production than that which existed before. It would be a sad mistake to go back to the old lines of production that required government subsidies and protection, rather than the new and more promising lines which, assuming that we can maintain a generally high level of employment and income, will be natural candidates for expansion. This is only one of many urgent reasons for immediate surveys by national agencies, public and private, and for some coordinating survey under the auspices of an international body in order to give indications on a world-wide basis of those lines of production that will need to be expanded after the war and those that will need to be contracted. In many, if not most, cases the costs of post-war transition from the wartime structure to a fairly rational peacetime structure—one permitting increased exchanges of goods with other countries—would be no greater than the transition costs of returning to the old irrational structure. And the long-range benefits would be immeasurably greater.

CHAPTER XII

INTERNATIONAL ARRANGEMENTS TO EASE TRANSITION ADJUSTMENTS

What can be done internationally to prevent unduly disruptive impacts upon the trade and production of established industrial areas as a consequence of progressive improvement in productivity and levels of living abroad? How can the transition adjustments set in motion by economic developments be made to result in the greatest permanent gains and the smallest detriments, both for the newly developing economies and the advanced economies?

In the first place, referring back to the analysis of Chapter VIII, it is in the interest not only of the people of the newly developing countries but of the advanced countries as well that development programmes should raise the real income and purchasing power of the masses of the population as rapidly as possible. Projects which merely substitute local production at high cost for articles previously imported, with no gain for consumers and no expansion in total use of these or other commodities, would deprive the advanced countries of export demands without opening alternative demands. And they would not benefit the local people very effectively. Such projects could justifiably be discouraged by agreement and by withholding international aid.

The kinds of projects that most deserve international assistance are those offering the greatest practicable prospects of raising the efficiency of production. These will generally include, in the less developed countries, improvements in communication and transportation; development of cheap sources of power; experimental, pioneering and demonstration work in introducing better methods and equipment into agriculture and into the production of simple goods of mass consumption; fostering of a few carefully selected new types of industry chosen for their appropriateness to the resources of the country and to the country's lines of "comparative advantage" in the world market; and—likely to pay higher dividends in increased productivity than almost any other investment—elementary mass education, training in vocational skills, and advanced technical training for those who show special talent.

It is to the advantage of both groups of countries, from the point of view of encouraging the most rapid rise in real income as well as from other points of view (such as the soundness of loans), that the best technical assistance and the maximum amount of it that can effectively be used should accompany international capital investment.

If the rising national income resulting from increased productivity in a newly developing country flows quickly to the people and is widely distributed, this will mean a faster increase in consumption than would otherwise be the case, and consequently a somewhat slower increase in the local availability of capital funds for further productive development. The period during which the country draws on foreign capital will thus be longer. That, however, would not be an important disadvantage in an expanding world economy, if we may assume a reasonable degree of success in preventing great wars and great depressions. It is economically sound that the savings which go into world development should come in large part from the areas where saving is least costly, namely, from the advanced countries, and should be repaid later out of the increased productivity of the developing countries when it has become easier for them to save. As was indicated in Part I, additional outlets for savings are likely to be of direct benefit to some of the more advanced countries for some time to come. They can well afford to finance the expansion of the newly developing countries over a longer time in order that, without slowing down the rate of development, the incomes of the people spendable on consumption may rise more nearly in pace with rising productivity. For the trade prospects of the advanced countries are brightest and their own problems of industrial adaptation are easiest under these circumstances.

Also, a rapid rise of popular income in a newly developing country, combined with freedom for the people to spend their incomes on imported goods if they wish, will add to the foreign exchange needs of the country. The soundest adjustment would be a rapid increase in exports, rather than a restriction of imports. But if there are obstacles which prevent such two-way trade expansion, there will be three alternatives open: (1) to slow down the rate of development of projects requiring imported supplies and technical services; (2) to restrict the importation of goods for consumption; or (3) to obtain additional foreign loans. The advanced countries, which have an interest in a rapid rise of income and trade in order to make adjustments easier for their own industries, will need to weigh factors of this sort in determining their own import policies and in deciding how extensively they should finance the new areas.

In the second place, it is important in the interest of all concerned that developmental policy be linked to appropriate trade policy, both in the newly developing and in the advanced countries. Policies that encourage flexibility and expansion are needed.

It has already been observed that in promoting economic development the newly developing countries will want to subsidise, for a time, some "infant industries" which cannot initially turn out their products as cheaply as similar goods could be imported. The choice of methods in this connection is important. It would be better, both for the newly developing and the advanced industrial countries, if the methods selected were such as not to restrict consumption. The time-honoured protective import tariff as a device for subsidising infant industries has important disadvantages in this respect. In order to permit the infant industries to operate at a profit the protective duties raise prices to domestic consumers above the prices that they would otherwise have to pay for imported goods. This causes a decline in the consumption of precisely those articles in which it is desired to expand local production. The restriction of consumption also affects the producers in countries from which the goods have hitherto been imported. They are forced to contract their output, unless alternative markets are available. Can other methods which will not have these disadvantages be used to encourage infant industries?

A preferable way would be to give direct assistance to carefully selected infant industries by paying costs of initial research and engineering out of the government treasury, by training workers in government subsidised technical and vocational schools, by offering suitably developed sites and buildings for lease at less than full cost, and by covering deficits during the first few years of operation. The industry so aided would sell at prices competitive with imported goods. The consumers would thus continue to get their goods at low cost, and, as income and consumption expanded in the country, they would presumably expand their purchases very markedly. The new industry would expand to meet the increasing domestic demand for its product.

If the infant industry had been properly selected in the first place, it would be able to take over and hold most of the growing domestic market on a competitive basis, subsidies having ceased. Foreign producers might continue to supply part of the market. Perhaps their sales would decline in absolute volume, or their sales might even increase while supplying a declining percentage of the growing total demand. In any case, they would not suddenly be confronted with a high protective tariff or a restrictive quota and would have time to make adjustments gradually.

This method would have the additional advantage over the usual protective tariff or quota that the government would be able to know at any time just how much a particular assisted industry was costing the country, and whether the infant was showing any capacity to grow up. A protective tariff or quota, on the other hand, gives a *concealed* subsidy in the form of higher prices collected directly from consumers, and the amount of such a subsidy is never clearly apparent.

The main difficulty, from the point of view of governments of less developed countries, would doubtless be the necessity of raising funds through taxes in order to finance the programme, including the direct subsidies proposed. A protective tariff or quota, in effect, levies a tax on every purchaser of the protected commodity by causing him to pay a higher price than he would otherwise need to pay. This concealed tax, which never gets into the government treasury, goes directly to the producer as a concealed subsidy. Like any other tax on consumption, it is anti-expansionary and, when applied to an article of common necessity, bears most heavily on low-income groups. From the point of view of good tax policy, it would be better to raise money by some more suitable and equitable type of taxation, such as a tax graduated according to income. However, the concealed tax-subsidy of the protective import tariff or quota does have the administrative and political advantage that it is easy to apply, and the more equitable types of direct taxation may be beyond the administrative capacity of less developed countries.

A possible compromise is as follows. An import tariff *for revenue* could be imposed on practically all goods entering the country and especially on luxury goods. Low rates which would not greatly restrict imports but would permit collection of a moderate tax on a large total volume of goods would be most effective for this purpose. Then the revenue so raised could be used to assist selected infant industries, as outlined above. This would be less restrictive on international trade and on domestic consumption than tariff protection.

In general, *sudden* readjustments of established industries are harder than *gradual* ones, and the necessity of an *absolute* contraction in output poses much more troublesome problems and involves much heavier transition costs than a *relative* contraction which represents merely a slowing down of the rate of growth as compared with other industries. Agreements might be sought with the newly developing countries in which they would undertake to take such considerations into account, as applied to established suppliers of import goods, when framing their own programmes of industrial promotion. If infant industries could be reared to meet new and

growing demands as income rises, avoiding bitter and costly struggles with established industries for the right to satisfy the previously existing amount of demand, the advantage to all concerned might be considerable.

The newly developing countries might be expected to co-operate in arrangements of this sort, and also to permit their people to import the specialities of the advanced countries rather freely as their incomes rise (especially the goods called "A-products" in a previous chapter), *provided* that the advanced countries were willing to do two things: (1) make capital and technical assistance available to the newly developing countries on reasonable terms, in considerable amounts, and regularly over a period of years; and (2) permit increased imports into their home markets of goods produced in the newly developing countries. The first point has been discussed earlier. The second needs emphasis.

The newly developing countries will need to acquire foreign purchasing power with which to pay for capital goods imported from abroad and to pay the interest and amortisation on loans. If they are not able to earn adequate amounts of foreign exchange by increased exports (and a rigidly protectionist attitude on the part of the advanced countries would prevent them from doing so) they will find it necessary to restrict their own imports artificially below what their enlarged incomes would suggest, in order to protect their balance of payments positions. In other words, if China, India, Latin America and the other newly developing areas are able to market increasing amounts of their characteristic specialities in the advanced industrial countries, directly and through multilateral trade channels, they will be able, reciprocally, to admit the products of the advanced countries into their own expanding internal markets on favourable terms, but not otherwise.

A policy of welcoming considerably increased imports of low-cost goods (the "B-products" discussed earlier) is, as part of a general programme of world economic expansion, distinctly in the interest of the advanced countries. If the markets for the types of goods in which they have a comparative advantage and for locally consumed goods and services (the "A-products" and "C-products") are expanding, necessary adaptations to the inflow of new "competitive" goods can be made rather easily and with lasting gain. The opportunity to purchase the low-cost imported goods then makes the pay-check go that much further; that is, it means an effective increase in real income. The benefit is likely to be especially marked for low-income groups, because the export products of newly developing countries in so far as they are finished goods are likely to be the cheaper necessities of mass consumption.

A final means of softening the impact of new economic development upon the established industries of advanced countries is the adoption and enforcement of progressively rising labour standards, adjusted to the circumstances of each area, but moving upward as productivity moves upward. Such standards would also be in the interests of the people of the newly developing countries themselves. It would be desirable to specify, perhaps in connection with the granting of developmental loans, that modern working conditions should be introduced along with modern equipment and that wage rates should not be permitted to lag far behind the increasing efficiency of labour. A gap has often appeared in the past in areas of new industrialisation between the increased productivity of labour, made possible by new methods and machines, and the current rate of wages. The existence of this gap creates a strong inducement for capital and enterprise to enter the highly profitable new industries and expand them and the tremendous rate of profits is a means of accumulating capital. However, these same functions (expansion of new industries, accumulation of capital) can be performed otherwise. More moderate rates of profit, combined with public developmental aid (national and international) in such fields as education, vocational training, developmental research, underwriting of initial risks, etc. would encourage industrial expansion by methods more socially beneficial. If decent working conditions are introduced together with modern industrialism, and if the wages paid to labour rise in proportion to the increase in labour productivity, then the fears in the advanced industrial countries of low-priced competition based on labour exploitation will lose their basis in fact. Shifts in the production structure of the world can take place more smoothly and with greater mutual benefit to all parties.

PART III

SOME BROADER IMPLICATIONS OF ECONOMIC DEVELOPMENT IN NEW AREAS

CHAPTER XIII

POPULATION PRESSURES, POLITICAL POWER AND CULTURAL INFLUENCE

This study has been focused upon the economic repercussions in the advanced industrial countries of economic development elsewhere, especially the modernisation of areas that at present have very little up-to-date equipment. Part I considered the effects arising out of the process of investment and the various methods by which these investment effects might be made as advantageous as possible to all parties concerned. Part II offered a similar analysis respecting the shifts in production and trade which may be expected as the productive efficiency of newly developing areas increases.

No more than passing mention can be given here to influences which may impinge upon the advanced industrial countries by way of political and social channels. It is well to recognise, however, that their consequences may be very important. The political effects, for example, of the spread of modern industrial methods to that half of the world's population which still is pre-industrial may, in the long run, have more influence on the advanced industrial countries—even on their *economic* conditions, such as the employment and income of their workers—than any of the investment or trade repercussions dealt with in preceding chapters. The truth of this observation is instanced by the manner in which Japan's newly developed industrial efficiency, turned to the support of aggressive political designs, has involved other countries in devastating and costly war and has contributed to a sequence of events by which peaceful economies across the world have been converted into arsenals.

This chapter, therefore, will outline very briefly and with no pretence of adequate treatment—simply in order to call attention to these issues—three topics which certainly deserve more systematic exploration than it is possible to give them here. They relate to the effects of economic development in new areas upon: (1) population trends; (2) the distribution of political power; and (3) the flow of cultural influence.

Population Trends

On the basis of past experience it seems certain that one of the first effects of economic development in less developed areas will be to lower the death rate. Economic development brings increased wealth and increased technical knowledge, making possible more healthful living conditions. These include better food and clothing, improved housing, drainage and water supply, and better facilities for the prevention and cure of disease. In the countries where modern production methods first appeared the death rate declined drastically as industries progressed. This experience has been repeated in every country that has since built up a modern economy. For example, in England and Wales the annual number of deaths per 1,000 of the total population fell from the neighbourhood of 30 to 35 in 1740 to 27 in 1800, to 22 in 1860 and to about 12 or 13 in the 1920's.[1]

Birth rates, on the other hand, respond more slowly to the changes associated with economic development, although they, too, fall after a certain time-lag. In England and Wales, according to the best information available, the annual number of births per 1,000 total population remained fairly steady in the neighbourhood of 35 to 37 during the whole century from 1740 to 1840. Then it fell slightly and remained around 35 until 1880. Thereafter, it dropped rapidly, reaching 30 in 1900, 25 in 1920 and 15 in the 1930's.[2] This reaction of the birth rate in England and Wales is also typical of the experience, so far as it has been observed thus far, in countries that have later adopted modern industrial methods, including Japan as well as western countries.[3]

Voluntary limitation of the size of families appears to be the major means by which a fall in the birth rate comes about as economic development proceeds, though there may be other influences at work which are still imperfectly understood.[4] Each infant born has a greater chance of living to maturity, so parents have less reason to want a large number of births. Also, the urban life associated with modern industry is less conducive to large families than rural conditions, in which children become economic assets at an

[1] A. M. Carr-Saunders: *World Population: Past Growth and Present Trends* (Oxford, Clarendon Press, 1936), pp. 61, 72. When the crude death rate is corrected for changes in age composition of the population the fall in later years is shown to be somewhat less, from about 23 in 1860 to about 16 in the 1920's.

[2] *Ibid.*, p. 61, and League of Nations: *Statistical Year-Book, 1938-39*. On trends of birth rates and other significant points connected with populations, see the very interesting chapter in League of Nations: *World Economic Survey, 1938-39*, on "Population and Migration".

[3] Cf. E. F. Penrose: *Population Theories and Their Application, With Special Reference to Japan* (Stanford University, California, Food Research Institute, 1934), Chapter IV.

[4] A. M. Carr-Saunders, *op. cit.*, Chapters VII–IX.

early age. When living standards rise, parents wish to give each child a better start in life, including a longer and more expensive education. Therefore they limit the number of children. The emancipation of women, another consequence of more modern production methods, also leads to smaller families. Whatever the exact reasons, the universal effect of modern economic development has been to lower the birth rate as well as the death rate. But the death rate falls first, and the birth rate follows only after an interval of time.

The immediate effect of a rapid fall in the death rate while the birth rate lags behind is, of course, to produce a surplus of births over deaths. The total population of a country adopting modern industrial methods may thus increase swiftly. For example, the population of England and Wales grew from about six million in 1740 to about 16 million in 1840 and 41 million in 1940, despite the fact that vast numbers migrated out of this area in the nineteenth century to North America and other overseas destinations. The expansion of population in Europe as a whole and in the areas of European settlement overseas can be seen in the table of world population below.

TABLE 21. ESTIMATED POPULATION OF THE WORLD 1650-1933[1]
(*millions*)

Continent	1650	1750	1800	1850	1900	1933
Europe	100	140	187	266	401	519
North America	1	1.3	5.7	26	81	137
Central and South Amer.	12	11.1	18.9	33	63	125
Oceania	2	2	2	2	6	10
Africa	100	95	90	95	120	145
Asia	330	479	602	749	927	1,121
World total	545	728	906	1,171	1,608	2,057

[1] Estimates by W. F. Wilcox as revised in A. M. CARR-SAUNDERS, *op. cit.*, p. 42.

The growth in population of western Europe and countries of western European civilisation in the last century or so has been phenomenal, but the indications are clear that it is now slackening off. The best index of population trends is the "net reproduction rate". A net reproduction rate of one means that, if current rates of fertility and mortality remain unchanged, the population will just reproduce itself from generation to generation. A rate above one indicates, on the same assumption, a long-run tendency to grow, and a rate below one a long-run tendency to decline. Recent data for some countries of western Europe show: England and Wales 0.80 (1938), Sweden 0.78 (1940), Belgium 0.86 (1939), Switzerland 0.79 (1940), France 0.90 (1939), Germany 0.98

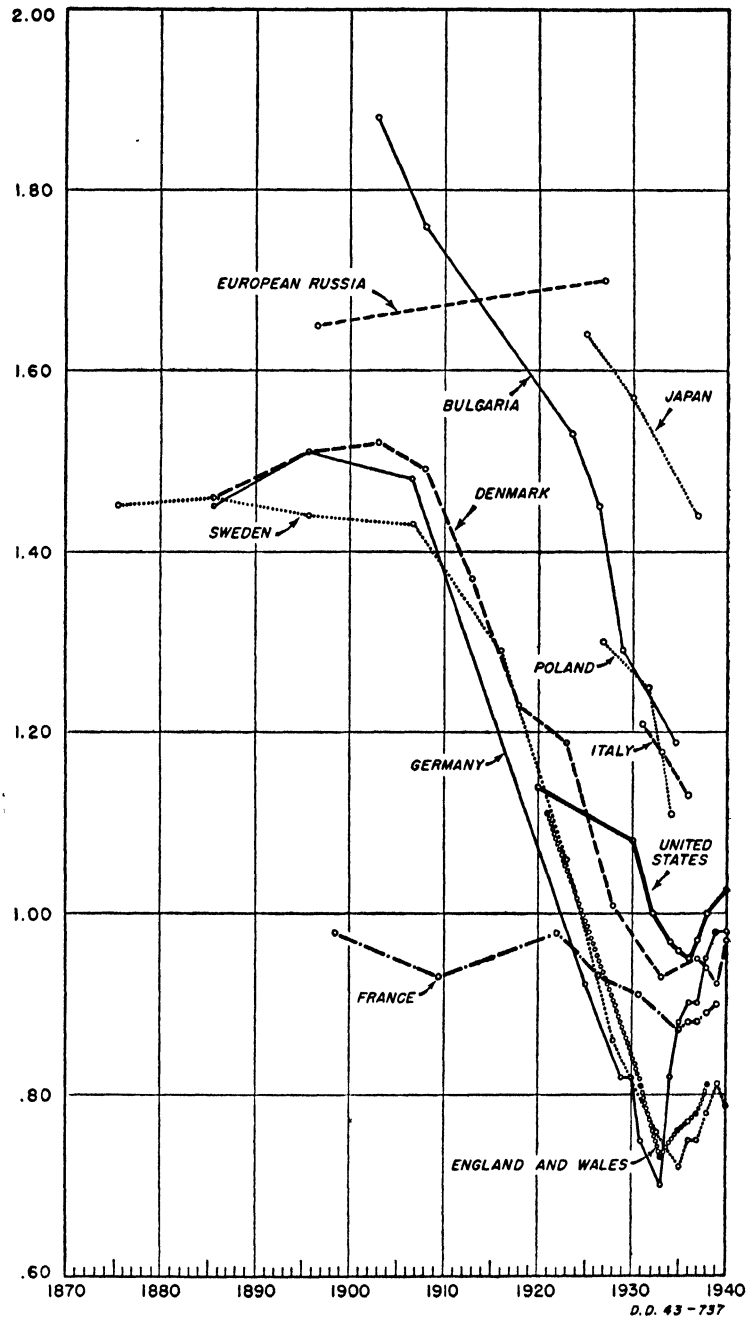
(1940). In the United States the net reproduction rate was 1.02 in 1940.[1] These are industrially advanced countries which have attained high living standards. The extent to which the net reproduction rate has fallen in some of these countries from high levels that prevailed during their earlier periods of rapid economic development and rapid population growth is shown in chart 20. On the other hand, the population is still more than reproducing itself in countries that have been exposed for a shorter time to the influence of modern production and rising living standards. This is evident in the rates shown in chart 20 for countries of eastern and southern Europe and for Japan. Even in these areas, however, it seems clear that as economic development brings better living standards the tendency of the birth rate, as well as the death rate, to fall is manifesting itself.

We are justified then in saying that a "population cycle" has been associated with economic development in the past. First, the death rate falls, followed after a time-lag by the birth rate. The immediate result is that total population increases rapidly. Later, the birth rate begins to overtake the death rate and population grows less rapidly. At a stage of advanced economic development and high living standards, the stage now attained by many of the countries which first adopted modern production methods, population growth ceases and the total population even begins to decline. There is some indication that efforts to regularise employment, social security measures and better provision for children in advanced industrial communities may arrest this downward trend, but that remains to be seen. Meanwhile, it is the first phase of the population cycle in countries of new economic development that concerns us.

Some of the countries that are potential candidates for modern development are sparsely populated. This is true of many of the Latin American countries. Others, however, and especially those in Asia, are already densely inhabited—much more so than any of the countries of Europe at the beginning of Europe's industrial revolution. Indeed the average density of population in China is about 250 per square mile, which compares with 184 in modern Europe west of Russia and 41 in the United States. The concentration in certain areas of China is much greater, estimates running as high as 600 per square mile in Shantung and 900 in Kiangsu.[2] In India the density per square mile is 250 and in Java it is 950, the highest of any country in the world. These are very high figures for countries living predominantly upon agriculture. It will be ob-

[1] LEAGUE OF NATIONS: *Statistical Year-Book, 1941-42*, pp. 50-51.
[2] A.M. CARR-SAUNDERS, *op. cit.*, pp. 286-7.

Chart 20. Net Reproduction Rates in Selected Countries[1]



[1] A. M. CARR-SAUNDERS, *op. cit.*, table opposite p. 123, compiled from KUCZYNSKI and other sources; LEAGUE OF NATIONS: *Statistical Year-Book, 1941*, pp. 48-9, and *Monthly Bulletin of Statistics*, Nov. 1943, pp. 291-2.

served from the table of world population above that Asia has experienced a considerable increase in population over the last two centuries. Death rates have fallen under the influence of contacts with Europe. Over the last century and a quarter the population of Java has increased very rapidly, rising from 4,500,000 in 1815 to 48,416,000 in 1940. In India the population grew from 254 million in 1881 to 353 million in 1931 and 389 million in 1941.

Mr. Carr-Saunders is of the opinion that population growth in Java, China, India and similar areas has thus far occurred almost wholly because of improved political conditions, which result in less internal disorder. He thinks that in these areas the three factors which played the most important part in the century of great population expansion in the west have as yet had very little effect on the masses of the people. These three factors are better food and clothing, better sanitary conditions and better medical knowledge and treatment. When improvements in these fields begin to have an important influence on the population situation in Asiatic countries the death rate may drop much more rapidly, resulting in an enormous spurt of population growth.

It must be remembered that the population problem of Asia, in case modern economic development starts a great expansion in numbers, will differ from that of nineteenth century Europe in two important respects. In the first place, the base from which the start is made is much larger. There are perhaps 450 million people in China, almost 400 million in India and more than 1,000 million in all Asia, making more than one half of mankind. In the second place, Europe's expanding population was able to spill over into great, well endowed areas overseas, mainly North and South America, inhabited only by a very few primitive people. No such opportunity for mass migration exists today.

In consequence, a downward movement of the death rate in these heavily populated areas, unless accompanied much more quickly than in the past by a parallel downward movement of the birth rate, could have catastrophic consequences. A sudden great surplus of births over deaths might very seriously retard and even wipe out the gains in standard of living which the people of these countries will hope to achieve by economic development. The pressure of population might express itself internally in civil strife and externally in international disputes and wars.

The people of advanced industrial countries would find their interests affected by such a calamity. They, with relatively stationary or declining populations and conspicuously high living standards, would be spread relatively sparsely over some of the most fruitful and certainly the best developed land areas of the world.

Their condition would present a striking contrast to that of the Asiatic countries. The world might thus divide into two great contending groups. The one, disappointed in its hopes of progress towards popular welfare by adoption of industrial techniques, might be pathologically conscious of "population pressure". Despite its low living standards, it could nevertheless be proficient enough in modern industrial techniques to be militarily powerful. It would be tempted to blame the "haves" of the world for its economic troubles and to contemplate redistribution of territory by conquest. The "haves", on the other hand, might feel driven in self-defence to adopt a non-co-operative or even a repressive attitude which would add fuel to the conflict. This is not a prediction of what *will* happen, but simply a statement of what *might* happen if insufficient attention is given to population reactions as modern economic development takes place in these most heavily populated areas.

In an attempt to avoid the troubles outlined above three lines of thought suggest themselves. First, it is desirable that improvements in technique, equipment and skills be pushed ahead *very rapidly* in these heavily populated countries so that the rise in the efficiency of production will outstrip the tendency of the population to increase. In this way important gains in living standards may be made quickly, even if the population does increase rapidly for a time. The more speedy attainment of high living standards may be expected to hasten the tendency of the birth rate to fall, since experience shows that high living standards produce low birth rates. It is possible, of course, that revolutionary improvements in productive techniques, including new applications of science and new methods of social organisation for production, may so increase output from a given land area that population densities which today would seem fantastic will be supportable in the future with no great difficulty. But it is probably unwise to count on this as a safety valve for the population problems outlined above.

Secondly, it is desirable that economic development in heavily populated areas should bring not merely increased production and consumption of goods, not merely improved sanitation and medical care, but also rapid educational progress for the masses of the people and a rapid rise of cultural standards. If a large proportion of the increased income resulting from improved production is devoted to mass education, this would tend to reduce the lag between the fall in the death rate and the fall in the birth rate, for everywhere better educated people have manifested a desire for fewer but better reared children.

Thirdly, in view of the problem which will arise if the time-lag between the fall of the death rate and the fall of the birth rate is not reduced, peoples in the areas of potential population pressure will seek knowledge of methods of birth control at the same time that they are acquiring industrial and medical knowledge enabling more people to survive. Agencies administering international development funds and assisting with technical advice may have to concern themselves with the question whether population is pressing too heavily on the means of subsistence. Indeed, it may even be argued that an educational campagin to counteract social and religious taboos which might prevent family limitations should be recognised as an essential part of the effort to raise living standards in regions where overpopulation threatens.

Political Power

The profound effect of economic development upon political power and political leadership in world affairs is easily demonstrated. It is only necessary to point to the political position which pre-eminence in modern industry gave England in the nineteenth century, to the military and political effects of the rise of German industry, to the industrial and political rise of the United States and to the political influence which modern industry brought to Japan and the Soviet Union. Industrial development is not only a means of attaining higher standards of living but is also the basis of modern military power. Indeed, one of the main incentives to rapid economic transformations in a number of countries during recent years has been the urgent desire on their part to increase their military power. This incentive will certainly play a major role in China, for example, after the present war. The adoption of modern industrial methods in Asia, Africa, south-eastern Europe and Latin America will ultimately have the effect of enhancing the influence of the peoples of these areas in determining the political destinies of their own regions and of the world. Economic development of new areas will no doubt lead to a more even distribution of world political power.

Will the rise of all these newly developing countries in the world power scale mean a lengthy series of wars for power and position, until some new "balance" is established, or until some super-dictator subjugates most of the world and establishes a Roman peace? Will each new practitioner of modern industrialism be impelled to follow in the path of Germany or Japan? Or will the newly developing countries throw their influence on the side of a world system of security and orderly change under law, thus

assuming in a more peaceful manner the new responsibilities that will come with rising power?

It is not proposed to speculate on the answers to these questions. But it is necessary to point out that the entire validity—or rather, the relevance—of the economic analysis in the preceding chapters depends upon the answers to them. Repercussions felt through the channels of investment and trade will be quite secondary in importance if political relationships are allowed to take such a course that the economies of the advanced industrial countries have to be used primarily for military production and only secondarily to raise civilian living standards. The kind of political—and hence, economic—consequences which may be expected as a result of new economic development will depend upon the reactions of the people in the newly developed areas to greater power and responsibility and upon the kind of world political system which the victorious United Nations may initiate after the present war. If it is to prove possible to turn the enormous industrial apparatus of the advanced countries and the skills of their workers towards the building of houses, improvement of cities and production of better civilian goods, instead of towards bombing planes and tanks and air-raid shelters, then the general political problem of world organisation for security and the specific political problem of bringing newly developing areas peacefully into their rightful place in the world system will have to be satisfactorily solved.

Cultural Influence

Just as profound in its long-run effects, and still more difficult to predict, may be the cultural influence of the newly developing countries as their peoples acquire greater capacity to produce and consume. Economic advancement brings with it a much more ample material basis for universal education, more leisure and means for cultural self-expression, and the enhanced prestige which is associated with greater wealth and power.

In the field of science, it seems reasonable to suppose that successful economic development in areas not now able to support scientific research would eventually provide the world with twice as many laboratories as it might otherwise have and that mankind could thereby uncover the secrets of nature so much faster. Who can say what this may mean to the intellectual and economic life of the world? Great Britain's system of parliamentary government and the common law, American skyscrapers and methods of mass production, the comprehensive five-year economic plans and the social experiments of the Soviet Union, are examples of new

cultural patterns which, partly because of the industrial power of the countries that originated them, have exerted a pervasive influence in many other parts of the world. What new trends in law, ethics, morals, religion, education, music and literature will be set going as the newly developing countries rise in cultural influence? This is not the place to discuss such questions, but it does seem safe to say that the development of modern production methods in the countries hitherto on a low economic level will greatly enhance their influence, for good or ill, on the trend of civilisation in general. Mutual interchange between diverse cultures will supersede the predominantly one-way flow that was founded on the superiority of western industrial techniques, and the period of cultural "imperialism" of the West will recede into the past.

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INTERNATIONAL LABOUR OFFICE

WORLD ECONOMIC DEVELOPMENT

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by

Eugene STALEY

APPENDIX TO CHAPTER IV

by

Robert W. TUFTS

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by

Robert W. TUFTS

Data are available in the official *Financial and Economic Annual of Japan*[1] on the paid-up capital and, after 1905, the reserves of companies (limited partnerships, ordinary partnerships, and joint stock companies). The data are grouped by branches of enterprise: agriculture, industry, commerce, and transportation. The same official publication also gives figures on national and local governmental debts outstanding, and the purposes for which the debts were incurred. Local governmental loans have been used almost exclusively for local public works. One of the classes into which national loans are divided is "economic undertakings". This class has averaged 25.3 per cent. of the total outstanding national debt throughout the years under consideration. National governmental loans incurred for economic undertakings have been devoted almost entirely to railroad development.

An estimate of yearly capital investment in Japan has been derived by adding the increment in paid-up capital and reserves of private companies, the increment in local governmental debts, and 25.3 per cent. of the increment in national governmental debts. The estimate of capital investment so obtained undoubtedly errs on the conservative side. It excludes much which has ordinarily been included by economists treating the growth of capital in various countries. It excludes, for example, investments by individuals (by the individual farmer in livestock, farm machinery, farm buildings, etc.; by professional people, such as doctors, in buildings and equipment; by individual investors in buildings, etc.) and investment by local and national governments made from current revenues. It also excludes investments by the national Government for armaments, war, and all purposes other than economic undertakings. These various classes of investment have been excluded partly because it would be almost impossible to

[1] Published by the Department of Finance, Tokyo, since 1900.

secure accurate estimates of the amount of such investment but also because we are chiefly concerned with the process of industrialisation, with the accumulation, that is, of capital used in production. We deliberately exclude, therefore, national loans incurred for armaments and war and similar purposes. Investments by individual farmers and professional people are not deliberately excluded, but the data are not available. These exclusions should be remembered in any comparisons of the data used here for Japan with estimates on the growth of capital in other countries by writers who do make provision for these other types of investment.

The data used here probably reflect net investment, not gross investment. Under the usual accounting methods this would probably be true of the statistics on paid-up capital and reserves of private companies. Since the data used for local investment in public works are the annual increases in local indebtedness, these figures may even understate the net investment in local public works. The figures used for national investment in economic undertakings are, as explained above, a certain percentage of the annual issue of government obligations. These figures would represent, therefore, gross investment, but since no allowance is made for investment in economic undertakings from current revenues, it is probable that these figures, too, more nearly correspond to net investment.

In order to facilitate the use of these figures in speculating about the possible rate of investment for industrial development in other parts of Asia, the estimates of annual investments in Japan are presented below in two parts. First, investment in industry and commerce and local public works is presented as "Type I Investment". It will later be assumed that investment of this sort is more closely related to population than to extent of territory. A second tabulation is then presented of "Type II Investment", consisting of investment in agriculture and transportation. It will later be assumed that investment of this kind is more closely related to land area than to population.

Capital Investment in Industry and Commerce, and Capital Investment in Local Public Works, 1896-1936 (Type I Investment)

In table I are presented the data on the annual increase in the paid-up capital and reserves of private companies engaged in industry and commerce and the annual increase in the indebtedness of local governments. Columns 1 and 2 show, respectively, the annual increase in the paid-up capital and reserves of industrial

and commercial companies and the annual increase in local debt, while column 3 gives the total of the first two columns. In column 4 is presented an unweighted index (1900 equals 100) of pig iron, steel and coal prices, which has been computed from data appearing in the *Financial and Economic Annual of Japan.* This index is

TABLE I. TYPE I INVESTMENT

Capital Investment in Industrial and Commercial Companies and Capital Investment by Municipal Governments in Japan, 1896-1936

Year	1 Industrial and commercial	2 Local	3 Total Type I	4 Price index of investment goods	5 Total at 1900 prices (million yen)	6 Total at 1936 prices (million yen)	7 Total in 1936 dollars (millions)
1896	268.8	.2	269.0	87	309	557	161
1897	70.1	5.8	75.9	99	77	139	40
1898	60.8	7.1	67.9	102	67	121	35
1899	79.1	8.4	87.5	103	85	153	44
1900	72.9	10.9	83.8	100	84	151	44
1901	48.8	8.5	57.3	99	58	104	30
1902	60 8	9.9	70.7	99	71	128	37
1903	19.0	6.0	25.0	92	27	49	14
1904	26.7	−2.1	24.6	87	28	50	14
1905	57.1	−2.4	54.7	111	49	88	25
1906	150 7	15.0	165.7	127	130	234	68
1907	214.0	11.7	225.7	122	185	333	96
1908	123.7	10 6	134.3	117	115	207	60
1909	156.7	63.1	219.8	112	196	353	102
1910	103 1	5.1	108.2	101	107	193	56
1911	131.1	16.7	147.8	91	162	292	85
1912	226.0	115.7	341.7	96	356	641	186
1913	285.1	5.0	290.1	100	290	522	151
1914	114.0	15.8	129.8	95	137	247	72
1915	167.5	13.7	181.2	98	185	333	96
1916	375.8	13.2	389.0	154	253	455	132
1917	862.9	23.7	886.6	243	365	657	190
1918	1,716.7	34.7	1,751.4	449	390	702	203
1919	1,249.9	27.4	1,277.3	418	306	551	160
1920	2,239.1	57.4	2,296.5	356	645	1,161	336
1921	1,368.9	39.4	1,408.3	261	540	972	281
1922	−111.8	133.1	21.3	206	10	18	5
1923	1,361.4	206.9	1,568.3	196	800	1,440	417
1924	783.8	136.2	920.0	196	469	844	244
1925	−167.1	194.6	27.5	178	15	27	8
1926	998.9	148.8	1,147.7	165	696	1,253	363
1927	542.0	245.3	787.3	151	521	938	272
1928	394.8	331.2	726.0	155	468	842	244
1929	605.3	205.9	811.2	155	523	941	272
1930	203.5	171.3	374.8	144	260	468	135
1931	18.5	152.7	171.2	120	143	257	74
1932	75.5	160.7	236.2	129	183	329	95
1933	524.6	193.2	717.8	164	438	788	228
1934	1,505.6	229.2	1,734.8	180	964	1,735	502
1935	1,087.9	229.5	1,317.4	174	757	1,363	395
1936	1,413.0	240.9	1,653.9	180(estimate)	919	1,654	479

used to deflate the series presented in column 3, and the results are shown in column 5, capital investment in industrial and commercial companies and by municipal governments at 1900 prices. Column 6 merely translates column 5 into terms of 1936 prices, and column 7 translates column 6 into 1936 dollars, the exchange rate used being 1 yen equals $.28951.

In table II the data of table I are summarised by decades, all amounts being expressed in 1936 dollars. It will be seen (column 2) that the average investment of this type rose steadily, from 49 million dollars per year in the decade 1900-1909, to 273 million dollars per year in the period 1930-1936.

TABLE II. TYPE I INVESTMENT BY DECADES

Capital Investment in Industrial and Commercial Companies, and Capital Investment by Municipal Governments in Japan, 1900-36, Summarised by Decades

Period	1 Total such investment (million 1936 $)	2 Average per year (million 1936 $)	3 Average per year per head of the 1900 population (1936 $)
1900–1909	490	49	1.12
1910–1919	1,331	133	3.04
1920–1929	2,442	244	5.57
1930–1936	1,908	273	6.23

Private Capital Investment in Agriculture and Transportation, and Capital Investment by the National Government in Economic Undertakings, 1896-1936 (Type II Investment)

In table III are presented data on private investment in agriculture and transportation and data on investment by the national Government in economic undertakings in Japan during the period 1896-1936. Columns 1 and 2 show, respectively, the annual increase in the paid-up capital and reserves of agricultural and transportation companies and the annual increase in the national Government's debt incurred for economic undertakings, while column 3 gives the total of the first two columns. In column 4 is presented the price index of investment goods used in table I, by which the series in column 3 is deflated, the results being shown in column 5, capital investment in agricultural and transportation companies and in economic undertakings by the national Government at

1900 prices. Column 6 merely translates column 5 into terms of 1936 prices and column 7 translates column 6 into 1936 dollars, the exchange rate used being 1 yen equals $.28951.

TABLE III. TYPE II INVESTMENT

Private Investment in Agriculture and Transportation and Investment in Economic Undertakings by the National Government, Japan, 1896-1936

Year	1 Agriculture and transportation	2 National	3 Total Type II	4 Price index of investment goods	5 Total at 1900 prices (million yen)	6 Total at 1936 prices (million yen)	7 Total in 1936 dollars (millions)
1896	29.7	20.7	50 4	87	58	104	30
1897	52.3	5.9	58.2	99	59	106	31
1898	33 4	12.3	45 7	102	45	81	23
1899	1 8	.1	1.9	103	2	4	1
1900	37 6	25 3	62.9	100	63	113	33
1901	13 9	3 8	17 7	99	18	32	9
1902	23.7	6.5	30 2	99	31	56	16
1903	5 8	10.4	16 2	92	18	32	9
1904	51 1	3 2	54 3	87	62	112	32
1905	10 9	107 5	118.4	111	107	193	56
1906	-3 3	230 4	227.1	127	179	322	93
1907	-160 4	130 6	-29 8	122	-24	-43	-12
1908	17 0	76 5	93 5	117	80	144	42
1909	14 7	17 8	32 5	112	29	52	15
1910	28 2	121 2	149 4	101	148	266	77
1911	24.9	130 3	105 4	91	116	209	61
1912	36.9	1.4	38 3	96	40	72	21
1913	26 4	.3	26.7	100	27	49	14
1914	36 8	33.2	70 0	95	74	133	39
1915	9.2	7.3	16.5	98	17	31	9
1916	47.1	9 3	56 4	154	37	67	19
1917	183 4	17 5	200.9	243	83	149	43
1918	287 7	23 2	310 9	449	69	124	36
1919	38 8	27 4	66 2	418	16	29	8
1920	296 2	53.5	349 7	356	98	176	51
1921	2 3	121 2	123.5	261	47	85	25
1922	-180 4	103 9	-76.5	206	-37	-67	-19
1923	242 9	127 1	370.0	196	189	340	98
1924	113 2	189.9	303.1	196	155	279	81
1925	85 5	179 6	265.1	178	149	268	78
1926	85.5	150 2	235 7	165	143	257	74
1927	142.2	134.4	276 6	151	183	329	95
1928	108 3	185.6	293.9	155	190	342	99
1929	138.4	172.3	310 7	155	200	360	104
1930	-30 8	139 7	108 9	144	76	137	40
1931	-3 3	132.5	129 2	120	108	194	56
1932	53.6	114.4	168.0	129	130	234	68
1933	33 6	274.2	307.8	164	188	338	98
1934	44 3	276.3	320.6	180	178	320	93
1935	88.6	265 8	354.4	174	204	367	106
1936	106 4	262.8	369.2	180 (estimate)	205	369	107

In table IV these data are summarised by decades, and the amounts are expressed in 1936 dollars. It will be noted (column 2) that average investment of this type rose from 29 million dollars per year in the decade 1900-09 to 81 million dollars per year in the period 1930-36.

Total of Types I and II

In table V the data presented in tables II and IV are combined. It will be seen (column 4) that the rate of investment rose from 78 million dollars per year in the first decade, to 313 million dollars per year in the third decade and to 354 million per year in the period 1930-1936.

TABLE IV. TYPE II INVESTMENT BY DECADES

Capital Investment in Agricultural and Transportation Companies, and Capital Investment by the National Government in Economic Undertakings, Japan, 1900-36, Summarised by Decades

Period	1 Total such investment (million 1936 $)	2 Average per yr (million 1936 $)	3 Average per yr. per sq km (1936 $)
1900–09	293	29	77
1910–19	327	33	85
1920–29	686	69	179
1930–36	568	81	212

TABLE V

Capital Investment in Japan, 1900-36 (in 1936 dollars)

Period	1 Type I investment (million 1936 $)	2 Type II investment (million 1936 $)	3 Total	4 Average investment per year (million 1936 $)	5 Average annual investment as per cent. of average annual national income
1900–09	490	293	783	78	12.1
1910–19	1,331	327	1,658	166	16.9
1920–29	2,442	686	3,128	313	12.3
1930–36	1,908	568	2,476	354	9.6

This annual investment may seem very low when viewed from the standpoint of countries like the United States or Great Britain. Expressed as percentages of average Japanese annual income during the same period, however, the rate is not low. Investment was 12.1 per cent. of estimated national income in the first decade, rose to 16.9 per cent. in the second, then fell to 12.3 per cent. in the third, and fell again in the 1930's to slightly less than 10 per cent.[1]

Capital Goods from Foreign Countries in the Industrialisation of Japan

Most of the capital goods required in the industrialisation of Japan were produced domestically. We are, however, especially interested in imports of capital goods, in order to see what role these played in the industrialisation process. From the *Financial and Economic Annual of Japan* data can be secured on Japanese imports of iron and steel, other metals, metal manufactures and machines. No doubt certain other imports should be included, but it is not clear from the trade statistics just what these should be. Our figures underestimate, but probably not seriously, Japanese imports of capital goods.

These data for the period 1896-1936 are presented in table VI. In column 1 the total imports of the four classes of capital goods mentioned above are shown. Column 2 translates column 1 into 1900 prices by means of the price index of investment goods used previously. Column 3 translates column 2 into 1936 prices, and column 4 translates the 1936 yen prices into 1936 dollars, the exchange rate used being 1 yen equals $.28951.

[1] The data on Japanese national income used for comparison with the estimated capital investment are those of K. Mori for the period 1900–20, of Hijkata for the period 1921-33, and of the Mitsubishi Economic Research Bureau for the years 1934-36. At the 19th Conference of the International Institute of Statistics, held in Tokyo in 1930, K. Mori presented an estimate of the National Income of Japan for each year of the period 1887-1925 (K. Mori: "The Estimate of the National Wealth and Income of Japan Proper", in *Bulletin de l'Institut International de Statistique*, Tome XXV, Vol. 2, pp. 203-4). Colin Clark has strongly criticised these estimates, saying: "It is quite impossible, however, to reconcile these figures with other sources of information, particularly statistics of agricultural production. It appears that Mori was working on a limited definition of national income not applicable for comparison with other figures." (*The Conditions of Economic Progress*, London, Macmillan, 1940, p. 113.) Mori's estimates for the year 1914 and the period 1919-1925 may be compared with separate estimates for these years prepared by Professor Hijkata "on a basis and definitions similar to those used in Europe and America . . . " (*Analytical and Statistical Survey of Economic Conditions in Japan*, Mitsubishi Economic Research Bureau, Tokyo, April 1937.) While this comparison reveals differences which would be significant for some purposes, the two series correspond fairly well. Hijkata's series have been carried through the years 1934–36 by the Mitsubishi Economic Research Bureau (same publication as cited above), using similar methods and definitions.

TABLE VI

Japanese Imports of Iron and Steel, Other Metals, Metal Manufactures and Machines, 1897-1936

Year	1 Total imports (current prices, million yen)	2 Total at 1900 prices (million yen)	3 Total at 1936 prices (million yen)	4 Total in 1936 $ (million $)
1897	42 2	43	77	22
1898	44.2	43	77	22
1899	29.0	28	50	14
1900	51.7	52	94	27
1901	42 2	43	77	22
1902	36 0	36	65	19
1903	41.0	45	81	23
1904	47 5	55	99	29
1905	85 9	77	139	40
1906	75 2	59	106	31
1907	107.8	88	158	46
1908	104.5	89	160	46
1909	69.5	62	112	32
1910	78.0	77	139	40
1911	114.3	126	227	66
1912	137.9	144	259	75
1913	139.1	139	250	72
1914	96 7	102	184	53
1915	77.5	79	142	41
1916	192 8	125	225	65
1917	329.7	136	245	71
1918	470.4	105	189	55
1919	486.7	116	209	61
1920	533.0	150	270	78
1921	394.3	151	272	79
1922	424 1	206	371	107
1923	369 6	189	340	98
1924	528 0	269	484	140
1925	348 8	196	353	102
1926	388.1	235	423	122
1927	356 1	236	425	123
1928	428.3	276	497	144
1929	456.6	295	531	154
1930	298 2	207	373	108
1931	182.4	152	274	79
1932	226.0	175	315	91
1933	346 7	211	380	110
1934	459 6	255	459	133
1935	553 5	318	572	166
1936	538 6	299	538	156

In table VII the data presented in table VI are summarised by decades. The first column gives the total imports of capital goods in 1936 dollars and prices, while the second column shows average imports of capital goods per year. Column 3 shows average imports of capital goods per year as a percentage of average total investment per year (as shown in table V). As might be expected, imports of capital goods made their greatest percentage contribu-

tion to Japanese industrialisation in the first decade after 1900, accounting for slightly more than two fifths of the total investment in that decade. In the following two decades the share of imports dropped to 36 or 37 per cent., and fell again in the 1930's to 34 per cent. In other words, imports of capital goods have accounted for between one third and two fifths of Japan's total investment in the period 1900-1936. This is a remarkably high share.

TABLE VII

Japanese Imports of Capital Goods, 1900-36, Summarised by Decades (in 1936 prices and dollars)

Period	Total (million $)	Average per year (million $)	Average per year as percentage of average total investment per year
1900–09	315	32	40.2
1910–19	599	60	36.1
1920–29	1,147	115	36.7
1930–36	843	120	34.0

The Application of Japanese Experience to Other Asiatic Areas

Eastern Asia will face many of the same problems in industrial development which Japan faced. Most of the area is highly populated; standards of living are very low; complex and rigid social customs are a more or less serious bar to the creation of modern industrial conditions; the area, with certain notable exceptions, is not particularly rich in resources required by modern industry. For these reasons the application of Japanese experience to these other areas may be suggestive.

The first thing which we need to know in order to apply Japanese experience is the present stage of industrialisation in these areas. To what period in the Japanese development does the situation in eastern Asia correspond? The question cannot, of course, be answered exactly. We have assumed, more or less arbitrarily, that the immediate post-war situation in eastern Asia will resemble, so far as progress in industrialisation is concerned, that in Japan in 1900. The only basis for this assumption is that living standards in Japan in 1900 seem to have been about what they were in the late 1930's in the rest of eastern Asia. This may underestimate the development in certain areas (*e.g.*, India), but as a general basis it is probably as satisfactory as any other year which might be

chosen. If it should underestimate the level of industrialisation already attained by eastern Asia, the effect on our calculations will be to understate the future investment which would correspond to previous Japanese experiences.

Table VIII, showing possible capital absorption by various Asiatic areas in the decades after the war, on the assumption that these areas experience capital investment at the same rate, in proportion to population and area, as Japan did after 1900, is calculated as follows. The amount of "population-related" (Type I) investment previously shown in table II is multiplied for each country, decade by decade, by the ratio between that country's population today and Japan's population in 1900. Similarly, the amount of "area-related" investment (Type II) previously shown in table IV is multiplied for each country, decade by decade, by the ratio between that country's total area and the total area of Japan proper. Popula-

TABLE VIII

Capital Absorption by Various Asiatic Areas by Decades of the Post-War Period, on the Assumptions Made in the Text

Country	Population[1] (million)	Area[1] (thousand sq. km.)	Capital investment (million 1936 $)			
			First decade	Second decade	Third decade	Fourth decade
China	450.0		5,040	13,680	25,065	28,035
		11,103	8,549	9,437	19,874	23,538
			13,589	23,117	44,939	51,573
India	365.9		4,098	11,123	20,381	22,796
		4,079	3,141	3,467	7,301	8,647
			7,239	14,590	27,682	31,443
N.E.I.	68.4		766	2,079	3,810	4,261
		1,904	1,466	1,618	3,408	4,036
			2,232	3,697	7,218	8,297
Other areas[2]	116.5		1,305	3,542	6,489	7,258
		2,865	2,206	2,435	5,128	6,074
			3,511	5,977	11,617	13,332
	Total		26,571	47,381	91,456	104,645
Average investment per year			2,657	4,738	9,146	10,465

[1] *Statistical Year-book of the League of Nations.*

[2] Burma and British colonies—population, 29 6 million and area, 1,012 thousand sq kms.; Thailand—population, 14.9 million and area, 518 thousand sq. kms., Phillippines—population, 16.3 million and area 296 thousand sq. kms.; French colonies—population, 24.1 million and area, 742 thousand sq. kms.; Japanese colonies—population, 3.16 million and area, 297 thousand sq kms

tion-related and area-related investment are shown separately in table VIII in the first two horizontal lines of figures corresponding to each country, and then are added in the third line to give an estimate, based on both population and area, of total investment. Thus, the table shows that if China develops after the war as rapidly as Japan developed after 1900 it would experience total capital investment to the amount of 13,589 million dollars in the first decade, 23,117 million in the second decade, 44,939 million in the third decade, and 51,573 million in the fourth decade. In other words, the rate of investment would rise from 1.3 thousand million dollars per year in the first decade to 5.1 thousand million in the fourth decade. Adding the corresponding figures for the other countries shown, the total comes to something over 2,500 million dollars as the annual investment in these Asiatic areas in the first decade after the war. The figure rises to 4.7 thousand million dollars per year in the second decade, to 9.1 thousand million dollars per year in the third decade, and to 10.5 thousand million dollars per year in the fourth decade.

Perhaps the most striking thing about these estimates is their lowness, especially in the first and second decades. Even if all the capital were to come from outside, as, of course, will not be the case, the rest of the world would be able, according to these figures, to invest only about two or three thousand million dollars per year (1936 prices) in eastern Asia in the first post-war decade. While this is not a small sum, it is not by any means as large as many people have predicted. Colin Clark, for example, has estimated that the stock of capital in India, China and the rest of Asia and Oceania, not including the U.S.S.R., will increase from 147 thousand million I.U. (that is, dollars of 1925-34 purchasing power) to 400 thousand million I.U. between 1938 and 1960, or an increase of 253 thousand million I.U. in 22 years. This would mean an annual average investment of 11.5 thousand million I.U. Other writers have suggested that the possibilities for capital investment in eastern Asia are boundless.

The process of industrialisation is a time-consuming process, involving much more than the supply of capital goods. It seems unlikely that eastern Asia will be able to industrialise much faster than Japan did. Even if it should industrialise twice as rapidly as Japan, however, the amount of capital which it would absorb in the first post-war decade would be only about five thousand million dollars a year, at 1936 prices. Much of this would be domestically produced. If we assume for the moment that foreign countries supply capital goods to these areas in the same proportion to total investment as in Japan, then the participation of other

countries in the industrialisation of eastern Asia would amount to little more than one thousand million dollars per year in the first post-war decade (or to a little more than two thousand million dollars per year if we assume that eastern Asia industrialises twice as rapidly as Japan). Divided among the industrial nations of the world, these sums are not huge.