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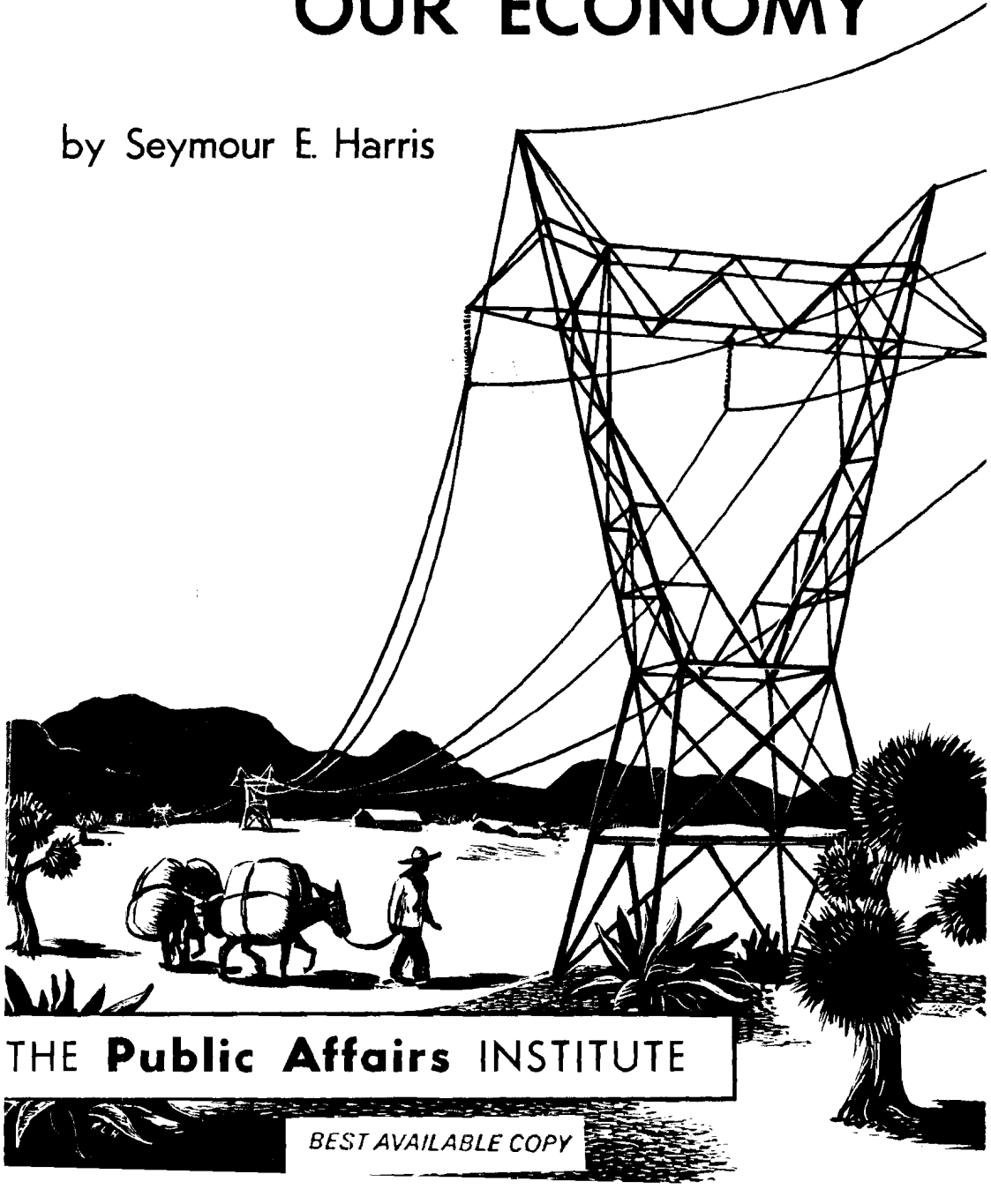
FOREIGN AID AND OUR ECONOMY

by Seymour E. Harris



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Foreign Aid and Our Economy

By Seymour E. Harris

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Bold New Program Series

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Foreign Aid and Our Economy

This is the seventh of a series of eight studies on programs, policies and methods for aiding the underdeveloped two-thirds of the world to achieve both a much higher standard of living and also a larger partnership in the world's cooperative efforts for peace, freedom and justice.

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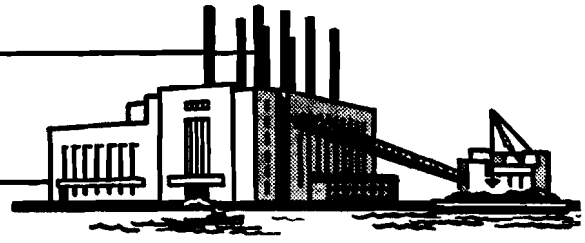
PREFATORY NOTE: Some of the issues raised in this study are considered in other volumes in this Bold New Program Series, and I have consequently dealt only briefly with them here. A summary at the beginning of this pamphlet, together with the introduction and concluding remarks, offer the reader who must economize on time an opportunity to get the argument quickly.

I am greatly indebted to Dr. Mordecai Ezekiel, Dr. L. D. Schweng, and Dr. W. G. Friedrich for suggestions and help with the statistical parts of this study. Dr. H. Singer of the United Nations, Dr. Edward Bernstein of the International Monetary Fund, and Dr. Walter Salant of the Council of Economic Advisers have kindly put material at my disposal.

Seymour E. Harris

Summary



1. *Introduction* The need for foreign aid is great, for several reasons, and the over-all effects of a large Point 4 program, and investment, should be very good.

2. *Shortages* Shortages of raw materials are a serious problem confronting this country. A concatenation of forces—war, full employment and a rising population—has strained our resources as never before. Though modern chemistry helps greatly, this country will fail to achieve full employment and rising of standards of living and even maintain her present position unless additional sources of raw materials and even some foods become available. The major bottlenecks in the next generation are likely to be petroleum products, high-grade iron ore, non-ferrous metals, and numerous strategic materials. Development programs can yield large dividends in increased supplies of these materials, and inducing reduced costs in their procurement.

3. *Foreign Aid, Demand and Unemployment* An excess of exports over imports stimulates the economy in the same manner as investment. Somehow or other the annual output of goods and services of our productive economy must find buyers or depression follows. In the last 35 years, the excess of exports over imports of more than $100 billion has contributed towards supporting demand though in inflationary periods this stimulus is not required. In the last 4 years the country's excess of exports of goods has averaged $8 billion, and in a recent year ECA financed 80 per cent of this country's agricultural exports. It is our considered view that our economy will continue to require the lift of an excess of exports for many years. Investment is not likely to account for more than 12 per cent of our gross product in a high employment economy, and unless government is to increase its contribution towards spending at home, the disappearance of foreign aid will bring deficiency of demand. The only alternative, and an unlikely outcome, would be a rise of consumption to close to 80 per cent of gross product within 10 years. (I assume normal growth of the economy.)

Indeed, there is always the possibility of additional domestic spending by government. But we suggest political opposition to domestic spend-

ing — recall the 1930's when the inflow of gold (i.e., the equivalent of an export of capital) substantially slowed down the decline. *We also insist that in a $250-300 billion economy, $5 billion for foreign aid in a world badly out of balance and with goods seriously maldistributed, will yield larger returns than $5 billion additional spent at home.*

4. Keep Up Exports or Abandon Foreign Aid? Many say that dollar shortage is a myth. It may be in pure economics; but it is real to the outside world. There are many ways of dealing with it. One is exclusion of United States exports, and therefore discrimination against our exports. To many it seems unjust that the countries aided by the American taxpayer should discriminate against our goods. Yet this is happening and we are powerless to protest. The resulting fall of United States exports is not only injurious to our exporters, but also to the importing nations which pay in a reduced standard of living resulting from doing without goods or (and) buying in high-cost areas.

Countries short of dollars not only injure our export trade by keeping our goods out but they also seek to oust us from third markets. Should foreign aid be terminated or drastically cut, then American export trade would suffer a loss of $11 billion vis-a-vis 1947 and $6 billion vis-a-vis 1949. The exporters will want to know why they should take the brunt of the adjustment. Would it not be more equitable to continue foreign aid and spread the burden widely over taxpayers and lenders? (Of course the thesis of this study is that there is no net burden involved in a continuance of foreign aid.)

A second way out is for the United States to increase its imports. More imports could finance more exports. But unfortunately, the prospects are not too bright. Historical experience does not offer grounds for optimism. Piercing the American market, vulnerable to depressions, and to group pressing for higher tariffs, and involving fantastic selling costs is a risky adventure, and most sellers know it. The response of United States imports to rising income is, or has been, most disappointing and that despite liberal trade policies.

5. In Relation to Western Europe's Deficits A substantial foreign investment program should also help solve Western Europe's dollar problem. In the pre-war period, Western Europe obtained dollars from the underdeveloped areas in payment on past investments, and from an excess of exports to these areas. The underdeveloped areas in turn obtained dollars by selling more to the dollar countries than they purchased from them. But Western Europe's invisible earnings (interest, shipping, etc.), which were $2 billion annually just before the war, evaporated and in

fact Western Europe incurred a deficit of $750 million by 1947. By 1952, however, they plan for invisible earnings of $1.2 billion.

The important point is that the income of the underdeveloped areas will rise in response to a development program; and as income rises, imports expand. With the dollars obtained from the development program—directly, and as a result of the resultant rise of income and expansion of exports to dollar countries—the undeveloped countries will have an increased supply of dollars at their disposal which Western Europe can attract by expanding their exports to these areas.

In contrast to the pre-war expansion, Europe will have to earn a larger proportion of these dollars from the export of current services and goods than in the pre-war period, for they have lost heavily in foreign assets. Larger earnings of dollar assets by the underdeveloped areas can thus serve as a substitute for the dwindling aid under ERP. That the countries of Western Europe realize the importance of dollar earnings of these areas for their economies, is suggested by the large investments currently being made by the United Kingdom and France in their dependencies. *Indeed, a gradual transfer of aid from Western Europe to the underdeveloped areas will contribute towards a solution of the dollar problem of both Europe and the underdeveloped areas.*

6. How Much Foreign Investment? A simple guide for the American economy is the same proportion of income as was absorbed by foreign loans and grants in the years 1914-49. In the years immediately ahead, the appropriate sum would then be $7 billion yearly. Actually, this is a high figure to cover the total amount of foreign aid required by the underdeveloped areas in order to provide the capital for general development, and in particular for a development involving a transfer of 20 or 25 per cent of the working population out of agriculture into other occupations in the next 50 years or so. In the early years the United States would not have to provide more than $5 billion annually; and it would take a gestation period of several years before these areas were prepared to absorb $7 billion annually. (Absorptive capacity is an important determinant.) At any rate, $5 billion of a $250-300 billion income is not likely to burden the American economy nearly so much as $2-3 billion in the last generation with incomes at much lower levels. (Since it will take some years before the underdeveloped countries can absorb $5 billion annually of United States funds and thus help Western Europe indirectly, a Little Marshall Plan should prevail until, say, 1955.) This is aside from the offsets of increased incomes in this country, savings on military budgets, etc., associated with the program.

How much we should invest depends also on the cooperation of the underdeveloped areas. They will, for example, have to provide part of the resources out of their domestic savings. Should they depend exclusively on foreign aid, not only would the required sums be too large but the process would be highly inflationary as dollars are exchanged for domestic currencies. Any program which involves unusually heavy investments tends to raise prices, unless the public is prepared to make some sacrifices in consumption, for against the additional income earned in capital goods industries and to be spent largely on consumption, there is not a corresponding output of consumption goods. Indeed, importation will in part make up the deficiency of consumption goods; but this is not likely to be an adequate offset to the loss of consumption goods following a mobilization of factors of production for investment.

The questin of how much investment is also related to the financing terms. The lower the rate of interest and the less exacted for amortization, the more can be made available. As incomes rise in the lending and borrowing countries, the amounts advanced can increase, with the result that the xcess of exports from creditor countries may continue for 50 years or longer. Even by the year 2000, there need not be a serious import problem for this country.

7. Development and Income Past relationships point to an inverse relationship of the proportion employed in agriculture and income per capita. In a classic study, Dr. Louis Bean showed that a reduction of the proportion employed in agriculture in underdeveloped areas from 80 to 60 per cent would raise incomes from 250 to 400 billion dollars, or by 60 per cent. In our study, basing ourselves upon the past relation of countries with *relatively* poor resources in relation to population and with recent gains in industrialization and culture, we find that a 50-year program, which would reduce the agricultural proportion of the population in underdeveloped areas by 20 per cent, (e.g., 70 to 50) would have the following effects: (This is of course inferred from past relationships for newly developed areas.)

Percentage Rise from 1950 to Designated Year, Several Variables for Present Underdeveloped Areas

	1960	1975	2000
Population	11	27	51
Estimated Numbers Employed in Non-agricultural Employment	26	69	148
Aggregate National Income	39	125	318

The reader will observe a steady increase in population; a much larger proportionate gain in non-agricultural employment; and *a fortiori,* in aggregate income. *By 2000, total income will more than have quadrupled and per capita income have risen from 50 dollars in 1950 to 139 dollars in the year 2000.* (The last in dollars of stable purchasing power.) This gradual gain of income over population rise rests upon an advance of industrialization rapid enough to raise standards of living when accompanied by the required decline in fertility.

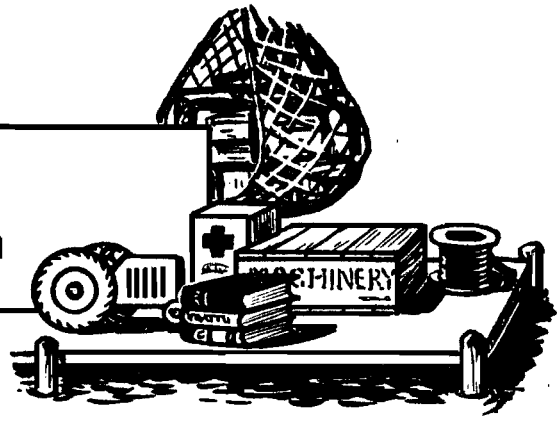
8. Development and Trade As incomes of underdeveloped areas rise, their trade expands. This is to be expected on theoretical grounds, and is confirmed by experience. An examination of income and trade statistics for a period of 50-75 years confirms the high correlation of trade and income. In fact, up until 1929 industrialization seemed to have been accompanied by a striking expansion of trade even in *manufactured goods.* Depression and accompanying trade restrictions impaired that relationship after 1929.

The British experience of the inter-war period, however, suggests possible difficulties for the older industrialized areas. Yet the slow adaptation of the British to the changed demand, unwise monetary policies, rapid industrialization in Asia which severely affected British markets, the worldwide depression, and the unfortunate concentration of the British on exports of commodities less and less favored in trade — all of these reduce the significance of the adverse effects of industrialization on the British.

By comparing trade and per capita income in the pre-war period for 22 countries and applying these results to the expected income per capita of underdeveloped areas following a bold development program, we can roughly estimate imports and exports of the underdeveloped areas and notably their effects upon imports from the United States, as well as imports by commodity groups. By the year 2000, the trade of these countries should rise by 3-4 times, and purchases from the United States by almost 3 times. Should our national income continue to rise, as suggested by past trends in population, rise in the labor force and productivity, then we may expect a national income of about $1,000 billion by the year 2000. But we must count *inter alia* on good management, the avoidance of atomic war, and advances in chemistry, technology, and trade which will assure us adequate resources. At the expected high-level incomes, and again assuming favorable trade relations and policies (inclusive of bold development programs), this country might well import 12, 17, and 30 billion dollars of goods in the years 1960, 1975, and 2000, respectively (1949 dollars).

Part I

Introduction: The Problem



In this study, we examine the repercussions of Point 4 Program (inclusive of a complementary foreign investment program) upon the American economy. What is of immediate interest is what we receive (*via* imports) and what we give (*via* exports). Incidentally, we have to take account also of the repercussions of foreign transactions upon demand, and hence upon output, and hence indirectly upon imports and exports.

These are the important economic variables to which we shall direct attention. But there are non-economic effects which we cannot entirely neglect; and especially since these in turn influence output, consumption, exports and imports.

For example, large regional differences in income do not strengthen the forces making for peace. This country receives about 40 per cent of the world's income, uses 50 per cent of the world's minerals and 70 per cent of the oil, and yet has but 7 per cent of the population; that is to say, the average American has 9 times as much income as the average non-American.[1] The least we can do is to treat the resentment of the "have-nots" by aiding them to raise their standard of living and to reduce the differences between their standard of living and ours. In doing this, we shall remove or weaken one cause of war, and thus we may get back many times our original investment. The savings on armaments in the Cold War alone may largely offset the cost of financing underdeveloped areas.

Again, the education and health of the people in the underdeveloped areas is a matter of great concern to us; and education and health are focal points of outlays for economic development.

A rise of educational achievement is not only a condition for rising standards of living, but may well raise the resistance to totalitarian inroads. Improved health will not only raise productivity and income abroad, but will also reduce dangers of infection in a world in which modern means of transportation bring people so close together.

For example, Dr. Simmons gives the case history of Mr. Eugene LeBar, who in 1947 brought smallpox from Mexico City to New York City, thus infecting 3 others, and then indirectly 9 others. Others possibly infected had soon spread to 29 states. The result was a panic in New York City, emergency vaccinations of 7 millions made possible by a mobilization of the nation's vaccine.[2] This episode suggests our interest in the health of the inhabitants of the underdeveloped countries.

In the remainder of this introduction, I emphasize some aspects of the problem which require special and separate consideration: magnitude of the program; absorptive capacity of the underdeveloped countries; type of financing; source of aid; the accumulation of debts; rise of income and the population problem.

Proportions of the Program

This study supports the case for Point 4; but it conceives Point 4 as going beyond the relatively small sums which are to be appropriated under this plan. Indeed, technical advice may return the original investment in many instances within a year or two—e. g., the use of D.D.T., as a means of eradicating malaria in some areas. But although technical advice may improve education, health and technology, the underdeveloped countries also need machinery, equipment, and consumers' goods to support the population while it diverts more resources to capital building. Excessive emphasis on Point 4, narrowly interpreted, may well encourage underdeveloped areas to embark on ambitious investment programs which may turn the balance of payments even more against them. The genuine importance of Point 4 for our problem is that technical aid will make it possible to obtain information, prepare plans and improve administration, the necessary conditions of aid, and thus generally break the bottleneck of undigested plans.

We discuss a program for underdeveloped areas which may cost a minimum of $5 billion and a maximum of $7 billion annually in the first 10 years. The sums in the early years may well be smaller, because the gestation period for a well documented and well planned program may be several years. Even the average for the first 10 years might be below that suggested above. In the early years, the United States will have to provide at least two thirds of the sums required, though ultimately other countries should be able to finance from 40 to 50 per cent.

Cooperation of Underdeveloped Areas

An adequate program of foreign aid is not merely a matter of

foreign aid. The International Bank for Reconstruction and Development, the State Department, and the United Nations have all emphasized the contributions that have to come from the direct beneficiaries: internal savings, sound fiscal and monetary policies, fair treatment of foreign lenders, mobility of labor, training of labor and technicians, etc.[3]

Absorptive Capacity

In some quarters, there is a tendency to exaggerate the difficulties. Thus the International Bank for Reconstruction and Development (IBRD) contends that the main bottleneck is the deficiency of acceptable plans; and in fact claims that it has the resources to finance all acceptable projects to be financed on a commercial basis.[4] The assumption here and in other appraisals is that the capacity of the underdeveloped areas to absorb foreign capital is indeed limited. Yet these skeptics should be reminded that Canada absorbed $2.5 billion in the years 1900-13, or about $180 million per year. In current prices, the amount would be about $450 million. An equal *per capita* sum distributed among the 80 per cent of the world's population in underdeveloped areas would require an outlay of about $75 billion *per year,* or at least 10 times the highest estimates now being considered. Asia alone would then require at least $60 billion annually to match Canada's inflow over the first 13 years.

I am not contending that the underdeveloped areas require as much per year or could absorb as much per year as Canada did in the years 1900-13, but it does not seem unreasonable that their per capita needs and absorptive power are at least one tenth of Canada's in these years. In fact, the Japanese rate of absorption over a generation corresponds closely with the proposed rate of foreign aid for underdeveloped areas in the years to come; and Japan's absorptive capacity probably greatly exceeded the capacity suggested by the funds that were put at her disposal.

Packaging vs. Project Financing

This notion that the IBRD can handle all legitimate projects may mislead the unwary. The case for Point 4 or for an extended foreign assistance program should not run in terms of projects. What is required is an over-all program which will deal with education, nutrition, health, transportation, water, power, administration, improved technology in agriculture and industry, resources for the improvement or introduction of industries. Outlays for health and education and many services will not yield dollar returns directly; and many of the outlays which will

not produce direct gains are required in the early years. This simply points to the need of *"packaging"* financing, not *project* financing.

The Financing Problem and the Source of Aid

From this we also draw the conclusion that too much emphasis can be put upon the interest charge, amortization rate and financing charges generally. The large sums involved point to the importance of public financing; and the general nature of the resulting gains also points in the same direction. The private investor seeking an outlet for his surplus funds will compare returns at home and abroad and require a rate high enough to compensate for the special risks involved in foreign loans. The United States Government can take a broader view: Against the interest cost of (say) 2.5 per cent, the Government can weigh the gains of increased export trade, the availability of larger supplies of raw materials and foods and at lower prices, the budgetary and other (e. g., lives saved) gains resulting from reduced political and military tensions. It is easy to envisage conditions under which non-interest bearing loans and even grants would pay. Since the gains would also accrue to foreign industrial countries (e. g., improved markets in underdeveloped countries), there is a case for international collaboration among lending nations.

This is not a matter of competition between public and private lenders. Indeed, much nonsense is being written on the issue of public guarantees of private loans. The danger here is that the government will take the risks and the private lender receive a return not adequately reduced to compensate government for assumption of risks. (This is considered further in my concluding remarks.) In the post-war years, more than 90 per cent of funds made available have in fact been public funds.[5]

But to return to public-private competition. *Where the gains accrue largely to the nation generally, then the disburser of funds has to be the government.* No one suggests that private enterprise take over the ERP or even the Anglo-American Financial Agreement of 1946. Underdeveloped areas may not be able to pay the market rate, say, 5 per cent. But it may pay the government to advance funds at 3 per cent or zero per cent, or even make an outright grant. The terms should depend upon capacity to pay; upon the probable effects on United States exports, income and tax capacity; upon possible savings on the military budget; and upon such non-economic considerations, as the contributions to a peaceful world.

Financing Charges and the Accumulation of Debts

Financing charges, inclusive of interest and amortization, are of great importance for another reason. The accumulation of these charges soon results in the debtor country incurring obligations in excess of the new annual loans. Economists increasingly indulge in exercises in arithmetic to show that vast new loans from developed to underdeveloped countries will be required to offset the cumulative growth of financing charges as the debt rises (and corresponding exports from creditor nations), if a substantial excess of exports from creditor countries is to continue.

Thus at a rate of 4 per cent (no amortization) $13.3 billion of *new* loans would be needed within 25 years to sustain an excess of exports of $5 billion; and in 50 years, $35.5 billion. At a rate of 2 per cent the respective figures would be $8.2 and $13.5 billion. For a loan amortized in 20 years and at a rate of 4 per cent, the new loans required to finance an excess of exports of $5 billion within 25 years would be $29.5 billion. That is to say, the creditor country would then be lending $24.5 billion to cover interest and amortization on previous loans and $5 billion to cover the current excess of exports.

At the end of 25 years under a 2 per cent loan without amortization, new annual financing of $1.64 billion could sustain an export surplus of *$1 billion.* But at a likely private rate of 6 per cent and amortization in twenty years, new annual financing of $8.09 billion would be required to sustain an export surplus of $1 billion. This suggests the need of keeping rates down and discouraging amortization on a national basis. *These, of course, also strengthen the case for recourse to public loans, which relate returns and amortization practice to the interests of the economy rather than those of the private lender.* At 2 per cent rates without amortization (and in some instances even more generous terms), the amount of new loans required would not be excessive when related to the growth of income and trade of lending and borrowing nations. The financing process might continue for 50 years or longer.[6]

New Approach to Financing

Financing will have to be along new lines for the most part for reasons already suggested and for others yet to be outlined. First, private lenders generally are unwilling or unable to take risks unless underwritten by government. Under these conditions, the government might frequently just as well undertake the whole transaction. Second, private financing in recent years has largely been in the form of direct loans.

These have been of some importance but they are not large when compared with needs or with public sums likely to be available. A substantial part of direct investments comes from profits earned abroad. These funds are available for financing existing enterprises, not for over-all development programs; and they do not yield free exchange. Rather, they are an offset to demands for dollars that otherwise might have been expressed. Actually, with earnings on foreign investments approaching a billion dollars yearly, the genuine problem is to find offsets in private investment to neutralize the effects of a possible net inflow of capital or what corresponds to a net inflow, potentially equal to $1 billion. Private financing is indeed not promising on the basis of recent experience.[7] Third, we should exclude the tied loans, that is a loan made specifically to buy commodities and services, frequently designated in the lending country. The loans of the Export-Import Bank and even the IBRD are largely loans of this type. What is required is free exchange which allows the borrower to buy in the cheapest market. In this manner, Western Europe as well as the underdeveloped areas may solve their exchange problems.[8]

Gains of Income and the Population Problem

One final problem remains for preliminary consideration. The large gains to be made by development are to be inferred in part from past experience. In particular, incomes seem to rise as the proportion of non-agricultural labor force rises. One should not assume that past experience is a precise guide of gains to be expected in the future. For this reason, in our study, we have relied on the experience of the countries not richly endowed by nature.

We assume that the newly industrialized countries are going to raise their per capita incomes, but much less than the richer countries experiencing industrialization in recent years. This seems to be a much more reasonable position than that which affirms that the underdeveloped countries do not have the education, health, resources, institutions generally to carry through a successful development program.[9] British economists were equally skeptical of Germany's industrialization; Western authorities, of both the Japanese and Russian programs. Yet the industrialization of Japan and the U.S.S.R. is one of the miracles of the last 50 years. (Indeed, we do not assume that the underdeveloped areas will have recourse to Russian methods.)

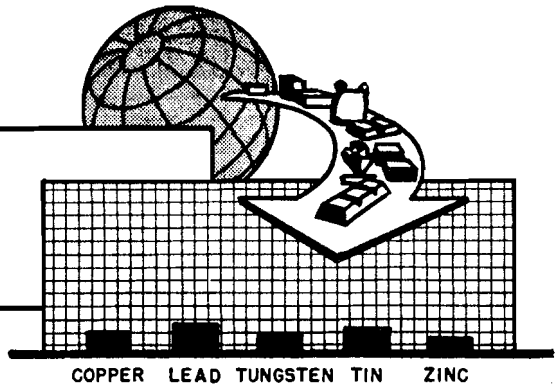
Of course, much depends upon the solution of population problems. Since another study in this series (Number 5, *People, Food and Machines*) deals with this problem, I shall be brief here. Europe

responded to industrialization by reducing both death and birth rates, and greatly raised standards of living. Japan's experience so far has also been promising. There has been a substantial rise of standards of living and a reduction of birth rates. The first effect of development with its improved education, sanitation, health and transportation is a reduction of death rates. With a birth rate of 40 per 1,000 and a death rate of 30, the net increase is 1 per cent per year, with population doubling every 70 years; but with a death rate of 20 per 1,000, the net increase is 2 per cent, with population doubling in 35 years. Hence the early gains may largely be absorbed in a rise of population. It is, therefore, imperative that the development program be carried out at a pace which will assure increased resources not only to cover the rise of population but also to finance the working population being shunted into non-agricultural employment and to raise standards of living sufficiently so that effects on birth rates will be felt early. In other words, a vigorous program is much more likely to succeed than a half-hearted one. It is like pushing an automobile up a slight incline from a level road. Much energy is required at the outset to keep the car from sliding back.[10]

In this introduction, we have stressed the need for foreign aid to ease political tensions and thus reduce military outlays; the requirement of a substantial program; the relevance and quantitative aspects of absorptive capacity; the advantage of packaging over project financing; the tie-up of general gains and the case for public contributions; the small resources available from private funds; and the cheerful prospects for development suggested by past experience. Now we turn to the body of our study, starting with the problem of shortages.

Part II

Shortages and Development



The United States is short of many raw materials and foods. By providing technical aid and resources for development abroad, this country can stimulate the output of scarce materials and foods. With technical advances and greater use of machinery, foreign economies will achieve increased productivity in the fields and mines as well as in the factory. They will, therefore, have more of these scarce items to sell to the United States.

Development and Raw Material

Development does not bring a reduction in agricultural or mineral output, as is frequently contended. In a survey of twenty-five European countries for the thirties, the Economic Commission for Europe found not only that there is a high negative correlation between the percentage of population dependent on agriculture and the amount of real income per head, real income per head being lower the larger the percentage occupied in agriculture, but also that "the smaller the percentage of the population dependent on agriculture and fishing, the larger both production per head and production per hectare in agriculture." Thus the ten countries with the largest percentage of the population dependent on agriculture (running from 82 to 54 per cent) had an average of agricultural production per person of 47 (Europe = 100), and the ten countries with the lowest percentage of population dependent on agriculture (36 to 7) had an average of 204. Their respective output per hectare of agricultural land was 62 and 221 (again, Europe = 100).[11]

Shortages of Raw Materials in the United States

Studies by United States Government agencies have revealed serious shortages of all kinds. For 15 of 41 minerals, United States reserves were adequate to meet more than 50 years' requirements of the 1935-44 rate of consumption. (In most instances, post-war consumption is higher

than the 1935-44 rate). Twenty-three of these commodities, including bauxite, zinc, copper, petroleum, lead, tin, most of the ferro-alloy minerals, and several non-metallic minerals are not available in supplies adequate to cover 25 years of consumption at current rates. According to the Department of the Interior, the country should be self-sufficient for a long time for 13 minerals, completely or virtually dependent on foreign sources for ten (e.g., tin, chromite, quartz crystals) and partially dependent on foreign sources for 16 (e.g., copper, high grade iron ore, lead, zinc, mercury, tungsten, bauxite).

According to the National Resources Planning Board (*Industrial Location and National Resources*), just before the war this country was producing more than it was consuming of 12 important minerals inclusive of copper, lead, petroleum, and consuming more than it was producing of 26 minerals inclusive of iron ore (with production 98.9 per cent of consumption), bauxite (58.6 per cent), manganese ore (4.2 per cent), and tin (0.2 per cent). According to an estimate of the Standard Oil Company, ratio of annual production of petroleum to reserves in 1946 was 7.5 per cent; and for the Middle East, only 1.0 per cent.

Rapid growth of population and output account for the large demands for raw materials. Thus, mineral production rose from $426 million in 1880 to $8.4 billion in 1944, and about $9 billion in 1946. Former Secretary of the Interior Julius A. Krug well summarized the issues before a Congressional Committee early in 1949:

> "The raw materials and energy required for this prodigious output of goods and services are staggering in amounts and are straining our present capabilities in many important respects. During the last year, the nation consumed over 2,000,000,000 barrels of oil, over 600,000,000 tons of coal, a record production of 96,000,000 tons of iron and steel, and about 300,000,000 kilowatt hours of electric power.
>
> "These enormous demands have brought us face to face with shortages of many critical materials which are serious and will affect our output, our employment levels, and our standard of living if they are not handled with utmost intelligence. . . .
>
> "With respect to the conservation and development of the resources here at home, we should recognize that they are related to conservation and development elsewhere in the world and make every effort to stimulate world trade and production. Our own Western development programs have proved, as in a laboratory, the fact that as stable 'economies' are achieved by a balance of industry and agriculture, the levels of living rise, and the undeveloped areas become not only a source of necessary raw materials but also a market for the things that other areas in our country produce."[12]

Indeed chemistry will frequently provide substitutes—e. g., chem-

preg, a chemical wood, which gives a cheap wood the qualities of heavy, dense teakwood, comparable in strength to steel but somewhat higher in cost. Conservation measures also will help. In a generation, the amount of coal required to produce a kilowatt hour of electricity has been reduced by two-thirds. But much remains to be done. It has been estimated that one-half the oil is left in the formations during the original extractions; and a large part of this is never recovered.

Despite expected economies of extraction and chemical miracles, we shall have to depend increasingly upon foreign sources. We cannot wait for chemistry to solve all our problems. The precarious state of our reserves and stocks is reflected in the recent discussions of our stockpiling program. In the course of the debate on the ERP, the Foreign Relations Committee of the House in 1948 urged recovery of part of our costs through acquisition of excess stocks from the dominions and colonies of the 16 ERP countries. From these discussions, it was easy to envisage the serious shortages confronting a high employment economy.

Economic development should yield this country rich additional sources of raw materials. Consider the depletion of petroleum reserves. In 1939, petroleum accounted for but 0.2 per cent of the estimated heat value of all fuels and yet in 1939 domestic crude oil accounted for 29.9 per cent of the sources of energy in the United States. Estimates have put our reserves as low as 15 years of our average consumption, 1935-44.

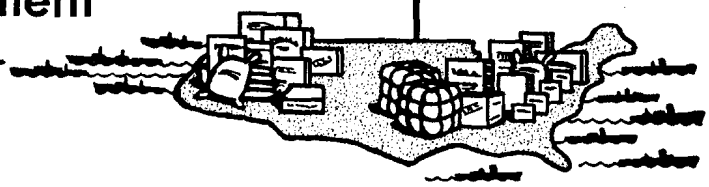
Or consider iron: reserves of rich ore available for about one generation. Substantial investments in Brazil, Venzuela and Labrador may yield the required supplies of iron upon which our economic and military potential depends, and more cheaply than the low-grade ore in the Mid-West to which we shall have to turn in the next generation. Adequate outlays for development abroad should contribute towards large new discoveries of scarce minerals, improved conservation methods, and more economical methods of extraction. This is most important for a country whose per capita consumption exceeds Europe's and the world's by so much.[18]

U. S. Per Capita Consumption

	No. of Times of	
	(1) Europe's	(2) Rest of World
Petroleum	17	34
Steel	5	28
Copper	4	20
Lead	3	33
Coal	3	24
Zinc	4	37

Part III

Foreign Aid, Demand and Unemployment



Saturation in the Fifties?

In the thirties, we suffered from a long and severe spell of unemployment which cost the country around $350 billion. In the forties, World War II, requiring an outlay of $350 billion, solved the unemployment problem. Even in the years 1946-49 there was no serious unemployment problem: backlogs of demand resulting from war shortages, continued large expenditures for defense, foreign aid, and other outlays associated with World War II provided adequate purchases to keep employment at a high level. Let us not forget that had personal consumption and gross private investment remained in 1942-45 at the percentage of gross national product of 1935-39, there would have been $207 billion more spent on consumption and private investment in these years. This is a large part of the explanation of the large outlays in 1946-49; but this contribution to demand is not going to be large from now on.

Economists in the thirties, and notably Keynes and Hansen, elaborated a maturity, stagnation or saturation theory to explain the insufficiency of demand of the thirties. They stressed the need of reduced interest rates, more private and public investment, public measures to stimulate an increase of consumption and even export surpluses as means of dealing with the deficiencies of buying. Ten years of prosperity have so colored current thinking that the Council of Economic Advisors, in its December, 1949 Fourth Annual Report, affirms that the saturation theory is outmoded, and it seems almost to have fotgotten the problems of the thirties, now obscured by war and post-war spending.

Foreign Aid and Lending in Relation to Saturation

The relevance of the maturity theory for our problem lies in the contribution that foreign lending makes to the support of demand. It is significant that from 1913 to 1948 foreigners imported $270 billion

of goods and services from this country and exported but $169 billion. They covered the excess of imports of $101 billion by obtaining grants of dollars from our government ($49 billion), U. S. Government loans ($19 billion), liquidation of gold and dollar assets ($15.5 billion), private remittances to foreigners by Americans ($10.5 billion), and private loans ($10 billion).[14] These figures account for most of the difference.

This is, of course, the dollar problem: the dollar gap, dollar shortage, dollar famine, or call it what you will. It is significant that over 35 years we have had to give away about $3 billion of goods and services per year (average), or about 4 per cent of our income. In wartime the excess of exports contributed to inflation; but in 1923-29 an excess of $7.6 billion occurred in a period of relative price stability, and in the thirties the excess of $7.4 billion contributed substantially to pulling the country out of the quagmire of depression. And who would say that, in the absence of $6 billion expended by the government for foreign aid and relief in 1949 and a corresponding excess of exports, the economy would have maintained an even keel, with gross national product in 1949 roughly equal to that of 1948 in 1948 prices? [15]

As one surveys the situation in the winter, 1950, it does not seem likely that full employment will be maintained in the absence of a substantial excess of exports. An excess of exports stimulates the economy in the same manner as a rise of investment. Demand rises; and insofar as there is unemployment, the increase of demand puts unemployed labor and resources to work. The ultimate rise of income is a multiple of the original stimulus—i.e., the excess of exports.

An excess of exports is required, first, because substantial progress has been made in catching up with the deficiencies in housing, automobiles, and other durable goods. Second, because business plant and equipment are more nearly adequate to meet current demand than they were a few years ago. It has been estimated that outlays for 10 years on business plant and equipment at the rate of the years 1946-48 would make possible an entirely new capital plant. Capital goods outlays in the last three quarters of 1949 are estimated at 6, 10, and 18 per cent below the corresponding quarters of 1948, and for the first quarter of 1950, a corresponding decline of 14 per cent. And gross private investment in the first three quarters of 1949 was $35.3 billion (annual rate), or 22 per cent less than the $45.0 billion of 1948. The Commerce Department, commenting on outlays for plant and equipment, concludes as follows:

"In addition to the gradual completion of war-deferred expansion

programs, these declines undoubtedly reflect both the effects of lower profits on businessmen's expectation and, in general, the greater adequacy of existing capacity to meet current demand." [16]

The small decline in the first half of 1949 and the relative stability for the year as a whole warn our planners that we can no longer count on the fat provided by extra demand related to shortages in the forties. We have to mobilize all sources of demand.

Termination of Foreign Aid and Unemployment

It is well to speculate on the effects of eliminating the $6 billion of foreign aid which accounted for a corresponding excess of exports of $6 billion in 1949. Walter Salant of the CEA has shown that with normal growth 10 years from now consumption would have to rise to 77 per cent of gross national product (GNP), the equivalent of a rise of 50 per cent in outlays on consumption goods. This compares, let us note, with consumption outlays of but 69 per cent of GNP, the average for the years 1946-48; and, in the absence of radical measures to stimulate consumption, is surely an unattainable percentage in a full employment and high income economy.[17] Even in 1949, the reduction in the export balance of $500 million, which occurred despite a rise of government aid of $1.2 billion, was felt. Unless corrective measures are taken, then, unemployment would follow the end of foreign aid.

Effects of Cessation of Foreign Aid on Agriculture

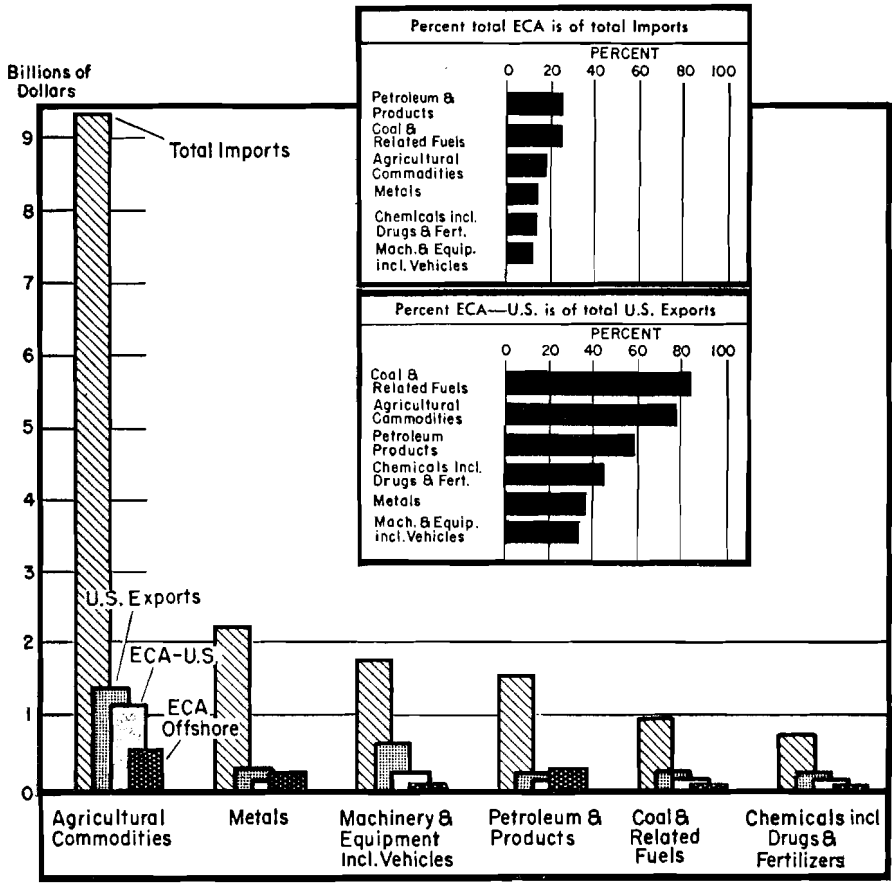
The effects are especially serious in agriculture. Europe, in particular, depends upon our agricultural exports. Foreign aid is an effective manner of supporting farm prices and incomes. In fact, the support of the ERP stems in no small part from a realization of the fact that foreign aid provides a market for agricultural surpluses. The alternative is drastic reduction of output, which is almost impossible of achievement in the required time, or else a drastic fall of incomes or continued accumulation of stocks. Foreign aid serves the dual purpose of (1) reducing political tensions and strengthening the resistance to totalitarian movements and (2) helping the farmer get a fair share of the nation's income without recourse to methods that are morally repugnant.

Agriculture's dependence on foreign aid is suggested by the following facts.

1. Chart number 1 shows that in the 13 months ending May, 1949 almost 80 per cent of the U. S. exports of agricultural commodities were financed by ECA, and almost 20 per cent of ECA countries' total imports

Comparison of ECA Countries' Imports, U. S. Exports to These Countries and ECA Paid Shipments of Principal Commodity Groups*

April 1948 to May 31, 1949

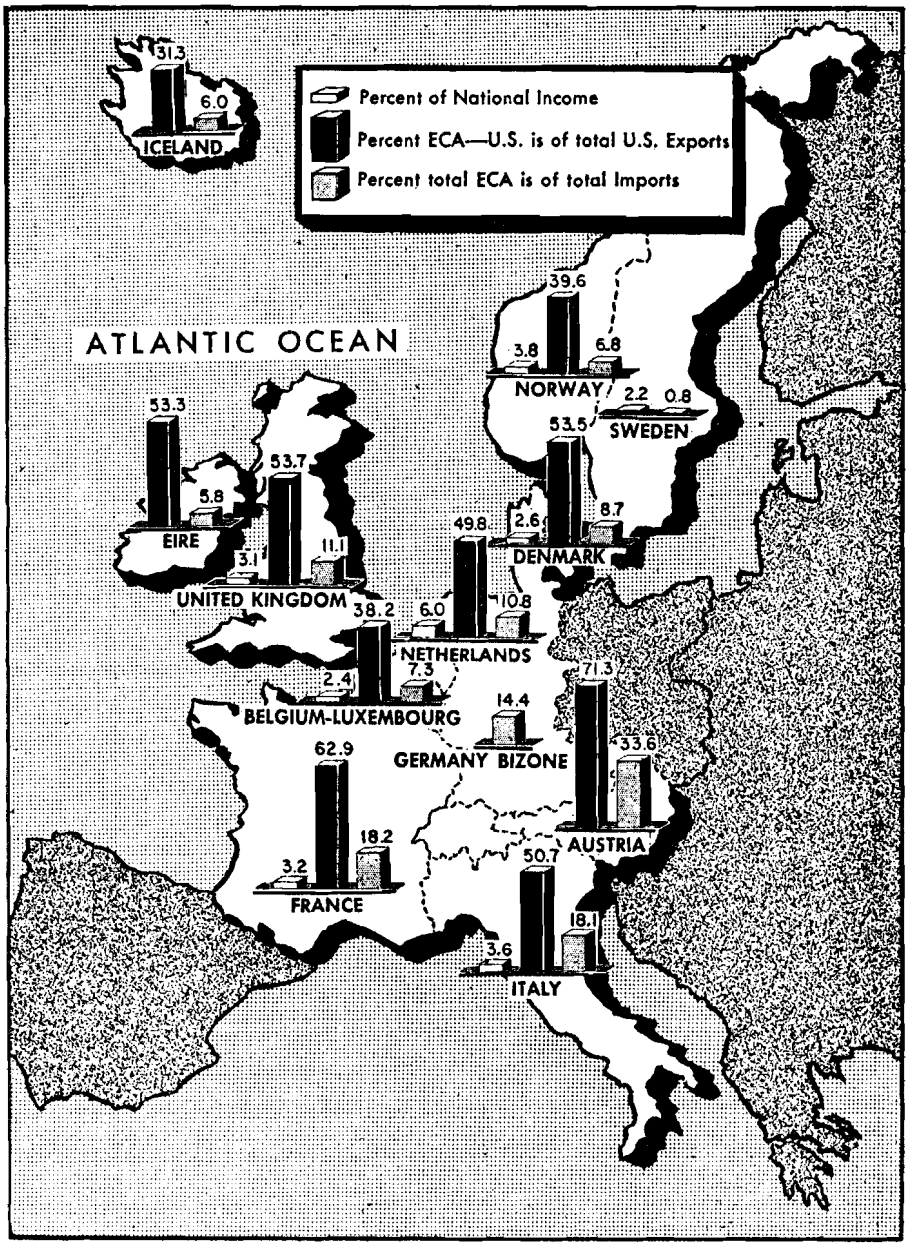


* These commodity groups account for about 62 percent of total imports and for about 94 percent of total ECA paid shipments.

of agricultural commodities were financed by ECA. The relevant percentage for agricultural commodities was among the highest for groups of commodities.[18] In Chart number 2, the percentage that ECA aid is to the national income of the European countries is given, also the percentage that ECA aid is to total exports, and the percentage that ECA aid is of the total imports of these countries. (These charts were made available by the International Monetary Fund.)

ECA Aid Compared with Imports and National Income of ERP Countries and with U.S. Exports

April 1948 through May 1949



2. The significance of U. S. exports of agricultural commodities is also suggested by the following:

U. S. Exports in Relation to Output

Commodity	Total U. S. Exports as Percentage of Production			U. S. Exports to ERP Countries as Percentage of Production		
	1935-39 Average	1947-48	1948-49	1935-39 Average	1947-48	1948-49
Raw cotton	42.5	17.1	33.1	26.4	7.6	21.1
Leaf tobacco	33.0	21.6	25.5	23.1	15.7	20.5
Wheat products	6.6	35.0	38.8	4.3	25.3	25.5

3. Effects of the disappearance of aid are suggested by the 4-year plan of the ECA countries. (Total imports from North and Central America in 1948-49 prices are to fall from $7.3 billion in 1947 to $3.8 billion in 1952-53.) [19]

Imports from U. S.: Agricultural Products
(Million $ — 1948-49 Prices)

Commodity	1947	1952-53
Bread	1,216	633
Meat and dairy products	277	38
Tobacco	272	151
Raw cotton	263	435

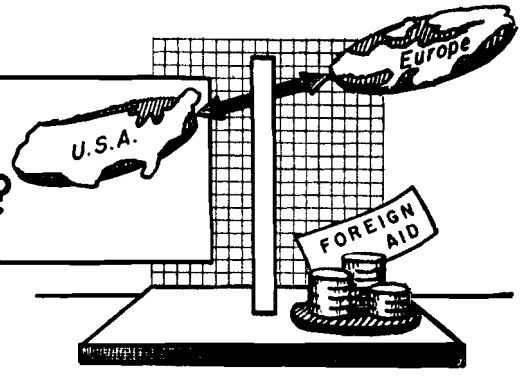
(Source: Economic Commission for Europe: *Economic Survey of Europe in 1948*, p. 196)

4. A decline in the value of exports in 1948 of fruit and vegetables (24 per cent), dairy products and eggs (30 per cent), and meat and edible fats (51 per cent) contributed to the weakening of the market for farm products. In the first 6 months of 1949 relative to the corresponding period in 1948, the exports of wheat (dollar value) declined by 10 per cent, of fruit and vegetables and dairy products and eggs each 12 per cent; but of meats and edible fats, rose by 6 per cent.[20]

From these figures we draw the conclusions that the farmer has already begun to suffer from a decline of foreign markets, and that much larger adjustments will be required unless foreign aid is to be continued. Assistance to underdeveloped areas will expand markets for Western Europe in these areas as the incomes of underdeveloped areas respond. Europe, in turn, then will have the wherewithal to purchase United States agricultural exports.

Part IV

Keep Up Exports or Abandon Foreign Aid?



In the preceding section we discussed the relation of foreign aid, exports, employment, and income. There the direct emphasis was on the effects upon this country. Another way of looking at the problem is to consider the problem of equilibrium in the dollar market. This is a problem which interests and vexes the whole world.

The problem of dollar shortage still awaits a solution. There can be but three possible solutions, or combination of them:

1) A continued excess of exports to be financed by U. S. loans or gifts.
2) A rise of United States imports.
3) A reduction of U. S. exports.

In 1947, the excess of exports was $11.3 billion; in 1948, $6.3 billion; in 1949, $5.8 billion. At the end of 1948, there were $17 billion of United States private investments abroad, with earnings of almost $1 billion in this year.[21] *Should the excess of exports evaporate and the outside world finance past private and public foreign loans, then the change-over from 1947 to 1952 (say) would be from an excess of exports of $11 billion to an excess of imports of $1 billion, or $12 billion in the export-import relationship. It is well to speculate on the meaning of this revolutionary change in our trade balance.*

Obviously, one road to this blotting out of the export balance is a rise of imports by this country. In many ways this is a preferable way out to a reduction of exports. Then the rest of the world would receive the goods they need, and we would receive payment in goods. Government and private lenders or donors would then cease subsidizing our exporters. The burden of adjustment would be transferred from the taxpayers to the industries that compete with the new imports.

The Campaign to Raise Imports

In the last year the State Department and the ECA have stressed

the need of raising imports as a means of solving the problem of the ERP countries. The ECA-Commerce Mission proposed an increase of United States imports from the ECA countries and their dependencies. Should these countries increase their sales of goods and services in our market—and particularly raw materials, special manufactured goods, and tourist services—to an amount equal to the pre-war proportion of our gross national product, they would increase sales by $2 billion, or 67 per cent.

The Mission lists obstacles to the expansion—controls abroad which discourage sales to the United States, high American tariffs,[22] United States Customs Administration, "Buy American" restrictions on government procurement, lack of aggressive selling methods by Europeans; inadequate credit facilities.[23] The Mission also suggests what foreign governments, our Government, and American business can do to stimulate sales. Thus, a Dutch exporter of blankets (FOB $7.15) pays an import duty of 60 per cent, or $4.30. The selling price at retail in this country is $23.00; the competitive price is $18.95. Hence the tariff should be reduced to $2.05. (This reduction in price to consumer would be more than $2.35, since mark-ups are based on total cost including tariff.) Again, Customs arbitrarily raised the applicable price of a Dutch floor polisher from the factory price to the wholesaler from $30.15 to $38.75.

The British are at a loss to understand why their sales to North America are but 1 £ per head and to Australia, 19 £ per head. Indeed, they strive to expand their exports to the United States: they propose to favor exports to the United States and Canada; give special service to exporters to these markets; provide special help because of large risks under the export credit guarantee scheme to sellers in the North American market; and special market research to tap interior markets away from the Eastern seaboard.

Exports to Canada and the United States had risen from $372 million in 1947 to $544 million in 1948; and the target for 1950 was $720 million.[24] But even should this goal be reached, the British would still be far from their goal of dollar balance; and similarly for corresponding gains for Western Europe. I leave out of account here the export of services and also the exports from the dependencies. Our imports of *goods and services* from ERP countries and dependencies were $3.17 billion in 1948; of imports of *goods* from ERP countries, $930 million.[25]

Effect of Imports

It is indeed important for this country to increase her imports as a

means of providing Western Europe with dollars. But the difficulties must not be underestimated. In 1948, the United States purchased less than $1 billion of goods from all of Europe ($330 million from the United Kingdom). In 1938, according to the Economic Commission for Europe, this country spent $27 billion on fifty-five manufactured commodities. Europe's contribution was $167 million, or 0.6 per cent, and in 1948, 0.2 per cent (estimated).[26]

With the current episode of devaluations and hence declines in the dollar prices of European exports, a rise of United States imports by about 300 per cent would be required to raise imports by the suggested $2 billion—a fantastic goal.[27]

First, because a reduction of tariffs will not help greatly. The United States has already experienced drastic reductions in tariffs since 1933, and vis-a-vis Europe comes close to being a free-trade country. Further concessions can be relatively small.[28]

Second, because the response of imports to the expansion of income is disappointing indeed—since both in 1929 and 1939 a rise of income in goods and services of 67 per cent was accompanied by one of imports of but 6 per cent.[29] In part, the explanation of the disappointing growth of our imports is that for every dollar additional made available to Europe the average American consumer must pay out several dollars. For example, Swiss watch works yield the Swiss exporter $3, but the American consumer pays on the average $25. A bottle of Scotch yields the British exporter $1 and sells here for $5.

The last point suggests the great obstacles facing a European exporter who tries to pierce the American market: he is confronted with competition in selling to the American public which will prove very costly to a seller who after once gaining entry cannot be sure of maintaining his market.

There are indeed other explanations: the shortage of resources for European exports; the continued economic gains of the United States and relative fall in prices here (from 1939 to 1948, average daily output in manufacturing rose by 30 per cent; in Western Europe, it declined by 10 per cent);[30] and the tendency of an advancing country—the United States, for example—to spend an increasing share of income on services, not on importable commodities.[31]

This means, of course, putting the responsibility for adjustment largely on American exporters. The net change required from 1947 to, say, 1952 may be about $12 billion, from an excess of United States exports of $11 billion to an excess of imports of $1 billion. This is a large adjustment for a limited segment of the economy to make. Agri-

culture's loss in export markets will be recouped to some extent by support programs.

Industry, with an income of about $60 billion and total sales of $200 billion, will have to make the major adjustments. These $12 billion will be lost largely to manufacturers who receive considerably less than $200 billion from their output, as the latter figure includes large additions for selling to our domestic markets. Losses of these proportions telescoped within a short period of time may cause serious harm to many industries.

All of this leads to the vital issue. Can Europe crowd the United States out of her market and third markets? If she succeeds on an adequate scale, will our well-organized export industries, inclusive of farmers, stand by while they watch their markets evaporate, in part in response to our strengthening of the competitive position of Europe through Marshall aid?

The probable answer is no, even if markets at home and abroad are expanding. The certain answer is no, if markets are contracting. Exporters will demand subsidized sales abroad; devaluation, direct dumping, etc.; and industries competing with imports will demand restrictions on imports. *In general, the sellers adversely affected will demand that the burden of adjustment be spread widely among taxpayers through further foreign aid, and not restricted to the injured seller; and that the adjustment be spread over a long period of time.* They could with some justice point to the inequities of concentrating the costs of the transition upon them.

I believe that the main solution to Europe's dollar shortage will have to be found in a rise of Europe's exports to other countries, or, failing this, in a reduction of European imports from this country and continued aid. She will find it easier to penetrate third markets at the expense of our exporters than to make great progress in our market.

In so far as Europe increases its sales at the expense of the United States in the outside world or diverts purchases from the United States, Europe will be saved dollars.

Conclusion on Exports

Our conclusion is that the necessary expansion of United States imports will not be forthcoming. Europe will not expand her exports to this country by 2-3 billion dollars, nor will the rest of the world, by several billion dollars, and thus equilibrate their balance by expanding exports to this or other dollar countries. *In the next 5-10 years, we shall*

have to depend upon continued foreign aid if we are to maintain our exports. Otherwise, Europe will have to solve the dollar problem by reducing imports from dollar countries drastically, and trying to oust our exporters from third markets. Drastic cuts in imports will have serious effects on the standard of living of Western Europe as consumption and investment are cut and high cost substitutes are provided; and the political effects are also likely to be serious.

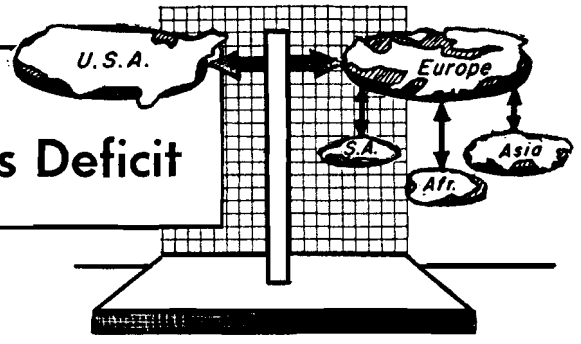
Our exporters are not likely to accept without violent protest exclusion from European and third markets. They will want to know why they are required to make the costly adjustments which may involve whole industries and bankruptcies. Like import-competing industries which are asked to take the brunt of the adjustment if the way out is a rise in imports, they will demand wide incidence of the transitional adjustment—that is, they will demand that the taxpayer should bear the burden.

American exporters do not accept large reductions in export markets with equanimity. In the highly standardized areas (e. g., agricultural products) the difficulties of adjusting supply and the great political power of the farmers militate against acquiescing to large losses in foreign markets. In non-standardized commodities, the American exporter frequently is prepared to absorb part of his selling and overhead costs on foreign sales in order to maintain a high level of output.

Yet in the last year or two, the United States exporter has watched his markets dwindle as the rest of the world has increasingly discriminated against American exports. The losses of United States in foreign markets were not in response to comparative-cost principles. As a study of the International Monetary Fund observes, exports of machinery *and prices* of United States machinery rose in 1948, while in the non-durable area, both exports and prices fell.

Part V

In Relation to Western Europe's Deficit



The Three Area Nexus

We now turn to the relation of help to underdeveloped areas to the deficit of Western Europe. It is clear to most observers that by 1952 OEEC (Marshall Aid) countries will not be in balance on dollar account, and probably not on over-all account. The difficulty is in large part the limited access to markets abroad. As has been suggested, a large expansion of exports to the dollar area is not likely. Confronted with a yawning gap in its dollar account, Europe protects itself by buying more from non-dollar sources and selling more to dollar areas. In so far as it cannot penetrate the dollar markets, it will also have to sell more to the non-dollar areas and notably to the underdeveloped countries. Unfortunately the required food and raw materials at reasonable prices are not now to be had in the underdeveloped areas; and these areas do not have the purchasing power to absorb the necessary exports of Western Europe.

From this we draw the conclusion that a vigorous program in the underdeveloped areas would greatly help to solve Europe's export and import problems and the United States export problem, and satisfy the desire of these areas for growth. A given outlay should yield a larger rise of income than a similar capital export to Western Europe. This follows because the potential yield of capital in a capital-starved area is very high. The resulting rise of income should yield not only a market for Western Europe and United States exports but also provide the raw materials which Europe cannot obtain elsewhere or only at high costs. As development proceeds, the underdeveloped countries will also expand their sales to the United States, with the result that they will earn dollars, as they did before the war, to pay for the excess of imports from Europe. (The United States market is more responsive to exports of these countries than to those of Western Europe.) In turn, Europe will have more dollars to purchase United States exports and thus will cut imports from this country less than otherwise would be necessary.

In short, a substantial development program will provide Europe with needed raw materials, markets and dollars; the United States with increased markets in the underdeveloped areas; Europe a longer breathing period to adjust to reduced imports in so far as this proves necessary; a greater net contribution to the growth of world income than a corresponding sum sent to Western Europe; and the underdeveloped areas more output, exports and imports. But the ERP countries, although greatly aided by loans and grants to the underdeveloped countries, will probably require some direct aid in the years 1952-55.

Western Europe's Deficit

In 1937, Western Europe's dollar account was roughly in balance; in 1947, the over-all deficit was $7.6 billion; and in 1948, $5.6 billion. In 1947, the deficit with the United States was $5.7 billion, and in 1948, $3.6 billion. Part of the recent difficulties of Western Europe have stemmed from a failure of the dependencies to make their pre-war contributions to the dollar account. In 1937, they had a favorable balance of $314 million, and in 1946, 1947, and 1948, unfavorable balances of $302, $332, and $63 million, respectively.[32] *At 1949 prices, the resulting loss of dollars to Europe (I compare 1937 and 1948) was around $800 million, or close to one-third of the dollar deficit.* The excess of exports of Africa, Asia, Latin America, and Oceania, the underdeveloped continents in 1938, according to the master table in the ECE study, *Economic Survey of Europe in 1948,*[33] was $532 million; in 1947, an excess of imports of $2,430 million, and in 1948, virtual balance. The loss in 1949 dollars was about $1 billion.

A development program which retrieves the dollar losses of the underdeveloped areas would then make a major contribution to Western Europe's balancing of accounts. Indeed, the improvement in 1948 was remarkable. Before the War, Western Europe obtained part of the dollar earnings of the dependencies as income on investments. But by 1947 an investment income (*total*) of $1.3 billion had largely vanished. The estimate of investment income and debt service for 1952-53 is $187 million. All invisible income (i.e., interest and profits from past investments abroad, net earnings on shipping, insurance, etc.) had fallen from $2 billion in 1938 to a deficit of $750 million; but for 1952-53 Western Europe anticipated a net income on invisible account of $1.2 billion. Of this total, $842 million were to come from the sterling area. In order to obtain access to the additional dollars earned or received by the underdeveloped areas, Western Europe would have to rely more on exports to these areas and less on invisible earnings than in the pre-war.[34]

Manner of Adjustment

It is one of the paradoxes of current economic policy that the United States strengthens the economies of Western Europe and the latter retaliates by discriminating against United States exports—for only in this manner, under present conditions, can Europe approach a balanced dollar account. The ERP countries strive to buy in non-dollar countries and sell in dollar markets.

Thus, in 1948, intra-European imports rose by $1 billion, or 27 per cent, whilst European imports from the United States and Canada declined by $972 million, or 30 per cent, and from other overseas areas rose by $612 million, or 21 per cent. Europe was much more successful in keeping dollar goods out than in pushing sales in dollar markets; for the gain in exports to the United States and Canada was but $147 million, as compared with a rise of intra-European trade of $1 billion and of exports to *other* overseas areas of $742 million. (All figures in 1938 prices.)[35] Percentagewise the gain of exports to dollar areas was satisfactory; but the absolute gain was disappointing. The crisis was met by shutting out our exports, not by selling more to this country.

For the next few years, the OEEC (*Organization for European Economic Cooperation*) countries seek to make their major adjustments by scrutinizing imports and continuing to expand exports, and in particular by excluding imports from dollar areas and expanding exports to dollar areas. Whereas, in 1938, they financed 70 per cent of their imports by exports and 30 per cent by invisible earnings, in 1947 the respective percentages were 41 and 6, and the programmed percentages in 1952-53, 83 and 10. (The remainder of a deficit is met, of course, by loans, gifts, and reserves.) Despite the larger contribution of anticipated exports, the volume of imports is to be no larger than in 1938.[36]

The direction of trade is suggested by the following:

Sources of OEEC Countries' Imports from Outside World (Exclusive of Dependent Territories) ($ Billion — 1948 Prices)

	1938	1947	1952-53 Program $ Billion	1952-53 Program % of 1938
North and Central America	4.1	7.3	3.8	93
South America	1.7	1.7	2.1	122
Non-participating sterling area	2.9	2.0	3.3	116
Eastern Europe	3.0	0.9	2.2	73
Other countries	1.3	0.6	1.4	108
Total	13.0	12.5	12.8	99

Source: OEEC: *Interim Report of the ERP,* I (December 1948), p. 54.

Will Western Europe Reach Its Goals?

This table points to very large losses of exports by the United States vis-a-vis 1947, and even substantial *relative* losses vis-a-vis 1938.

Export goals for 1952-53 are not likely to be attained. They are: a rise of exports from 1947 to 1952-3 (1948-49 prices) to the United States of 100 per cent, to South America of 107 per cent, to non-participating sterling area of 55 per cent, to Eastern Europe of 167 per cent, and to all countries of 96 per cent.

Even the OEEC is gloomy concerning the possibilities of attaining these goals. They conclude that supplies available from the sterling area, Eastern Europe, and the Far East may well fall short of the programmed figures by $1 billion. Exports to South America, in their view, are on present prices and policies unlikely to exceed $1.3 billion, or only two-thirds of the planned exports. Exports to North and Central America are unlikely to exceed $2.3 billion, and hence to reach only 60 per cent of programmed imports. Even to attain these goals, Western Europe counts on $500 million of gold and dollar balances to be disposed of by the overseas areas. Indeed, the non-participating sterling area should provide $700 million; but these resources will be required to meet the planned investment of the United Kingdom in this area, to cover the area's adverse balance with other areas outside the Western Hemisphere, and partly to pay indirectly for the gold and dollars to be earned in the British colonies.[37]

In view of the shortage of supplies in overseas areas other than dollar countries and in view of the shortage of dollars, the emphasis on the need for development of overseas countries by the OEEC and also by the British Government is readily understood. They want more supplies and they want these overseas areas to earn dollars on the pre-war scale.[38]

Dr. Mendershausen recommends that the excess of imports of the underdeveloped areas should rise from $1.7 billion in 1948 to $6 billion by 1952, an expansion to be achieved by foreign aid and loans. As a result of the increased buying power of the underdeveloped areas, Europe would find the required outlets for her exports.[39]

Proposed Redirection of Aid

In 1948, the excess of exports of the United States and Canada to (1) Western Europe was $2,236 million; to (2) Southern Europe, Latin America, Oceania, Africa, and Asia, $2,645 million; and the latter group's excess of exports to (3) Western Europe, $1,538 million.

In tabular form are some suggestions made by Dr. Mendershausen:[40]

Billions of Dollars		
	1948	Proposed
1. Excess of Exports of United States and Canada to		
a. Western Europe	3.2	2.5
b. Underdeveloped Areas	1.0	3.0
2. Western Europe Aid to		
a. Independent Underdeveloped Countries	1.0	1.0
b. European Dependencies		1.5

1. Europe is to receive $2.5 billion and pay out $2.5 billion. Hence no net inflow of capital.

2. Underdeveloped areas are to receive $5.5 billion: from Western Europe, $2.5 billion, and from the United States and Canada, $3 billion.

3. The United States and Canada are to make $5.5 billion available: $2.5 billion to Western Europe and $3.0 billion to underdeveloped areas.

Colonial Development

But let us return to the OEEC plans. The British, in particular, have a long row to hoe: they must cut imports by $1 billion vis-a-vis 1947, increase exports by $800 million and invisible earnings by $600 million, with a resulting deficit of $300 million, as compared with $2,700 million in 1947.

They stress the need of developing overseas territories; but they realize that large outlays for health and education are required at an early stage; and hence the response of exports will be slow. Even by the end of 1948, authorities had approved 17 major long-term development plans which were to cost $750 million (largely British capital). These programs provide for general expansion of basic economic services, social services, research, etc. For projects of a purely commercial character, the British will rely on $600 million available to the Overseas Food Corporation and the Colonial Development Corporation, and on local savings, ECA loans, private investment, etc. It is significant that, despite the famine of foreign exchange, the British are prepared to spend $1 billion or more on development over a period of, say, 10 years, and various European countries have earmarked about $1,800 million for colonial development and have spent about $300 million.

By 1948, the British Colonies had a surplus in dollars running at the rate of $150 million per year. They expect to do better. The anticipated

rise of output in the Colonies is as follows:

Production in British Colonies
(000 Metric Tons)

	1936	1937	Forecast 1952-53
Groundnuts (exports)	300	335	880
Sugar	980	895	1,400
Rubber	400	435	830
Tin	78	27	94 (1950)
Copper	158	202	356
Bauxite	100	1,250	1,950 (1950)
Lead	½	16 (1947)	35

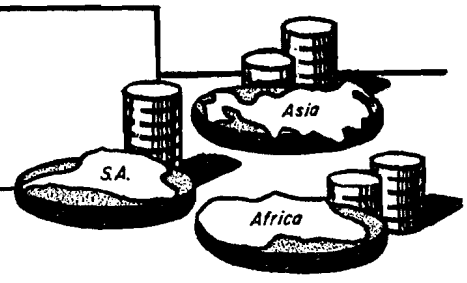
Source: OEEC: *Interim Report on the ERP*, II, p. 912.

The French investment program for overseas territories is estimated at $1.3 billion for the years 1947-51 and about $1.1 billion for 1951-56, or an annual average of $240 million. This is about 1 per cent of national income: a corresponding figure for the United States would be $2.3 billion, annually. By pushing development programs in overseas territory the French Government plans to convert an adverse balance in her dependencies of $163 million in 1947 and $174.6 million in 1948 to a credit balance on current account of $167 million in 1952-53.[41]

By way of summary. By 1952, the direction of aid should change. Western Europe should receive much less, and the underdeveloped areas much more. American dollars will yield richer returns in the latter than in the former; and Western Europe will gain indirectly through a rise of exports in underdeveloped areas and hence an increase in dollar earnings. As incomes in the underdeveloped areas rise, the United States will profit from increased sales both in Western Europe and in these areas. It does not seem likely that Europe will balance her accounts after 1952 without some direct aid and much indirect aid through development programs. The experience of 1947-49 points to drastic and disastrous reduction of imports by Europe as the likely road to balance in the absence of aid.

Part VI

How Much Foreign Investment?



Criteria

In an unpublished manuscript (Dollar Shortage), Professor Kindleberger, of M. I. T., lists four criteria that have been used for estimating the appropriate volume of capital exports. (I repeat three here.) 1) How much the country wants to invest as suggested by past patterns and objectives. On this basis, the NAM apparently estimated the proper sum of $2 billion yearly. 2) Deficits in the balance of payments. By using this method, the FAO estimated $8 billion as the amount required. 3) The excess of savings over domestic outlets for investments in the creditor nation. Thus, if the United States saves $30 billion, and there are estimated outlets at home of but $25 billion (inclusive of contributions by government in deficit financing), then the proper amount of foreign investment would be $5 billion.

Other criteria may be used — e. g., the amount to be determined by broad economic and political considerations. Thus, the Truman Administration might decide that, given other demands on the budget and the contributions to be made by a foreign aid as against other programs, this country should allocate x per cent of the national income towards foreign aid.

The FAO estimates that since 1945 the average of capital exports for all countries has been $10 billion annually, of which approximately $4 billion went to underdeveloped countries. On the basis of present plans, the FAO would suggest an equal sharing of $8 billion yearly by the developed and underdeveloped countries, the increased share to the latter to be justified by the large progress already made in post-war reconstruction in the former.[42]

American Needs for Outlets of Savings

Just before World War I, the four major leading countries were advancing about $1.5 billion annually in foreign loans. On the basis of current income levels, a corresponding amount of capital exportation would

amount to at least $6 billion. In the next few years at any rate, the major part would, of course, have to come from this country. This is one way of looking at the problem. That the underdeveloped countries are now taking the initiative suggests the possibility of larger relative outflows and increased cooperation.

American experience also throws some light on these problems. The United States' excess of exports, as already mentioned, amounted to over $100 billion in 35 years. Dr. Mendershausen has calculated the amounts by periods as follows:[43]

	$ Million		
1914-18	2,540	1938-41	1,189
1919-22	2,149	1941-45	8,620
1923-30	314	1946-48	7,655
1931-37	—104	1949	5-6,000

These are not estimates of private loans, or private and public loans plus grants. They allow for the interest and dividend payments and gold movements. In its analysis of the balance of payments, the International Monetary Fund also considers gold movements like capital movements—an outflow of gold equivalent to an inflow of capital, and an inflow equivalent to an outflow of capital. An inflow of gold finances an excess of exports, as does an outflow of capital. Hence, in 1923-30, the financing of exports of goods and services by the United States was much less than might be suggested by the outward flow of capital, because $581 million (annually) were received for interest and dividends. From 1938 to 1941, on the other hand, despite an inward flow of capital of $583 million and of dividends, etc. of $352 million, the net financing balance was $1,189 million—the explanation of the outflow of capital being largely an inflow of gold of $2,409 million (again annual). Dollars paid for imports of gold are considered as a means of financing an export of goods.

This approach yields a smaller net contribution of the United States towards financing exports than my earlier calculations. The average is but $2½ billion per year, not an amount in excess of $3 billion. The explanation of the difference is that we deduct from U. S. financing of exports the amounts paid by foreigners in dividends, interest, etc., transferred.

What is the equivalent of $2½ billion for the years 1914-49 at expected incomes in the fifties? At these incomes (say $250 billion, a low estimate at 1949 prices), the United States could finance an excess of exports of $7 billion per year in the fifties, probably without putting a greater burden on the economy than the $2½ billion made available annually in the last generation. It can be assumed conservatively that the

returns on interest and dividends (−$972 million in 1948) would offset the inflow of gold. *Hence, on the basis of experience in the years 1914-1949, we may say that we would have to export $7 billion of capital to match the relative contribution of 1914-49. That is to say, $7 billion is approximately the same proportion of income to be expected under sound management in the fifties as $2.5 billion was in the years 1914-49.* Obviously, 3 per cent of income in the fifties would be less burdensome than 3 per cent of a much lower income in the years 1914-49.

Foreign Requirements

One estimate is by the FAO, which is based upon the plans of 42 countries and 32 dependencies:

Estimated Investment Needs Over Next Four Years

	(1947-48 Dollars)—Billions Estimated Total Investment	Estimated External Financing	Per cent of External Financing in Total Investment
Developed Regions — Western and Central Europe and Oceania	99.3	17.3	17
Underdeveloped Regions	37.6	15.5	41

The major amounts of foreign aid for the underdeveloped areas were to be (in billions of dollars): Far East, $5.8; Southern Europe, $3.7; Africa, $2.9; and Latin America, $2.3. The average annual amount for all underdeveloped areas is $9.4 billion, of which $3.9 billion would require external financing. These totals suggest an annual requirement of $4 billion per year for underdeveloped areas *for the next four years.*

Dr. Staley has presented another approach to the problem: he has studied the absorption of capital by Japan since 1900, in relation to income. On this basis, he finds that a population of 1 billion (outside of Japan) in Asia would require the following amounts of capital (in 1936 dollars) in 10-year periods:

Billions of Dollars

10-Year Period	Total for 10 Years	1-Year Period	Millions of Dollars Required Foreign Financing (Annually)
1st	26.5	2.65	1,000
2nd	47.4	4.74	1,700
3rd	91.5	9.15	3,300
4th	104.6	10.46	3,500

Dr. Staley's estimate of foreign financing for the Far East, which was made before the FAO estimate, is $1 billion per year for the first 10 years. Since the total increases with passage of time, the amount involved per year for the first 4 years should be less than that figure. These are, however, in 1936 dollars. In 1947-48 dollars, the total would be less than twice as high. The amount would be substantially less than $2 billion in 1947-48 dollars and compares with an annual average of $1.5 billion for the Far East in the FAO study. (I say substantially less because the absorbable amounts in the first 4 years will not equal the average for the first 10 years.) Hence the estimates made by the use of entirely different techniques are not too far apart. Dr. Staley contends that the Far East (exclusive of Japan) could absorb capital much more quickly than Japan did after 1900: technical aid and capital can be mobilized more quickly and more efficiently now.[45]

An Estimate of Investment

Another approach is the following: We assume a gradual reduction of 20 per cent of the working population in agriculture. Then we assume that each worker will require an investment of $1,200 per capita to provide the roads, streets, power, transportation, education, schools, houses, etc., and, of course, the factories and equipment. (This is based on past experience in countries industrializing.) Then (cf. p. 52 for shifts in population) the required investment would be:

Estimated Annual Investment Needed to Create Facilities for New Non-farm Workers, by Regions
($ Billion per Year)

	1950 to 1959	1960 to 1974	1975 to 1999
Southern and Eastern Europe	0.6	0.8	1.1
Asia	4.7	5.2	5.5
Africa	0.7	0.8	0.7
Latin America	0.8	0.8	0.9
Total	6.8	7.6	8.2

Part of the investment shown could be carried by internal savings, but in view of the low incomes of most of the underdeveloped regions, a large proportion would need to come from outside to finance the expansion assumed, unless compulsion of the Russian type were used to force savings well above the voluntary rate. During the initial years, it might be assumed that the domestic savings would only be sufficient to cover the additional investments which would be required in agriculture, leaving about $7

billions a year to be financed by foreign investment. As incomes in the underdeveloped regions increase, they would be able to provide more of the capital needed for this expansion, so that by 2000 the additional net investment needed from the outside might fall to 4 billions a year.

This figure on the whole errs on the pessimistic side. The FAO estimate is that the required foreign financing is but 41 per cent of the total; and the Japanese experience suggests a similar proportion. But the FAO figures suggest external financing of $4 billion *for the first four years.* Our estimate of $1,200 required per worker may be far too low. This country has an investment of about $12,000 per worker. This figure relates total wealth to total workers, and is of course too high for this purpose. Another estimate is $2,474 of capital assets other than land per worker in 1937. At 1949 prices, the amount would be at least $4,000. (There have been large additions and some economies since 1937.) From 1937 to 1949 inclusive, gross private investment in non-farm producers' plant and equipment was $137 billion. At least one half was net and hence about $1,500 per non-agricultural worker has been added since 1937. (These are the roughest kind of estimates.) Ezekiel's estimates for 1944 were $3,000 per industrial worker added in the U.S.S.R. during its industrialization process, and about $1,000 for the underdeveloped areas. These figures relate, however, to dollars of much higher purchasing power. Today, at least $1,500 would be required to do the work of $1,000 in 1944.[46] All of this may suggest to the reader that our estimate for investment need, based on $1,200 new capital per new industrial and service worker, may not be so excessive as may be inferred from the FAO estimate of foreign financing required.

Let us assume then that $7 billion annually will be plowed into underdeveloped areas. There is some advantage in using a figure that may be a little large just to see what financing problems are raised. Besides, we relate our figures to a 10-year period and the initial year may not be 1950; and we assume greater difficulties in raising domestic savings than has been suggested by others.

If three-quarters of the international investment in the first decade came from the United States and the rest from other investing countries (which was about the distribution of foreign funds from 1946 through 1948),[47] the share from the United States during the first decade would run something under 5 billions a year, and possibly gradually less thereafter, as the investing power of Western Europe increased. While this is not excessive when compared with the $5.4 billion average provided by the United States Government in foreign loans and grants for the years 1946-49, the distribution would be markedly different. (Note also that prices were 5 per cent higher in 1949 than in 1946-49, and

hence the $5 billion corresponds only to $4.75 billion, or 15 per cent less than the $5.4 billion provided in 1946-49.) The bulk of previous funds (over two-thirds) went to the reconstruction of the parts of the world formerly most prosperous, while the new funds would go to finance programs to raise the productivity and buying power of the most poverty-stricken regions. At the same time, however, if these regions were allowed to spend the dollars wherever they wished—for capital goods and other industrial equipment from Europe, for example, the net effect would be, as suggested above, increased markets for Europe, and hence indirectly for the United States.

Assuming (a) that all the investments shown in the last table were supplied by foreign investment, (b) that amortization at 3 per cent a year of the original amount started 10 years after each loan was granted, and (c) that interest was charged at 3 per cent a year from the beginning, the total foreign investment, the amount remaining unpaid, and the cost for debt service as compared with incomes, would run as follows in 1960, 1975, and 2000:

Estimated Debt Service and National Income, Underdeveloped Regions
(Billions of Dollars)

	Total Foreign Investment to 1st of Year	Unpaid Balance 1st of Year		Assumed Debt Service			National Incomes	Debt Service as Percent of National Income
		Total	Subject to Amortization in Current Year	Int. on Unpaid Balance at 3%	Amortization on Amount Subject at 3%	Total for Year		
1960	68	68	6	2.04	0.20	2.24	124	1.8%
1975	182	146	70	4.38	2.10	6.48	200	3.2%
2000	387	213	131	6.39	3.93	10.32	372	2.8%

The debt service would of course have to be paid for by earnings from a net surplus of exports over imports. This would, however, be partly offset by the continuing flow of investments assumed as follows:

Annual Net Balance of Payments Between Developed and Underdeveloped Regions
($ Billion)

	1950	1960	1975	2000
New Investment	6.8	7.6	8.2	8.2
Debt Service	0	2.2	6.5	10.3
Balance Due Underdeveloped Regions	6.8	5.4	1.7	
Balance Due Developed Regions				2.1

There would be a net annual excess of new investment above debt service until well into the 1980's; thereafter a net export surplus would

have to be developed by the underdeveloped regions—and accepted by the developed regions.

With the continued expansion of the national income of the developed region as well, however, the net export surplus would be small. As compared to the $900 billion national income for the U. S. alone estimated by President Truman by 2000 (a conservative projection in view of past growth trends in the U. S. economy if atomic war is avoided and we are blessed with good management), this would require a net import surplus by the U. S.—if all taken here—of only 2/10th of one per cent of our national income then. If, on the other hand, we continued to increase our foreign lending more in proportion with the growth of our own income and that of other regions, we could still continue to maintain a net export surplus even 50 years ahead. Or, if we made even a part of the foreign financing as grants instead of as loans (as we have done with most of the Marshall Plan advances), or if we reduced the interest rates or deferred the amortization repayments even further, we would eliminate entirely the need for developing any net import surplus here, and continue a net export surplus with the underdeveloped regions for even longer periods. (And, as we argue elsewhere, the case for amortization is weak.)

Problems Raised by a Growing Foreign Debt

As a foreign debt rises, the financing charge also increases; and if the latter includes amortization as well as interest, then it will not be long before the financing charges exceed the annual new loans. This, of course, assumes that the amount advanced each year is stable and does not rise with a growing income both in the creditor and debtor countries; and also that amortization is an appropriate policy. Whatever the appropriate policy for individual loans, the case for over-all amortization of loans by any one country is weak. Just as the total debt and capital of this country has grown over long periods of time, so foreign capital and debt might be expected to grow. One would be entirely wrong to assume that just because the International Bank for Reconstruction and Development (IBRD) requires amortization and a 4 per cent loan, national accounting should be along similar lines. (As a matter of fact, in view of the over-all gains for the U. S. economy to be expected from foreign lending, the case for a 4 per cent loan is weak. Surely a lower rate would be appropriate.)

These estimates of the cumulative rise of loans required to finance, say, $1 billion excess of exports can be very misleading. For example, Dr. Hinshaw has presented the following cases:

Conditions of Loan	New Financing Required to Maintain $1 Billion Excess of Exports
1. 2 Per Cent Loan without Amortization	$1.64 billion } in 25 years
2. 2 Per Cent Loan and 20-Year Amortization	4.41 billion } in 25 years
3. 8 Per Cent Loan without Amortization	46.9 billion—in 50 years

What are the problems raised by these exercises in arithmetic? First, as has been pointed out before, they suggest that the accumulation of interest raises serious problems of finding adequate investments to offset the resulting savings. This is a national problem which arises from investments in the United States as well as from foreign loans. But it is necessary to take into account both the rise of income (and investment openings) that accompanies the expansion of past investment and of income on investments; and also the failure of the compound-interest principle to work in the domestic economy. The Pitt-Hamilton discussion of the early 19th Century on paying off the national debt is germane. Somehow, the penny invested in Caesar's day, or the $1,000 invested in the days of George Washington, does not yield the fantastic sums expected. Somehow, the interest payments do not get out of bounds. In summary, as investments rise, both at home and abroad, the accumulated financing charges may seem excessively large, because inadequate allowance is made for losses of capital and corresponding declines in earnings, and new investment outlets to absorb the rising finance charges. (The latter is important because one of the fears of a cumulative increase in financing charges revolves around the resulting excess of savings over outlets for savings.)

But there is a second perplexing issue. How will the foreign countries be able to finance their growing debt? This, of course, is the transfer problem. Obviously, one way out is to increase the volume of new loans. As their incomes and those of their creditors rise, this is to be expected. The creditor countries are then in a position to buy more goods—and clearly they would as incomes rose. But they can also use the proceeds of interest to finance new investments abroad. That is to say, foreign investments may rise. (This is suggested by our table on financing of foreign investments.) A third consideration is that as the borrowing countries develop and savings rise in the creditor countries, not only will amortization (on a national scale) not be required but interest rates should fall. Above all, it is well to remember that not only do the interest payments rise, but income and exports and imports also rise.

Professor Domar has shown that if the gross outflow of new capital

increases at a percentage rate equal to the average realized interest and dividend rate, a perpetual balance between imports and exports of goods and non-financial services will be approached.

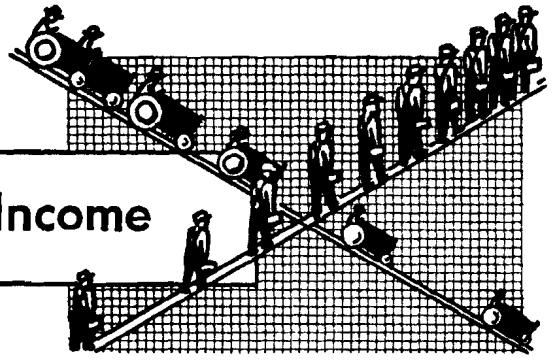
We conclude that by concentrating on the rise of financing charges and leaving out of account the accompanying increase of income, investment outlets and trade the alarmists may shorten the period of capital exportation altogether too much.

The following from Walter Salant's paper referred to earlier, is illuminating:

"... let us assume that next year we invest five billion dollars abroad at an average return of 4 per cent a year. To avoid developing an import surplus, our net foreign investment would have to increase by 4 per cent a year. It would reach about $35 billion a year by the end of the century. However, if gross national product in money terms increased in the next 50 years at the same rate that Kuznets estimates real national product rose from the decade of the 1870's to the 1920's, it would reach about 2 trillion dollars in 1948 prices by the end of the century. On that assumption, the $35 billion of net investment would be only 1¾ per cent of the gross national product." [48]

Part VII

Development and Income



Past Relationship

The case for development is not a simple one: rising income, more trade, diversity in sources of income and hence greater stability and less vulnerability to economic fluctuations abroad are the more important arguments. Development generally includes industrialization; but of course where countries (e. g., New Zealand) have large comparative advantages in farming, development may concentrate on farming.

Let us consider the relation of industrialization to income. The evidence is overwhelming that income rises in response to industrialization. Thus, Dr. Louis Bean, in a brilliant study of the problem, estimated that about 800 millions of the world population of 2.2 billions are to be classified as gainfully occupied, and about 500 millions in agriculture. Should the proportion of those engaged in agriculture decline from 60 to 40 per cent, that is to say, a migration of 150 millions from the farms, there would, in his opinion, be a striking gain of income.

China would have to shift 70 million workers; India, 27 millions; U.S.S.R., 13 millions; Poland, 2 millions; Japan, 2 millions; and Latin America, 2 millions. Dr. Bean estimates that if the agricultural working population were reduced to 40 per cent of the total in the 20 countries with excess agricultural populations, per capita income of $70 in 1925-34 would be raised by 170 per cent, or to $190. Should the shift be entirely to tertiary industries, the gain would be almost 200 per cent. Since the population involved is 1.25 billion, and the rise of income about $120 per capita, the gain in income would be $150 billion, or a rise of 60 per cent in relation to the estimated world income of $250 billion in 1925-34.[49]

In general, high incomes go with industrialization. The table on the next two pages shows that the lower the percentage of population dependent on agriculture and fishing, the higher the real income, the gross value of manufacturing per capita, the consumption per capita, agricultural production per capita and per hectare of agricultural land.[50]

It is no surprise to find that the industrialized countries are more productive both in industry and in agriculture. Technological developments in industry soon spill over into agriculture.

Of significance is not only the higher incomes per capita in industrialized countries, but also the larger populations supported at a given income in industrialized areas. Clearly, the British could not support 50 million people in an area of 150,000 square miles unless it were a heavily industrialized nation. Hence, not only the per capita income, but also the number enjoying the high incomes are relevant.[51] In national income the per capita advantage for the developed area over the underdeveloped area is about 10 times; in non-human energy consumed, 21 times; industrial investment, 8 times; in miles of railroad (per thousand square miles of area) the advantage is 2 times; in motor vehicles, 110 times; in telephones, 44 times.

Development and Economic Conditions

In a study for Congress, the State Department divided 53 countries with 85 per cent of the world's population into three groups:

1. *Developed*—15 countries with one-fifth of the world's population. These countries included primarily the United States, Western Europe, the British Dominions, and Argentina. Per capita income exceeded $200, and average (arithmetic mean) income in 1939 was $461.

2. *Intermediate*—10 countries with one-sixth of the population. Included were countries in South and East Europe, Chile, etc. The per capita income varied from $100 to $200, the average being $154.

3. *Underdeveloped*—28 countries with two third of the population. The relevant countries were primarily in Asia, the Near East, and Latin America. Their per capita income was in each case less than $100, and their arithmetic mean, $41.[52]

The table below summarizes the differences in variables of well-being according to income levels and degree of development. When incomes are high, expectation of life is high, death rates low, per cent of illiteracy low, food and clothing consumption high, energy consumed and investment per worker high, public utilities services high, and yield of land high.

These over-all averages conceal striking differences among countries. Thus, in India only 54 out of 100 infants born attain age 15, and only 15 of 100 attain age 60. In the United States, the corresponding

Table I VARIABLES CHARACTERISING THE ECONOMIC STRUCTURE OF EUROPEAN COUNTRIES

Country	Population dependent on agriculture and fishing around 1930 (percent) (1)	Real income 1925-1934 per head of occupied population in 1930 (b) (2)	Gross value of manufacturing production per capita 1926-1929 (dollars) (3)	Power[a] consumption per capita 1938 (millions of calories) (4)
Turkey	82 (1935)			202
Albania	80[c] (1930)			310
Bulgaria	80 (1934)	284		324
Yugoslavia	79 (1931)	330		597
Roumania	78 (1930)	243	20	544
U.S.S.R.	67 (1930)	285[d]	30	1,595
Poland	65 (1931)	352	30	1,018
Finland	64 (1930)	380	110	2,557
Greece	54 (1928)	397		639
Hungary	54 (1930)	359	50	704
Portugal	51[e] (1930)	342[e]		748
Spain	50[c] (1930)		40	470
Ireland	48 (1936)	707		738
Italy	48 (1936)	343[f]	80	799
France	36 (1931)	684	160	2,506
Denmark	36 (1930)	680	140	2,564
Sweden	36 (1930)	653	160	3,476
Norway	35 (1930)	539		4,477
Austria	32 (1934)	572	90	1,630
Czechoslovakia	28 (1930)	455[g]	110	1,505
Germany	29 (1933)	646	180	4,041
Switzerland	21 (1930)	1,018	170	2,511
Netherlands	21 (1930)	855	160	2,194
Belgium	17 (1930)	600	240	4,128[i]
United Kingdom	7 (1930)	1,069[h]	190	5,400

SOURCES:

(1). *Industrialization and Foreign Trade,* (League of Nations) pp. 26-7; *Economic Demography of Eastern and Southern Europe,* (League of Nations) p. 26

(2). Colin Clark, *Conditions of Economic Progress,* p. 41

(3). *Industrialization and Foreign Trade,* (League of Nations) p. 84

(4). "Inventaire Economique de l'Europe," *Etude et Conjoncture,* Oct.-Dec. 1947, p. 260

(5). and (6). *Economic Demography of Eastern and Southern Europe,* (League of Nations) p. 35

(7). Ibid. p. 193

VARIABLES CHARACTERISING THE ECONOMIC STRUCTURE OF EUROPEAN COUNTRIES

Table I

Country	Index of Agricultural Production 1931-1935 (European average=100) per person dependent on agriculture (5)	per hectare of agricultural land (6)	Yields per hectare of seven important crops, 1931-1935 (Weighted index Europe=100) (7)
Turkey	35		63.5
Albania	22	70	95.9
Bulgaria	47	80	84.6
Yugoslavia	38	69	88.9
Roumania	48	69	67.4
U.S.S.R.	39		59.1
Poland	49	75	82.9
Finland	65	92	103.6
Greece	50	77	60.5
Hungary	78	87	96.2
Portugal	53	47	62.7
Spain	88	53	77.0
Ireland	93	171	160.2
Italy	73	69	107.5
France	174	109	105.0
Denmark	354	236	177.8
Sweden	146	118	132.8
Norway	116	173	133.1
Austria	134	153	109.6
Czechoslovakia	105	129	116.7
Germany	195	181	133.9
Switzerland	194	371	148.4
Netherlands	259	377	168.5
Belgium	220	283	176.9
United Kingdom	319[k]	193[k]	143.2

NOTES:

[a] includes solid and mineral fuels, electricity, wood and natural gases.
[b] expressed in dollars of average 1925/34 purchasing power. These figures are merely put forward as rough indications of orders of magnitude.
[c] agriculture only
[d] average of 1928 and 1934
[e] very approximate
[f] average of 1928 and 1931
[g] 1925-1927
[h] Great Britain only
[i] including Luxembourg
[k] England and Wales only

figures are 92 and 70. Pre-war per capita incomes ranged from $554 in the United States to $22 in Indonesia; expectation of life at birth from 65 in New Zealand to 27 in India; illiteracy from below 5 per 100 for many countries to 92 in Indonesia; calories from 3,421 in The Netherlands to 1,835 in Peru; annual net consumption per head of cotton, wool and rayon from 29.01 in the United States to 3.51 in Indonesia; energy consumed per day (horsepower per capita) from 37.6 in the United States to 0.3 in Bolivia; average yield of wheat from 45.4 bushels in The Netherlands to 6.1 in Palestine; physicians from 1 per 730 in the United States to 1 per 60,000 in Indonesia.

A rise of income waits upon development; and the latter subsumes increased use of power, machinery, and transportation. A necessary condition is improved health, education, and nutrition; and the resulting rise of income will raise health, expectation of life, nutritional standards, improve education further, and expand the use of power and machinery.

Indexes of Well-Being by Degree of Development, 1939
(Arithmetic Mean)

	I Developed	II Intermediate	III Underdeveloped
1. Per Capita Income	$461	$154	$41
2. Years of Expectation of Life at Birth	63	52*	40*
3. Tuberculosis Death Rate (Per 100,000 Population)	64	143	333
4. Per Cent Illiterate	<5	20	78
5. Calories, Daily Per Capita Food Supply (Mean)	3,040	2,760	2,150
6. Animal Proteins, Daily (Ounce)	1.6	0.9	0.3
7. Fats Daily (Ounce)	4.0	2.3	1.3
8. Net Annual Consumption Per Head of Cotton, Wool, Rayon (Pounds)	18.63	7.52	4.80
9. Energy Consumed Per Day (Horsepower Per Capita)	26.6	6.4	1.2
10. Industrial Investment Per Worker (Index = 100)	100	39	11
11. Annual Freights (Ton Miles Per Capita)	1,517	927	58
12. Motor Vehicles (Per 1,000 Population)	111	7	1
13. Telephones (Per 1,000 Population)	90	7	2
14. Physicians (Per 1,000 Population)	1.06	0.78	0.17
15. Teachers in Elementary Schools (Per 1,000 Population)	3.98	3.42	1.76
16. Yield of Wheat Per Acre (in Bushels)	29.3	19.3	16.1

* Limited coverage.
Source: Computed and arranged from State Department: *Point 4*, 1949, pp. 17, 86-109.

Lower Farm Labor Force

The extent to which industrialization of the underdeveloped regions of the world could increase production and real incomes in these regions

over the next fifty years may be roughly estimated from past experience. This experience has shown that both output per worker and average income rise as more of the available force is employed in industrial or other non-farm employment.[53] Further, the process of industrialization in countries as varied as the U.S.A., Sweden, Denmark, and Japan, has shown that a reduction of 20 percentage points in the proportion of workers engaged in agriculture represents about the average reduction attained in fifty years of development.[54]

Under strict Communist discipline, the U.S.S.R. attained a much higher rate of transfer in the inter-war period, with a reduction of about one percentage point a year over the thirteen years from 1926 to 1939.[55]

If we assume that the underdeveloped regions of eastern and southern Europe, Asia, Africa, and Central and South America, given full technical and financial assistance, can reduce the proportion of these workers in agriculture by 20 percentage points over the next half century, we can then estimate from the observed past relations of the urban-rural balance to income what the corresponding increases might be in their national income. The data now available[56] indicate that the proportion of the total workers in the various regions which are employed in agriculture, according to the most recent report for the countries reporting (generally 1939 or 1940 or 1946 to 1948), average about as follows:

Southern and Eastern Europe (excl. U. S. S. R.)	57%
Asia (excl. U. S. S. R.)	73%
Africa	70%
Latin America (excl. Argentina)	65%

The present population in these regions, the numbers economically active, and the numbers engaged in agriculture, forestry, and fishing, may be estimated as follows:

Estimated Population and Occupational Distribution in Underdeveloped Regions, 1950 (Millions)

Region	Total Population	Gainfully Employed*	Employed in Agriculture
Southern and Eastern Europe (excl. U.S.S.R.)	175	81	46
Asia (excl. U.S.S.R.)	1,260	540	394
Africa	190	72	50
Latin America (excl. Argentina)	145	55	36
Total	1,770	748	526

* Estimated from proportions of total population economically active in countries reporting. *UN Demographic Yearbook*, 1948, pp. 232-33.

On the basis of past growth in population per year, the future population may be estimated with some allowance for the effects of industrialization. It is assumed that in regions with low rates of growth, as in most of Asia, industrialization (and accompanying better health) may at first speed up population growth, but thereafter, and from the beginning elsewhere (as in Latin America), where population growth is already rapid, the annual rate of growth will fall gradually as industrialization raises living standards.[57] On this basis, total population in the underdeveloped regions may be estimated at selected years as follows:

Estimated Population, Underdeveloped Regions (Millions)

Region	1950	1960	1975	2000
Southern and Eastern Europe (excl. U.S.S.R.)	175	187	206	247
Asia (excl. U.S.S.R.)	1,260	1,384	1,570	1,855
Africa	190	213	252	315
Latin America (excl. Argentina)	145	174	212	260
Total	1,770	1,958	2,240	2,677

Assuming that a uniform reduction of 0.4 percentage points a year is made in the proportion of workers engaged in agriculture, the occupational distribution in these regions would fall as follows:

Estimated Proportion in Agriculture, of Gainfully Employed Workers, in Per Cent of All Workers

Region	1950	1960	1975	2000
Southern and Eastern Europe (excl. U.S.S.R.)	57	53	47	37
Asia	73	69	63	53
Africa	70	66	60	50
Latin America	65	61	55	45

With the estimated population growth, and assuming the proportion of workers gainfully employed remained the same in the regions (if anything, it might increase in those regions where it has previously been low), the numbers of workers to be employed in industries *other than agriculture* would increase as follows by 2000: Southern and Eastern Europe 38 million; Asia 219 million; Africa 37 million; Latin America 34 million; a total of 328 million.

Despite the relative decline, the absolute numbers in agriculture would continue increasing in Asia, Africa, and Latin America, and would still be rising slightly by the end of the century, as the total population continues to rise. Only in Southern and Eastern Europe would the actual number in agriculture decline, and even there, only slightly. Better

technical methods, with resultant higher yields per acre, a rise in land under cultivation or improvement of productivity through irrigation, drainage, and fertilization, would be necessary in order to increase agricultural output per capita. Except in portions of Africa and Latin America, and in limited regions of Asia, there would be only limited opportunity to achieve the striking gains in agricultural output per worker which the substitution of power-driven farm machinery for manpower has achieved.

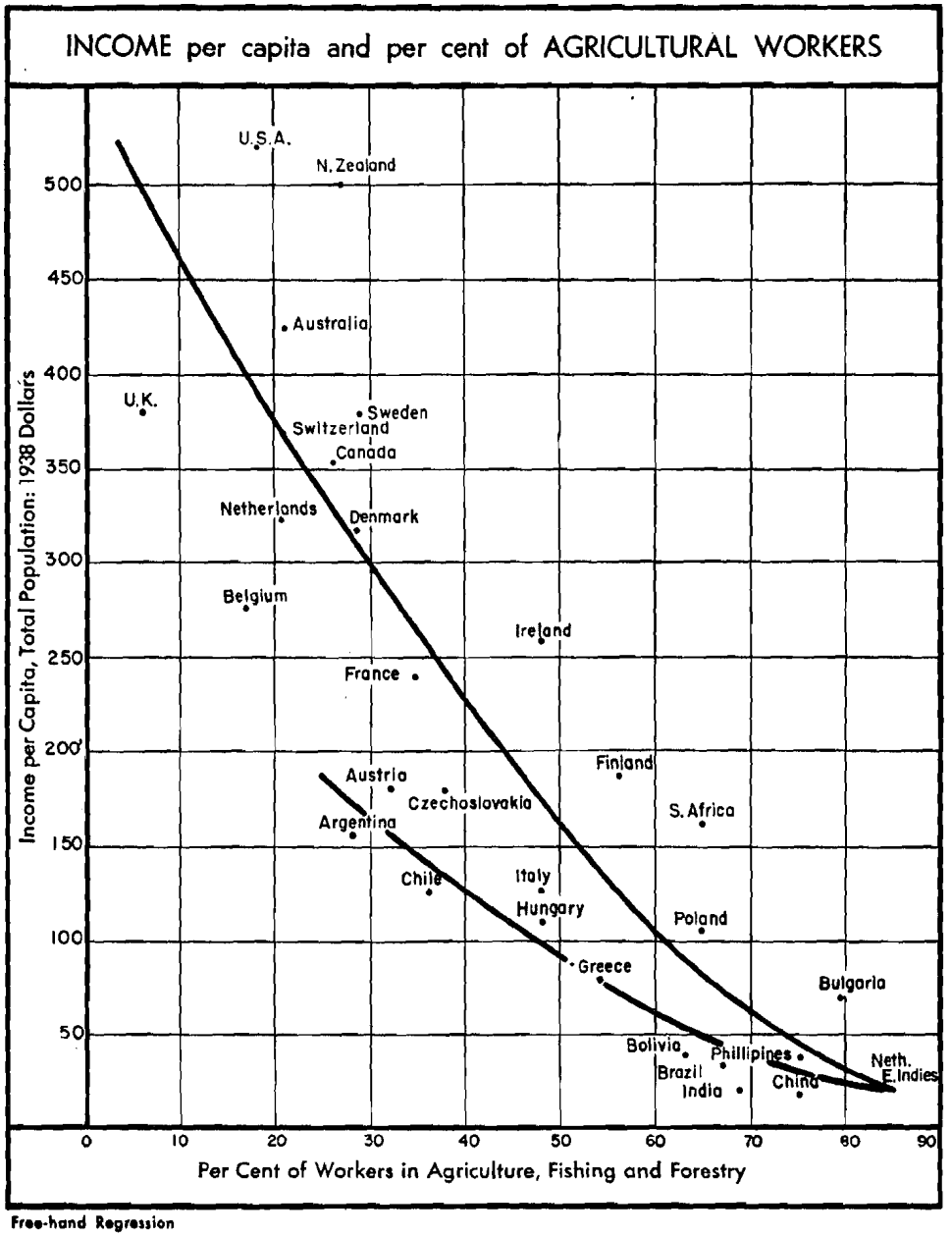
Effects on Income in the Underdeveloped Regions

We can turn now to the changes in income, both per capita and overall, which might be expected in the underdeveloped regions with this growth in industrialization. The experiences of countries which have industrialized show how greatly income per capita has increased as the proportion of workers in agriculture has fallen (or rather as the proportion in non-agricultural industries has risen). The average income per worker for 11 countries which have been industrialized increased greatly over a long pre-war period. (Chart omitted because of lack of space.) In each case the reduction of the proportion of workers in agriculture has coincided with an increase in the income produced per worker (measured in dollars of constant purchasing power). In addition, the general distribution of the changes is similar to that shown in a study by Colin Clark giving the relation for a much larger number of countries in the period 1925 to 1934. (Dr. Louis Bean fitted a regression curve to these data.) A somewhat similar relation was found by Stephen Raushenbush in a study for a group composed of low-income underdeveloped countries, and was the basis of his study in Number 5 of this series.[58]

More recent data, using 1938 incomes per capita of total population, and most recent occupational data (mostly about 1940), show a similar relation of income to agricultural employment (Chart 3). While one curve can be drawn in fitting the entire set of observations, the data appear to fall in two groups, with one of ample agricultural resources per capita or long development in industry, falling at a higher level, and another group, with less rich agricultural resources and more recent development in culture and resources, falling at a lower level.

The relationship of occupational distribution to income per capita in these less-favored regions may therefore be taken as a more conservative basis for estimating the prospective gain in income expected from the industrialization of the less developed regions—especially as these regions have but little opportunity to reduce their labor force in agriculture, and thus to mechanize and increase sharply the acres per man, as was done generally in Western Europe and in North America.

Chart 3

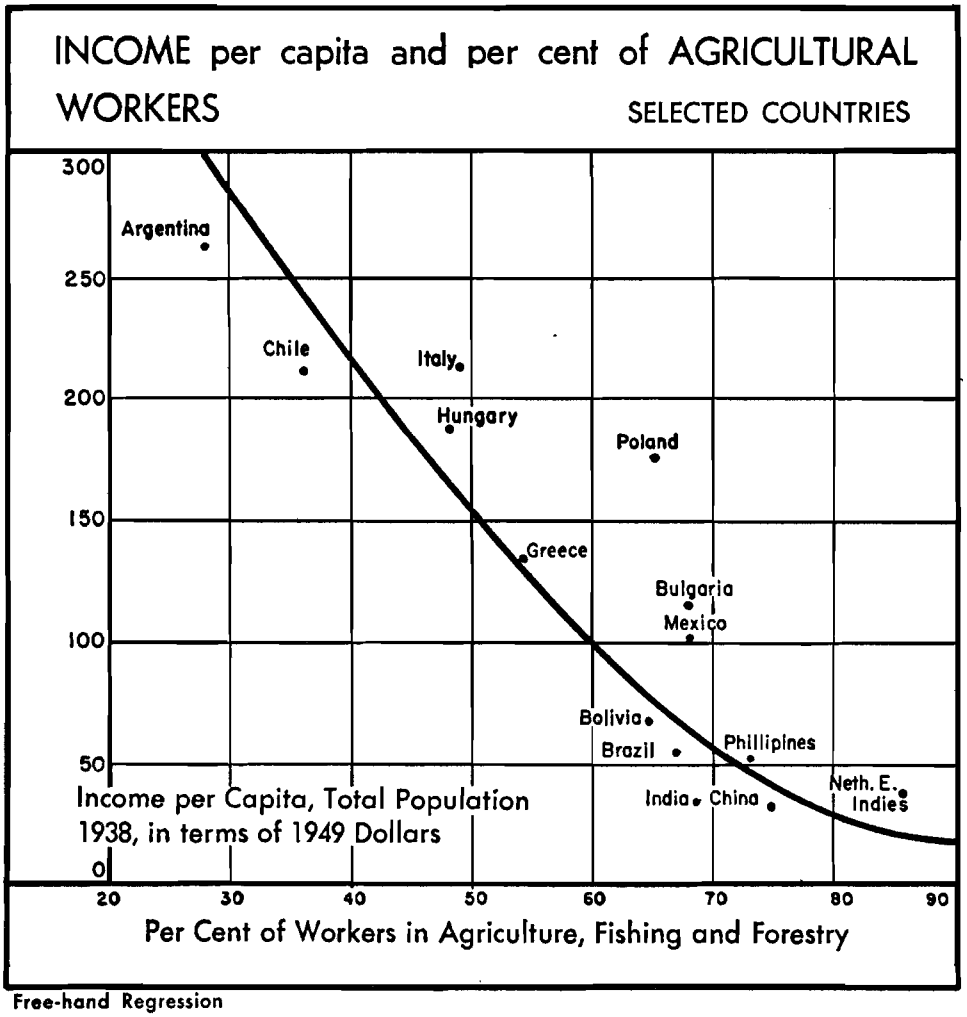


Free-hand Regression

The relation for these countries is seen more clearly in Chart 4. (South Africa is excluded, also, because of its exceptional deposits of precious minerals.) Here the incomes have been converted to 1949 dollars, to simplify later calculations.

Using the regression line fitted free-hand to the data in this chart, the possible effect of the progress in industrialization, already estimated, upon the income produced in the various regions may be estimated.

Chart 4



Free-hand Regression

Estimated Incomes per Capita, in 1949 Dollars				
Region	1950	1960	1975	2000
Southern and Eastern Europe	115	140	172	237
Asia	45	60	86	140
Africa	56	72	100	155
Latin America	76	95	150	217
Asia (revised)	36	48	69	112

Since the estimated 1950 income for Asia is one-third higher than the reported 1928 income for India and China (in 1949 dollars), and these two countries alone make up two-thirds of all Asia's population and the low Asiatic resources per capita, the estimates for Asia have been revised down to 80 per cent of those given by the regression line.

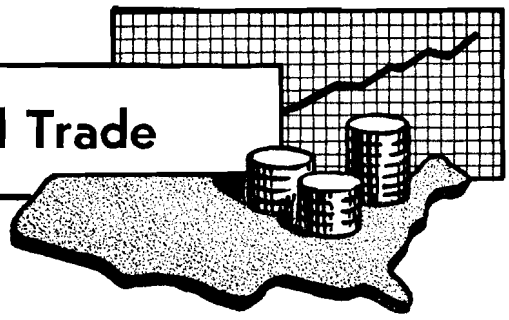
Using these estimated per capita incomes, and the population estimates shown earlier, the aggregate income in these regions may be:

Estimated Aggregate National Income Produced, in Present Underdeveloped Regions (Billions of 1949 Dollars)				
Region	1950	1960	1975	2000
Southern and Eastern Europe	20	26	35	59
Asia (revised)	45	66	108	208
Africa	11	15	25	49
Latin America	11	17	32	56
Total	87	124	200	372

While the population of all the present underdeveloped regions is estimated to increase by just over 50 per cent during the next 50 years, the total income produced per year would more than quadruple, increasing from a per capita average of just about 50 current dollars in 1950 to 139 dollars by 2000. It is clear why more could be saved then, and why, besides living better, the regions now underdeveloped could contribute more and more of the capital needed for their own development. It is also clear how, with their income increasing to these substantial levels as a result of industrialization and modernization, they could carry the interest charges on the foreign capital needed to finance the development, and could, *if required,* and *if expedient,* ultimately pay off the amortization charges on the capital invested earlier.

Part VIII

Development and Trade



Income and Trade

As income rises, trade tends to rise. It follows, therefore, that if development raises income, total world trade should rise. Both theory and history support this conclusion. Buying depends on the capacity to purchase. It is not surprising that in the pre-war the average person in the developed areas purchased $5.80 of United States exports, the intermediate areas $1.25, and the underdeveloped areas 70 cents.[59] Indeed, the effects of a rise of income in trade may be neutralized if, as incomes rise, trade restrictions are increased sufficiently.

That trade rises with income is a historical fact. Over long periods before World War II—150 years for the United States, 80 years for Sweden, 57 years for Japan, 37 years for Australia—for which information is available, there was a secular upward rise of income and imports. In general the relationship was close, though a stage is reached in the growth of income when imports begin to lag behind as consumers respond to rising incomes by spending disproportionately more on services.[60] Here are some figures that suggest the relationship:

Several Countries: Growth of Income, Manufacturing, and Imports
(Number of Times)

	Approximate Rise		
	National Income	Value Added by Manufacturing	Imports
United States, 1851-60 to 1926-30	22	43	14
Japan, 1893-97 to 1934-38	52	..	19
Canada, 1900 to 1929	4.5	8.1*	7.2
Australia, 1915 to 1938	2.6	3.2**	2.2

* Gross value of manufactures.
** Value of industrial production.
Source: Adapted from E. Staley, *World Economic Development*, pp. 138-9, 144.

Response of Manufactured Imports to Industrialization

In a classic study of the industrialization process, the League of

Nations found that with the growth of manufacturing in the major industrial nations, both exports and imports of manufactured commodities rose. In the years before 1929, the growth of trade was large and satisfactory; but not so after 1929.

Twelve Major Industrial Countries: Growth of Manufacturing and Trade in Manufacturing

	From 1891-95 (= 100) to 1926-29	From 1926-29 (= 100) to 1936-38
Manufacturing	326	133
Imports of Manufactured Goods	225	88
Exports of Manufactured Goods	230	88

Source: League of Nations: *Industrialization and Trade*, pp. 93, 95.

Even in the period 1891-95 to 1926-29, all countries did not expand their import trade of manufactures as much as might be expected from their increase of manufacturing and income. In particular, the growth of manufacturing imports for the United States, Japan and Italy was disappointing. The explanation for the United States was largely tariff policy; for Japan, the need of a large excess of exports of manufactured products in order to pay for necessary imports of *food and raw materials.*

In the period 1926-29 to 1936-38, the trade in manufactured goods was disappointing. The decline of 12 per cent in trade and the rise of 33 per cent in manufacturing output for the decade before the War should be noted.

The trade policies of the U.S.S.R., Germany, and the United Kingdom, three of the countries with the most disappointing response of imports of manufactures, largely explain the bad records of these countries in this period. Worldwide depression and restrictive trade policies account for the general lag in imports vis-a-vis output of manufactured products.[61]

Adjustments in Economic Structure

Why should trade in manufactured goods rise as manufacturing spreads to less developed countries? Or to put it another way—why should the United States expect an expansion in the output of manufactured goods despite the industrialization of under-developed areas?

The usual explanation is that the more advanced countries concentrate on the more highly developed manufactures (e. g., machine tools), and yield on the less developed (e. g., textiles). The underdeveloped areas generally cultivate such industries as textiles, beer, paper.

As the United States and Japan proceeded in their industrialization, they expanded their imports of manufactures and greatly expanded their imports of raw materials. They failed, however, to expand their imports of manufactures as much as their exports.

Rise of Value of Exports and Imports by Types, United States and Japan
(Number of Times)

	United States 1851-60 to 1926-30		Japan 1893-97 to 1934-38	
	Imports	Exports	Imports	Exports
Crude Materials	54	8	47	9
Semi-Manufactures	21	71	23	12
Crude Foodstuffs	15	20	7	11
Manufactured Foodstuffs	9	13		
Finished Manufactures	6	74	7	45

Source: Arranged from Staley, *op. cit.*, pp. 138-139.

Since trade grows with income, and the latter with industrialization, a rise of trade with industrialization might be expected. In 1938, the trade between 12 chief industrial countries and the rest of the world accounted for 65 per cent of the world's trade. Trade among these 12 countries equalled 24.3 per cent of the world's trade; and trade among the other countries only 10.7 per cent of the total. These figures point to the tendency for industrialization to encourage trade.[62]

Indeed, industrialization brings shifts in markets. The British, for example, increased their exports relatively to countries predominantly agricultural and mining, in the years 1876/80 to 1891-95, 1891-95 to 1911-1913, and 1876/80 to 1911/1913. To Central and Western Europe and the United States British exports in these years rose by 9, 84, and 100 per cent, respectively; to the rest of the world, predominantly agricultural and mining, the gains were 16, 137, and 175 per cent.[63] Again, from 1860 to 1937, British exports to Germany, France, Belgium, and the United States rose by one-half; to Latin America and the British Empire by 3 times; to all destinations, 2 times.[64] The gains of British exports to highly developed countries in Europe were even greater from 1854-57 to 1927-29: a rise of 4 times.[65]

These figures suggest that trade among industrialized nations rose, but also that the underdeveloped areas favored by increased sales to industrialized nations, became richer markets for the developed areas. The important point is, however, the total rise. In the years, 1901/1905 to 1926/29, 8 countries with 83 per cent of the world's manufacturing

in the nineteen twenties, expanded their net exports of manufactures from 1.8 to 5.8 billion dollars.[66]

As might be expected, there were important shifts in the types of exports. Thus from 1910 to 1938, the proportion of textiles in British export trade declined from 38 to 25 per cent of the total; of iron and steel and of coal, the proportion fell to some extent as a result of increased competition and technological changes. But exports of machinery, electrical appliances, vehicles, and chemicals rose from 14 to about 40 per cent of total exports.[67]

A. J. Brown is not, however, too optimistic concerning the increased market for equipment resulting from industrialization. He considers the Australian case, and estimates that the replacement of industrial imports by home industries would require imports of equipment of about one half the *annual* additional value of the home product in the first year. Depreciation and obsolescence would not greatly exceed 8 per cent of the values of manufacturers produced annually for the relevant light industries. The maintenance of plant and the demand for imported industrial materials, according to Brown, are small offsets against the reduction of imports resulting from increased manufacturing for the home market.[68]

This, of course, does not mean that the industrialized countries lose from industrialization, but rather suggests that they would not make up for their losses merely by exporting more equipment. They would, however, gain greatly from a greater diversification and specialization, and increased exchange of manufactured goods. Thus the United Kingdom's imports of (wholly or mainly) manufactured goods rose from 45 of exports of these items in 1921-25 to 66 per cent in 1936-39.[69]

An obvious point is that the growth of exports in response to the development abroad will be impeded if adequate measures are not taken to adapt the structure of industry to the changed situation. The demand for low grade manufactures (e. g., textiles) will suffer in the developed countries; and the demand for the more highly developed manufactures should rise. It may, therefore, be necessary to stimulate transfers from one type of industry to another. Adequate information, special aids to workers injured inclusive of unemployment insurance, transportation subsidies, succour to old industries in the areas adversely affected—all of these should help. But above all a high level of employment facilitates the transfers.

The British case suggests that all countries do not always easily adapt to development abroad. The rapid industrialization of Japan; the damage done by War; the growth of trade restrictions; the absence of

mobility resulting from various rigidities and worldwide depression—all of these retarded the British adaptation to the new structure of demands.

Unfortunately for the British, their export trade was disproportionately in commodities that were undergoing a secular decline in demand. Thus the world trade in some commodities expanded by 26-75 per cent; in others by more than 150 per cent. The British had 40 per cent of their manufactured exports in the first class (26-75 per cent); Germany, 25.2 per cent; and the United States, 16.1 per cent; but British exports in commodities of the second class (rise of 150 per cent or more) were but 4.3 per cent of the 80 per cent of her manufactured exports classified, the Germans had 4.5 per cent of 87.1 per cent in the category, and the United States 28.6 out of 84.5 per cent of their trade.[70]

Expected Trade

On the basis of an earlier estimate of expected per capita income in underdeveloped areas following the proposed investment programs, and on the basis of the *current* relation of trade and per capita income, we can now estimate trade on the basis of per capita income expected in 1960, 1975, and 2000.

Estimated Total Imports, Total Exports and Imports from the United States by All Underdeveloped Countries, 1950, 1960, 1975, 2000
(Billions of Dollars)

	Value in 1949 U. S. dollars				Index numbers of values*			
	1950	1960	1975	2000	1950	1960	1975	2000
Total Imports	16.8	24.9	40.3	82.9	100	148	239	493
Total exports	16.1	22.8	36.9	75.1	100	141	229	467
Imports from U.S.	5.3	7.8	12.3	19.8	100	147	230	377

* Percentages based on values before rounding.

This table reveals the large rise in the imports (493 in 2000 where 1950 = 100) of the underdeveloped areas, in exports (467), and in imports from the United States (374). Indeed, the figures for 2000 and even for 1975 are highly conjectural. In fact, the development program of itself will influence the amount of trade and its direction in a manner to make past relationships less significant. Over long periods there may also be significant changes in political and trade relations that may make income-trade relations of 1949 less applicable to later years. Nevertheless, the best possible guess that can be made is a striking rise in the trade of the underdeveloped areas and United States export

trade in response to the increase of income of underdeveloped countries associated with development.

Shortage of space prevents the presentation of several tables breaking up the results of the preceding tables according to regions. In general, the largest rise of imports (1950 = 100) is expected from Latin America (156 in 1960 and 636 in 2000) and the smallest from East and South Europe (139 and 345). Similarly, for exports. For Latin America the respective figures are 147 and 583; for East and South Europe, 133 and 327. For imports from the United States, the Latin American figures are 148 and 434; for East and South Europe, 117 and 226. Asia is close to the average with 153 and 371.

The Relation of Income and Imports

1. Trade in Relation to Per Capita National Income

Chart 5 shows the relation of imports to per capita income for the year 1949. The choice of countries is to some extent dictated by the availability of income data; but the 22 countries are a fair sample of countries with the lowest and highest incomes, include many underdeveloped countries, and vary widely in natural resources and the stage of industrialization. In order to eliminate the effects of recent trade restrictions, we adjusted 1928 trade to 1949 prices; and pre-war income had to be adjusted to 1949. In general, the regression curve drawn from the correlation data shows a good fit. There is indeed a close relation between income per capita and imports.

A similar study shows a high correlation between income per capita and *exports* (Chart 6). A third study (Chart 7) reveals a rising level of imports *from the United States* as incomes in these countries increase. Here it is necessary to draw two regression curves—one fitted to the cluster of points for the Latin American countries, more closely tied to the United States than the others, and one for other countries.

A final chart (Chart 8) shows the relation of imports of selected commodities for underdeveloped areas in relation to per capita income. In general, the commodities chosen are especially important for the United States export trade. These countries would expand their imports of machinery, cotton manufactures and iron and steel a maximum as their incomes rise. *All these charts underline the rise of trade with an increase of income over time: they infer these gains from the relation of trade and income for numerous countries at one particular time.*

2. Imports by Commodities in the Future

Finally, we insert

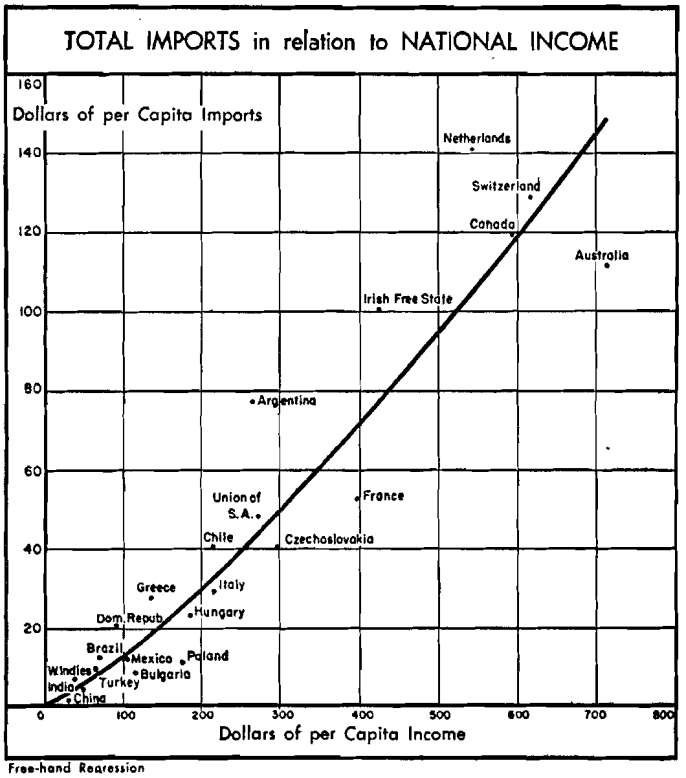
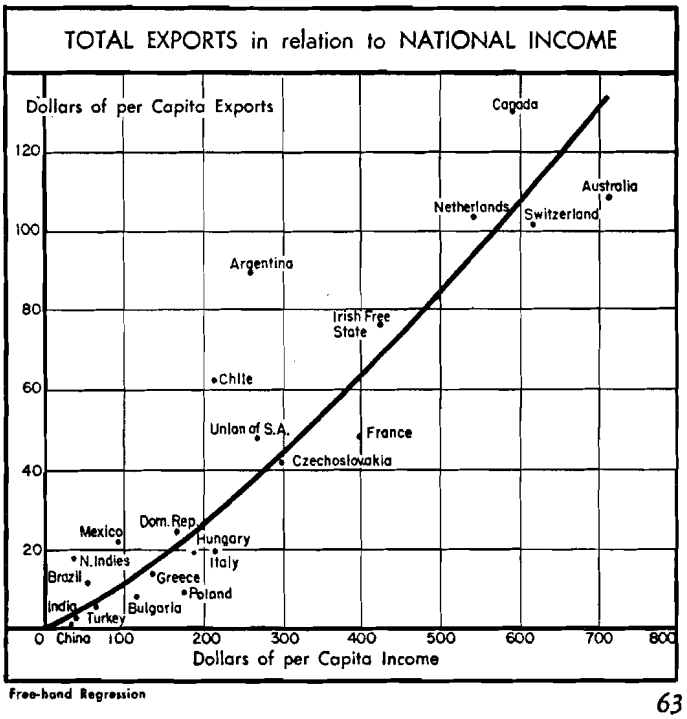


Chart 5

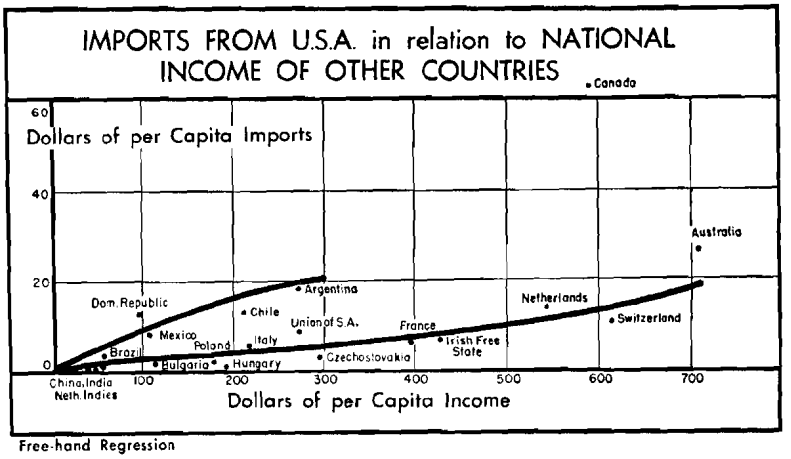
Free-hand Regression

Chart 6



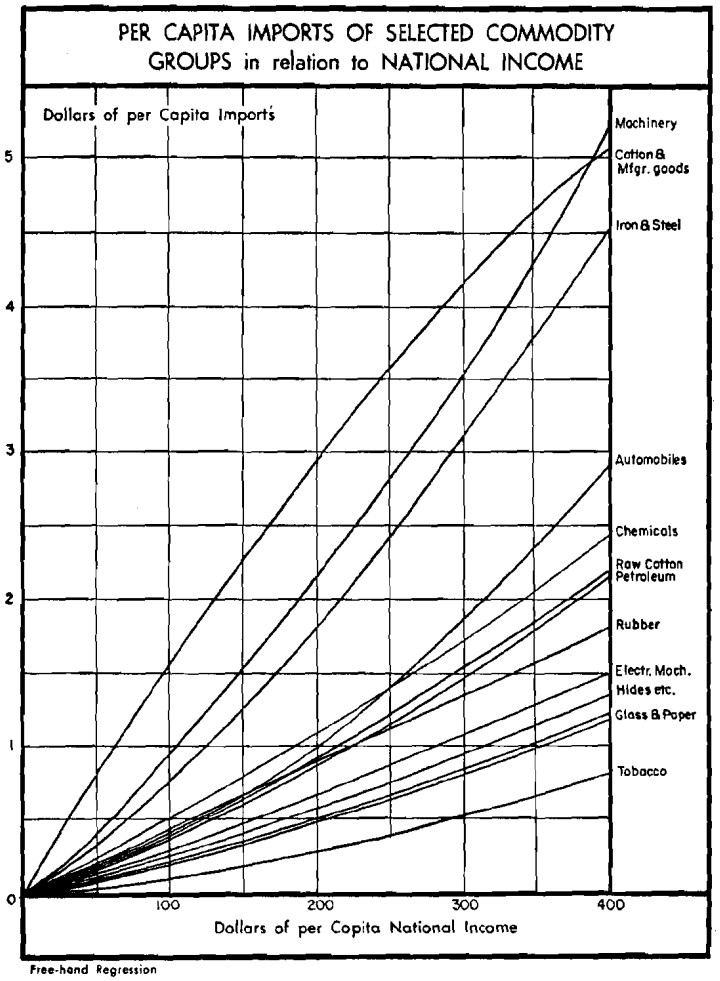
Free-hand Regression

Chart 7



Free-hand Regression

Chart 8



Free-hand Regression

in an appendix the *expected* commodity imports by underdeveloped countries for the years 1960, 1975, and 2000. (Appendix Table 1.) Here the results are more conjectural than overall imports, for changes in technology, in consuming habits, effects of the vast development programs and even political changes are going to have a profound effect on trade and consumption patterns. Yet the projection of income-trade relations of 1949 to later years is of some significance. By 1960, large differences begin to appear: 132 for copper and alloys and manufactures and 154 for paper and manufactures, where 1950 = 100. By 2000, the larger gains are in tobacco, raw or manufactured (572), iron and steel (535), and electrical machinery (526); the smallest for cotton and manufactures (407), hides, skins, etc. (457), chemicals (459). The pitfalls of such projections are suggested by the high figure for cotton and cotton manufactures. Is it not likely that these countries by the year 2000 will not be net importers of raw cotton and that they largely will be self-sufficient in most manufactured cotton goods? They may still, however, import some high-grade cotton goods.

The reader may be puzzled by these extraordinary gains of trade for underdeveloped areas or the large rise of exports by the United States to these countries. Yet if one glances backward, the changes are almost as startling. There have been surprising changes in the structure of our trade and in its geographical distribution. Note the relative rise of crude materials and the decline of finished manufactures in total United States trade.

First, consider the distribution by types of imports.

Percentage of Imports, U.S., 1821-2000

		Crude Materials	Crude Foodstuffs	Manufactured Foodstuffs	Semi-Manufactures	Finished Manufactures
	1. 1821	4.66	11.15	19.85	7.48	56.86
	2. 1871-75	16.12	14.12	20.07	13.56	36.13
	3. 1901-05	33.38	12.92	12.36	16.65	24.69
	4. 1936-40	33.08	13.10	14.16	26.94	18.72
Projected	5. 1960	33.5	16	10.5	22.5	17.5
	6. 2000	40	15	10	22.5	12.5

Source: 1-4, Basic data, *Statistical Abstract of the U. S.*

There are as striking changes in the geographical distribution of trade also. Especially to be noted are the losses of Europe in our markets and the gains of the underdeveloped continents.

Percentage of Total U. S. Imports, 1821-1945							
	North America North	North America South	South America	Europe	Asia	Oceania	Africa
1821	0.7	21.7	2.9	64.2	9.8	0.1	0.7
1871-75	5.9	16.6	11.0	55.6	9.7	0.7	0.6
1901-05	5.4	13.3	12.5	51.3	15.4	0.9	1.1
1936-40	14.8	9.9	13.6	25.3	31.6	1.5	3.3
1941-45	27.3	16.7	22.5	8.1	13.6	5.4	6.3

Source: Basic data, *Statistical Abstract of the United States.*

3. Projections of United States Income and Imports

Since the projections of United States trade in relation to United States income are of special interest, we have compared imports with projected income. With trade in the inter-war period in an abnormal state, these projections are of limited value. Yet they suggest the possibility of vast rises of import trade. They depend also on a projection of income which yields a figure of $1,000 billion by the year 2000. This is probably excessive, *inter alia,* because the population forecast is high. But this is not too serious because the per capita rise is the important matter.

Of course, this income may not be obtained in the absence of good management (e. g., failure to maintain full employment and preclude industrial strife), with the occurrence of atomic warfare, with the changes in political relations detrimental to international trade, with the failure to replenish our natural resources through conservation and the advance of chemistry. An estimate of 4.8 times the national income is obtained by continuing past trends in population growth (2.1 per cent annual growth from 1880 to 1930, 1.1 per cent from 1930 to 1950, and 0.83 per cent for the next 50 years). This yields a population of 212 millions by 2000. (The official 1946 estimate is, however, only 162 millions.) Here are the ingredients of the change over 50 years:

Increase in population ..... 41 %
Increase in population at work 10½%
Increase in output per worker .....203 %

The income in the year 2000 would then be (1.71) (1.125) (3.03) times the 1950 income.

On the basis of trend points in 1909, 1919, 1929, 1939, and 1949, United States imports are estimated as follows:

1960 .....12,250 ($ Billion)
1975 17,500
2000 30,000

Concluding Remarks

1. A Vigorous Program We support a program which may amount to from 5 to 7 billion dollars annually, with the United States providing two-thirds at first and substantially less later. These outlays will yield large returns in areas deficient in capital; and the resultant rise of income in these areas will provide Europe and the United States with export markets, thus making possible a tapering off of ERP and the saving of U. S. export industries from a too rapid and, hence, unhealthy readjustment. They will help sustain demand in this country, thus contributing towards higher tax yields, and through their effects on political tensions and the military situation, effect large savings in the military budget.

These outlays will of course follow and even accompany those proposed under Point 4, inclusive of ECA disbursements under Point 4. *Their timing and magnitude will of course also be influenced by political developments.*[71]

2. Local Savings This is one of the crucial problems raised. In the past, underdeveloped areas have relied in part on domestic savings, and their current plans assume substantial contributions from this source. Furthermore, in view of the large requirements and the large contributions by domestic factors of production, there is a strong case for mobilizing savings in the underdeveloped areas to finance local labor and material costs.

It is, therefore, appropriate that international agencies should broadcast the need of domestic savings, and suggest the manner of improving monetary and fiscal policy, the organization of the money and capital market, and improvement in providing subsidies and controls—all of these will increase the amount of savings and stimulate their effective use. In fact, the United Nations has even launched conferences for the purpose of inducing the required institutional changes.[72]

This is, however, far from saying that the condition for a vigorous foreign aid program should be X per cent contribution from domestic savings. A development program entails additional investment goods to be procured both at home and abroad and, therefore, more employment at home, or at least more industrial employment. Under these conditions, it is necessary to raise consumption, not reduce it, if motivation is to be adequate in the face of additional employment and (or) diversion

of workers from the farms. Therefore, part of the consumption and investment goods will have to come from abroad.

What proportion of the total capital required will come from domestic sources will depend upon the magnitude and rate of acceleration of the program, the normal level of income and savings of the underdeveloped country and the special measures that are practical for increasing savings. Obviously when *per capita* incomes are but 10-20 per cent of those in developed areas and savings a relatively small proportion of income, domestic savings per capita may be but 5 per cent of those in highly developed countries.[73] We take the position that the domestic contribution to total investment funds may well vary from 10 to 75 per cent. We have, therefore, not assumed large contributions out of domestic savings in the early years.

3. Mobilization of Foreign Resources It is obvious that the more effective use a country makes of its exports, the less it will have to depend upon foreign aid. Indeed, diversion of resources to export industries is one way of increasing resources for development. But here again the problem is one of how much can the country afford; for a diversion to exports is the equivalent of a rise in savings. Having increased exports, the authorities of the underdeveloped country would then have to preclude the proceeds from being dissipated for non-essential imports. Through tax policy and possibly controls they might assure an effective use of the proceeds.

One of the most important aspects of these problems is the terms of trade of the underdeveloped areas, that is, the amount of exports exchanged for a given amount of imports. In an official report, the United Nations probed deeply into this problem. Since the underdeveloped countries are primarily agricultural, and since over about a half century the prices of agricultural products have tended to fall vis-a-vis those of industrial products, the terms of trade of underdeveloped countries have deteriorated. These losses are greater even than suggested by relative price movements, because gains of productivity in the factory have greatly exceeded those on the farm. This means that despite *relative* rises in costs, underdeveloped countries give more of their goods for a given supply of imports.

Of course, deterioration varies from country to country. Thus, in 1948 the countries exporting raw materials suffered a serious setback. Much also depends on the type of commodities imported. In recent years prices of textiles have risen much more than machinery; hence countries importing the former in relatively large quantities especially suffer.

The following facts underline the importance of the terms of trade. The 1947 value of exports of underdeveloped countries was about $15 billion. An improvement in prices of 10 per cent (without a reduction of exports) would yield, then, $1.5 billion additional each year. Should the relative prices of imported manufactured goods revert to those of 1913, the underdeveloped countries might well obtain the equivalent of 2,000-3,000 billion dollars available annually for economic development. Another serious loss is the reduced purchasing power of the $10 billion of additional reserves accumulated by these countries in the war period. The United Nations Report also estimated the losses from the adverse movements of prices in the thirties to the underdeveloped countries at $3 billion yearly in current prices.[74]

Terms of trade are part of a more general problem. Exports of capital over a century have yielded dividends to the creditor countries not only in interest paid but also in much cheaper food and raw materials. As a result the advanced countries have been able to concentrate on industrial output and bring down unit costs. Such economies were not available to the underdeveloped areas; and in fact the advances in the latter's export industries did not spill over to the rest of the economy. In short, the gains of industrialization have accrued disproportionately to the developed countries.[75]

4. Timing Here is one of the most perplexing problems. The International Bank for Reconstruction and Development has emphasized time and again that the absorptive capacity of the underdeveloped areas is distinctly limited. But the I.B.R.D. is not alone in this viewpoint. The Food and Agricultural Organization (FAO) writes as follows:

> "Underdeveloped countries are not only poor in industries and resources, but usually have few well-trained professional personnel, engineers, scientists, agriculturists, teachers, professors, qualified to prepare or carry through effective development programs. Frequently their administrative apparatus is bureaucratic, cumbersome, and inefficient. The technical facts, maps, and statistics on which development plans might be based are often inaccurate or lacking. *Even their basic ability to maintain law and order is poor, and economic activity is subject to serious interruptions.* (My italics). Before such countries could develop or carry through effective plans and programs for their economic development, these shortcomings would need to be corrected." [76]

These misgivings point to the possibility of delay, and even more emphasize the importance of quick passage of the Point 4 legislation and disbursement of the funds to be appropriated. The first major contribu-

tion of Point 4 will be to help obtain statistics, establish priorities, train planners, help formulate plans, strengthen administration, suggest improvements in fiscal, monetary, and capital institutions and policies, and above all launch over-all educational and health programs.

This is aside from the concrete gains to be expected from specific Point 4 projects—for example, a possible gain of world livestock production by 25 per cent through selective breeding and the eradication of rinderpest, which kills 2 million cattle annually; the attack on insects, rodents, and fungi, which account for a loss in storage of 30 million tons a year, or 10 per cent of the world's crop of grains and legumes; eradication of malaria, which affects 300 million persons a year, accounts for 3 million deaths annually, and is responsible for a work loss of 20-40 days per person per year.[77]

But I repeat, Point 4 for our purposes is of importance primarily as a speed-up device which will make it possible to pour the billions into the underdeveloped areas within a reasonable time and thus improve standards of living and strengthen the resistance to totalitarian movements. These areas will not be able to absorb $5-7 billion annually by 1950; but a vigorous Point 4 program may find them prepared to absorb amounts of these proportions by 1955.

5. How Much? We have already said much about this problem. We emphasize a number of obvious points.

First, a prosperous America will have more to lend or give than a depressed America. Hence the importance of good management.

Second, a depressed America may find foreign aid a means of keeping demand and income up. Indeed, many may contend that foreign aid should be determined on the basis of higher objectives than the health of the American economy; but we do not understand how the problem can be entirely disassociated from its economic effects here.

Third, a substantial foreign aid program would mean a drain on American resources and particularly of current output of capital goods and technical services. Should activity continue at a high level, it may be necessary to shunt supplies from domestic markets, and possibly even to moderate the foreign aid program. Yet this is not likely to be a serious problem especially when the $4-5 billion involved are put against the $250 billion income, the $100 billion peak outlay for war, the excess capacity in the capital goods industry, the resultant savings on military outlay, and finally the likelihood that we shall not be able to sustain full employment year after year.

Fourth, much depends upon the terms under which the funds are made available. Obviously, the underdeveloped areas cannot borrow 20-year loans at 4 per cent plus a commission of 1 per cent in large amounts. The amortization payments and interest will soon exceed their capacity to repay, and especially if the creditor countries resist imports. *But we insist that amortization, however necessary for individual projects, is unnecessary and unwise on a national or area scale.* It would be just as injudicious as an amortization of the capital now invested in American industry—in fact, even less justifiable, because amortization of American investments does not raise the transfer problem.

It is, therefore, surprising to find the FAO discussing the financing problems in terms of amortization. Thus, according to the FAO, 10 years of advances would yield $40 billion to the underdeveloped countries, the charge after 10 years to be $3 billion a year. But should amortization be ruled out, the charge would be about half of that and about 5 per cent of their exports instead of 10 per cent.[78]

Fifth, and finally, the division of responsibility among government and private lenders is relevant. In official circles, there is much plumping for private financing. Yet the evidence does not point to large private participation. As the State Department shows, direct investments by the United States abroad rose only from $7.7 billion in 1929 to $11.3 billion in 1948—actually a decline in stable values. Indeed, new direct investments reached record levels of $650 and $800 million in 1947 and 1948, respectively, and reinvestment of earnings no less than $375 million *yearly* from 1945 to 1948. But petroleum accounts for a large part of the direct investments in 1947 and 1948, and these investments are not likely to be repeated. From July, 1945 to December, 1948, total international and colonial commitments of funds accounted for $33.8 billion; private investment funds, for $2.6 billion ($1.8 billion from the United States and Canada), or less than 8 per cent of the total.[79]

It is not even clear that private funds would be forthcoming if the additional risks of foreign lending were not present. Readers need not be reminded what a small contribution outside capital financing has made to the large absorption of capital by American business in the last 10 or even 5 years.

In accordance with the principles of a liberal economic society, the United States Government in particular harps upon the need of relying upon private funds. But is the case clear even if the funds were available? Private financing means relatively high rates and pressure for amortization over a relatively brief period. This is well suggested by the high rates charged in the inter-war periods, rates so high as to greatly

increase the danger of a transfer crisis. Thus the yield of new foreign bonds floated in the United States was 6.9 per cent in 1919-23, 6.4 per cent in 1924-28, and 5.3 per cent in 1929-31.[80] Private financing means concentration on *paying* projects, not on over-all development plans or the financing of non-commercial development (e. g., education, sanitary improvements). It means concentration on the profitability of individual projects and neglect of the over-all effects on foreign income, on political tensions, on United States and Western European trade, on the taxes and outlays of the federal government. Since the over-all effects upon the nation are of such great significance, the case for public financing is overwhelming.

This is all the more true since there seems to be little chance for private funds being available in adequate amounts. Indeed, we should encourage private financing where the funds are available and productive use can be made of them. It might help to provide "insurance" against special risks, though in view of the non-actuarial aspects of the risks (e. g., revolution, introduction of exchange control) insurance is not the proper term. When guarantees against losses are introduced, the costs of foreign financing may soar; and besides the government would now become involved to a degree which might easily be concealed and misunderstood.

Finally, I repeat, a vigorous foreign aid program is likely to yield large dividends of a non-economic nature; but in addition it is likely to be a necessary condition for a prosperous world and a prosperous America.

Footnotes

[1] *National Resources Policy:* Hearings before Senate Committee on Interior and Insular Affairs, 1949, p. 388 (Chart 58).

[2] J. S. Simmons, *Public Health in the World Today,* Harvard University Press, 1949, pp. 3-4.

[3] See for example, *United Nations, Methods of Financing Economic Development in Underdeveloped Countries,* 1949, Chapter I, pp. 92-94, 115-122; and State Department, *Point 4,* pp. 25-27, 39-40.

[4] *Third Annual Report of International Bank for Reconstruction and Development, 1947-48,* p. 13. Indeed, the Bank emphasizes the unavailability of mature plans and stresses the criterion of capacity to repay.

[5] *Methods of Financing Foreign Economic Development in Underdeveloped Countries,* p. 64.

[6] See R. Hinshaw, "Foreign Investment and American Employment," *American Economic Review,* May, 1946, pp. 666-67.

[7] Cf. unpublished paper of J. H. Adler, *"The Dollar Gap and American Foreign Economic Policy Objectives,"* December 15, 1949.

[8] United Nations, *World Economic Report, 1948,* 1949, pp. 63-65.

[9] A fairly skeptical position is taken by Buchanan and Lutz (*Rebuilding the World Economy*, 1947, especially Chs. 9, 10) and the *Reports of the International Bank for Reconstruction and Development.*

[10] On the population problem, see especially: State Department, *Point 4*, p. 9; Buchanan and Lutz, *op. cit.*, pp. 201-204; E. Staley, *World Economic Development*, 1944, Ch. 13.

[11] Economic Commission for Europe, *Potentialities for Increased Trade and Accelerated Industrial Development in Europe* (Mimeographed), August, 1948, pp. 22-23 and Table 4.

[12] *National Resources Policy*, Hearings before Senate Committee on Interior and Insular Affairs, 1949, pp. 6, 10.

[13] For facts in this section see especially: *Investigation of National Resoutces*, Hearings before the Senate Committee on Public Lands (1947), pp. 38, 179-80; J. A. Krug, *National Resources and Foreign Aid* (1947), pp. 11-14; *National Resources Policy*, pp. 388-94; Twentieth Century Fund, *America's Needs and Resources* (1947), pp. 574-79, 588, 590; *Statistical Abstract* (1947), p. 730; *Final Report on Foreign Aid*, of the House Committee on Foreign Aid, 1948, pp. 577, 868-83; Seymour E. Harris, Ed., *Saving American Capitalism*, 1948, pp. 97-107.

[14] European Recovery Program, *Report of the ECA—Commerce Mission*, October, 1949, p. 42. Errors and omissions equal $4.4 billion, and thus explain the excess of contributions over the world's deficit vis-a-vis the United States.

[15] *The President's Budget Message for 1950*, p. M 15; also see my *European Recovery Program*, Harvard University Press, 1948.

[16] *Survey of Current Business, December*, 1949, p. 3.

[17] W. Salant, *The Domestic Effects of Capital Exports under the Point Four Program*, December, 1949 (unpublished). (Calculations from *The Economic Report of the President*, January, 1950.) C. N. Buchanan, *International Investment and Domestic Welfare*, 1945, especially Chapter 9. Dr. Buchanan concludes that foreign investment cannot make an important contribution to full employment. He bases his conclusions in part on the greater effects of an equivalent outlay on domestic investment, and he assumes that the amounts advanced will be small. At this point he also seems to leave out of account the multiplier effects.

[18] I am indebted to the International Monetary Fund (IMF) for these charts. The IMF seems to interpret ECA broadly here; for only by including exports to occupied areas, the Dept. of Agriculture shows a ratio of ¾ of all exports for these official exports.

[19] *Organization of European Economic Cooperation*, I, p. 54.

[20] Unpublished study of IMF, *U. S. Foreign Trade in 1948 and First Four Months of 1949*, p. 14.

[21] *Economic Report of the President*, January, 1950, p. 53; and the Department of State, *Point 4* (Revised), December, 1949, pp. 43, 47.

[22] In C. Kindleberger, *Dollar Shortage*, Chapter 3, the reader will find an excellent summary of elasticities. (To be published).

[23] *Report of the ECA—Commerce Mission*, pp. 9-14.

[24] *Ibid.*, pp. 99-104.

[25] *Ibid.*, pp. 30, 36.

[26] Economic Commission for Europe, *Economic Survey of Europe in 1948*, 1949, pp. 220-21.

[27] The next few paragraphs are based on a letter to the *New York Times*, December 18, 1949.

[28] In 1930-33, the average rate of duty on dutiable imports was 52.8 per cent; on all imports, 17.7 per cent; in 1947, 15.3 and 6 per cent, respectively. Besides a reduction of tariff will frequently raise the rewards of the seller rather than cut prices to consumers. See U. S. Tariff Commission, *Operations of the Trade Agreements Program*, June, 1934, to April, 1948, Part I, p. 19.

[29] *Economic Survey of Europe in 1948*, p. 218.

[30] *Ibid.*, pp. 7, 107-108.

[31] The small response of imports to a rise of income since 1939 should not be considered typical. In part the explanation is war and postwar economic difficulties in Europe and Asia. But even in the inter-war period, the association of imports and income was neither high nor encouraging. See especially C. Kindleberger, *Dollar Shortage*, Ch. 3 (To be published).

[32] Economic Cooperation Administration, *Report of the ECA—Commerce Mission*, October, 1949, p. 53.

[33] Cp. 29 *supra*—Table XVI.

[34] *Interim Report on the European Recovery Program*, December, 1948, pp. 68-69.

[35] *Economic Survey of Europe in 1948*, pp. 66-67.

[36] OEEC, *Interim Report of the ERP*, I, December, 1948, p. 51.

[37] *Ibid.*, pp. 60, 74-75.

[38] *Ibid.*, pp. 50-55.

[39] H. Mendershausen, *Fitting Germany into a Network of Trade*, Mimeographed, December, 1949, p. III. Also see H. Mendershausen, "Future Foreign Financing," *Review of Economics and Statistics*, November, 1949, pp. 274-79.

[40] H. Mendershausen, "Future Foreign Financing," *Review of Economics and Statistics*, November, 1949, pp. 274-79.

[41] *Interim Report of the ERP*, II, pp. 909-913; and U.N., *Methods of Financing Economic Development in Underdeveloped Areas*, p. 69.

[42] *Ibid.*, p. 81; and C. Kindleberger, *Dollar Shortage* (To be published), Chapter IV.

[43] H. Mendershausen, *op. cit.*, p. 272. Also see U. S. Department of Commerce, *The United States in the World Economy*, last table, and *Foreign Assets and Liabilities of the United States and Its Balance of International Transactions*, Senate Committee on Finance, 1948, pp. 144-146.

[44] FAO, *Report on International Investment and Financial Facilities*, June, 1949; H. Mendershausen, *op. cit.*, pp. 268-72; U.N., *Economic Development in Selected Countries*, October, 1947; *Report of the Joint Brazil-United States Technical Commission*, Rio de Janeiro, Brazil, February, 1949, esp. Ch. XII.

[45] E. Staley, *World Economic Development*, Montreal, 1944 (International Labour Office), pp. 70-79.

[46] M. Ezekiel, *Towards World Prosperity*, 1947, pp. 25-26; N. S. Buchanan and F. A. Lutz, *Rebuilding the World Economy*, pp. 204-205; *Economic Concentration and World War II*, Senate Doc. No. 206, 1946, pp. 38, 41; and *The Economic Report of the President*, January, 1950, p. 151.

[47] FAO, *op. cit.*, pp. 17-19.

[48] Messrs. Hinshaw, Mikesell, Polak, Salant, and Kindleberger have all thrown much light on these problems. (The last two in unpublished manuscripts, cited earlier.)

[49] Cf. L. Bean, *International Industrialization and Per Capita Income;* National Bureau of Economic Research, *Studies in Income and Wealth*, 8, 1946, pp. 123, 141-43.

[50] Economic Commission for Europe, Ad Hoc Committee on Industrial Development and Trade, *Potentialities for Increased Trade and Accelerated Industrial Development in Europe*, 1948, Table 4.

[51] League of Nations, *Industrialization and Foreign Trade*, 1945, pp. 55-59.

[52] The Department of State, *Point 4*, p. 87.

[53] L. Bean, *op. cit.;* also see M. Ezekiel, *Towards World Prosperity*, 1947, pp. 14-29.

[54] *Report of the FAO Mission for Greece,* p. 162, Table 5, Food and Agriculture Organization of the U. N., Washington, D. C., 1947. In other countries, already more heavily industrialized or where the pace of industrialization has been less intense, the rate of shift has been less rapid.

[55] *Food and Agricultural Statistics,* Vol. II, No. 5, Food and Agriculture Organization of the U. N., May, 1948, p. 22.

[56] *UN Demographic Yearbook,* 1948, pp. 230-31, 234-51, and *Food and Agricultural Statistics,* May, 1948, p. 77, plus rough estimates for missing countries.

[57] Frank W. Notestein, *The Long View, or Food for the World,* Theodore A. Schultz, Editor, University of Chicago Press, 1945, pp. 36-57.

[58] Stephen Raushenbush, *Economic Consideration in Conservation and Development,* Paper at UN Scientific Conference on the Conservation and Utilization of Resources, UN Document E/Conf. 7/Plan/W. 29, 8 Aug. 1949. See also his *People, Food and Machines,* Number 5 in this series of publications.

[59] State Department, *Point 4,* p. 16.

[60] E. Staley, *World Economic Development,* 1944, pp. 127-45.

[61] League of Nations, *Industrialization and Foreign Trade,* pp. 87-97, 107.

[62] A. J. Brown, *Industrialization and World Trade,* 1943, p. 57.

[63] League of Nations, *Industrialization and Foreign Trade,* p. 107.

[64] A. J. Brown, *op. cit.,* p. 60.

[65] E. Staley, *op. cit.,* p. 146.

[66] League of Nations, *op. cit.,* p. 101.

[67] A. J. Brown, *op. cit.,* pp. 59-60.

[68] *Ibid.,* pp. 37-39.

[69] E. Staley, *op. cit.,* p. 154.

[70] *Ibid.,* pp. 150-1.

[71] On ECA outlays, Harry B. Price, Chief of the Overseas Development Board of the ECA, writes me as follows:

"The ECA is concerned with the giving of assistance for economic development to the dependent overseas territories of the Marshall Plan countries of Europe, in other words, the colonial areas. Within the total ECA budget for the current fiscal year, four sources of funds can be drawn upon for assistance to these particular underdeveloped areas, namely: (1) regular program funds for the ECA participating countries, which can be used by the metropolitan countries concerned, with ECA approval, for the procurement of supplies and equipment for the dependent overseas territories; (2) funds earmarked specifically for the procurement of deficiency materials; (3) funds, totaling between $3.0 and $3.5 million for technical assistance to these territories; and (4) a special reserve tentatively earmarked at $20 million, for developmental projects within the colonies, for which ECA is beginning to receive applications from the Marshall Plan countries concerned. The last-mentioned fund, with which this branch of ECA is particularly concerned, will be used according to criteria designed to maximize the beneficial effects of such aid upon both productivity and the economic welfare of the peoples in the territories concerned. In general, it may be said that ECA assistance is being and will be closely related to development plans already in existence, for which the ECA participating countries are, of course, assuming by far the major responsibility. We are particularly concerned with the dollar requirements of basic development projects—such as railways, roads, electric power or irrigation—which are most likely to contribute, according to the needs of specific areas, to an acceleration of further economic development and which will make it more possible and practicable for private investment to come into the picture, and to help carry that part of the load which is beyond the proper scope of public financing."

[12] On the issue of domestic savings, see especially U. N., *Methods of Financing Economic Development in Underdeveloped Countries,* especially Chapter I, pp. 72-81, 92-94; U. N., Economic Development of Underdeveloped Countries, *Methods of Increasing Domestic Savings,* etc. General E/1562, December 16, 1949 (Mimeographed), especially Parts I and II; State Department, *Point 4,* p. 39.

[13] *Methods of Financing Economic Development in Underdeveloped Countries,* p. 73.

[14] U. N., *Relative Prices of Exports and Imports of Underdeveloped Countries,* December, 1949, pp. 7-20, 54-87, 121-27.

[15] See especially paper by H. Singer, of the United Nations, before the American Economic Association, in December, 1949.

[16] *Methods of Financing Economic Development in Underdeveloped Countries,* p. 76.

[17] Especially U. N., *Technical Assistance for Economic Development,* May 1949, pp. 22-29, 54-55.

[18] *Methods of Financing Economic Development in Underdeveloped Countries,* pp. 52-53.

[19] *Ibid.,* p. 64; and State Department, *Point 4,* pp. 44-49.

[20] U. N., *International Capital Movements during the Inter-War Period,* October, 1949, pp. 56-60.

Appendix Table

Probable Imports of Selected Commodity Groups by All Underdeveloped Countries, 1950, 1960, 1975, 2000 (Billions of Dollars)

Commodity Group	Value in 1949 U. S. dollars				Index number of values			
	1950	1960	1975	2000	1950	1960	1975	2000
Cotton, raw	533	790	1,301	2,596	100	148	244	487
Cotton and manufactures	2,262	3,228	5,098	9,214	100	143	225	407
Tobacco, raw and manufactured	126	183	317	723	100	145	251	572
Hides, skins, leather and manufactures	354	485	827	1,621	100	137	233	457
Rubber and manufactures	286	430	733	1,332	100	150	256	465
Paper and manufactures	260	401	691	1,371	100	154	265	526
Glass and glassware	137	189	349	686	100	138	228	500
Petroleum and products	471	715	1,229	2,419	100	152	261	520
Chemicals	696	1,033	1,654	3,302	100	148	237	459
Copper and alloys and manufactures	236	311	541	1,089	100	132	229	462
Iron and steel	942	1,411	2,500	5,037	100	150	260	535
Machinery, all kinds	1,235	1,791	3,079	6,104	100	145	249	494
Electrical machinery	350	513	912	1,804	100	147	261	526
Automobiles and parts	567	827	1,367	2,567	100	146	241	452

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