

**Part One**

**GROWTH, DISEQUILIBRIUM AND DISPARITIES:  
INTERPRETATION OF THE PROCESS OF ECONOMIC  
DEVELOPMENT**



## CHAPTER I

### THE SPREAD OF TECHNICAL PROGRESS IN LATIN AMERICA AND THE PROBLEMS IT INVOLVES

#### 1. A NEW STAGE IN THE SPREAD OF TECHNICAL PROGRESS

The spread of technical progress from the countries where it had its source to the rest of the world has, from the point of view of each generation, been relatively slow and irregular. During the long period which elapsed between the industrial revolution and the First World War, the new methods of production in which technique has constantly found its expression have reached only a small proportion of the world's population.

The movement began in the United Kingdom, continued in varying degrees of intensity in Europe, received an extraordinary impulse in the United States and finally reached Japan, which strove to rapidly assimilate Western methods of production. Thus the great industrial centres of the world grew up, while the vast and heterogeneous peripheral areas of the new system shared only to a slight extent in the improvement of productivity.

In these peripheral areas, technical progress only affected small sectors of the vast population as it usually only penetrated where it was needed to produce foodstuffs and raw materials at low cost for delivery to the great industrial centres.

If this economic pattern which the world had developed before the First World War could have been considered the ideal system of the division of labour, any departure from its principles would, of course, have had to be considered as a deviation from the economy's normal way of functioning. However, there could be no sound, scientific reason for believing that this was a final pattern. All that happened in that period was that the world economy passed through a singularly important stage in its growth, but in spite of the significance of its effects, it could hardly be called a final stage since, to a certain extent, it had left untouched the vast peripheral area with its enormous potential capacity for assimilating technical progress so as to raise the very inadequate standard of living of the great masses of its population.

Carefully considered, the economic development of the peripheral countries is one more stage in the world-wide spread of the new forms of productive technique, or, if preferred, in the organic development of world economy. A few early signs of this new stage had already appeared

in the primary producer countries before the First World War. But it was the war, with the consequent difficulties of maintaining imports, which revealed the industrial possibilities of those countries, while the great economic depression of the 1930's strengthened the conviction that those possibilities had to be used in order to offset, by means of internal development, the manifest failure of the external incentive which until then had stimulated Latin-American economy; this conviction was confirmed during the Second World War, when Latin-American industry, with all its improvisations and difficulties, nevertheless became a source of employment and of consumption for a large and increasing part of the population.

Latin America has, therefore, entered a new stage in the world-wide spread of technique, though technical methods are still far from having been assimilated completely in primary production, for, as explained above, new production methods tend to be adopted in activities connected in one way or another with the exportation of foodstuffs and raw materials rather than in other activities. In the performance of this function as a primary producer which is actually the function of Latin America, there was from the beginning a strict selection of aptitudes. Vast regions were coupled to the world economic system while others, no less large and generally more densely populated ones, up to the present time, remained outside the system. Hence development was very uneven. New and fertile lands, which became accessible during the second half of the last century through the development of transport, acquired human material, technique and capital with which to undertake agricultural and mineral production to satisfy the ever-growing European demand, whereas the impressive process of the extension of capitalist technique and economy by-passed other lands which had been cultivated for ages and which had supported their populations for centuries but which suffered from a low level of productivity or difficulties of access. Thus in Latin America there remain extensive regions, with relatively large populations, in which the methods of working the land, and consequently the standard of living of the people, are essentially pre-capitalist. Accordingly, economic development in these countries requires first and foremost technical progress in agriculture and other related activities, including means of communication.

Experience has repeatedly shown, however, that as modern technique increases productivity, a surplus of labour, no longer needed by agriculture, is created. It then becomes the task of industry and other activities to absorb this labour productively. Hence agricultural improvement and industrial development are two aspects of the problem of economic development. One need only consider the large number of people engaged in agriculture in Latin America, with the exception of a few countries, to realize the magnitude of this problem and the vast effort which will be necessary to solve it.

Through the force of circumstances, with the spread of technical progress an increasing proportion of the economically active population of Latin America, as part of the peripheral area, will be diverted from agriculture towards industry and other urban occupations. Yet, that would not constitute a full solution unless certain pre-capitalist or semi-capitalist methods of production (still used by a large part of the population) were to evolve towards methods characterized by a high level of capitalization per man and high productivity. Though this is indeed very important, the problem of the economic development of Latin America cannot be limited to these terms, for to do so would be to ignore other fundamental aspects. This is not surprising, for though there are certain common denominators in the appearance of the problem in the different countries, there are also specific differences which must be considered lest unwarranted generalizations are arrived at.

## 2. TWO DIFFERENT CASES OF ECONOMIC DEVELOPMENT

First of all, as already stated, one of these differences lies in the actual manner in which technical progress penetrates. In order to illustrate this, let us consider two extreme cases: Mexico and Argentina. Argentina is a peripheral country into whose lands, only recently opened up for cultivation, the technique of capitalist production has been penetrating deeply since the second half of the nineteenth century. Except for a few centres, there was no long-established agriculture and the land, till then deserted or sparsely populated, attracted large numbers of immigrants and capital. The population grew in strict relation to the technical and economic development, which in turn was due to a strong and continuous stimulation from abroad. The growth of the Argentine economy depended almost exclusively upon that external stimulation until the beginning of the world economic crisis.

When this type of economic and demographic growth began in Argentina, Mexico was already relatively well settled, with an agricultural tradition; its land, already exhausted by the pressure of a constantly increasing population, could not compete with the new agricultural areas. There was no incentive to bring new methods from outside to Mexican agriculture, which thus tended to keep its pre-capitalist ways with their very low coefficient of productivity per man. Mexico, therefore, entered the world system not by means of its age-old subsistence agriculture, but by means of the working of mineral resources, and the exportation of Yucatán henequen, especially the former, which in time was to become more important than the extraction of precious metals of legendary fame. But the working of mineral resources and the activities which are directly or indirectly related to it only absorb a very small proportion of the Mexican population. A large part remains stationary in long-established ways of life and activities and with no direct connexion with the world market, so that these sectors of the population have not been strongly influ-

enced by the external stimulus of development. Despite the recent addition of other strong internal stimuli, these groups of the population continue to give Mexico's economy the features typical of under-developed areas. In fact, 65 per cent of the gainfully employed population is still engaged in agriculture, which represents barely 30 per cent of the value of Mexican exports, while in Argentina, where exports are still essentially agricultural, only 36 per cent of the economically active population works on the land.

Consequently the problem of economic development which Mexico is making such great efforts to solve consists of replacing the old agriculture with its low productivity by a new one with a higher yield per man. Then the surplus of labour already mentioned occurs for which a place must also be found within the sphere of capitalist technique. Moreover, if it is borne in mind that the population growth of Mexico is among the most vigorous, the extent of the problem is easily realized.

The case of Argentina is different. It is not that of a large population in a pre-capitalist state, nor of one growing at a rate comparable to that of Mexico, though technique is certainly far from having reached a satisfactory state in Argentina, even in agriculture, and there is therefore room for considerable improvement. The problem of economic growth here lies fundamentally in the considerable weakening of the external impulse, which had exerted such a strong influence until the beginning of the great world crisis. The ever-increasing world demand for its exports during this first stage of Argentine development was not only the means of absorbing the then very rapid natural growth of the population, but also of attracting and settling there large masses of European immigrants. During the 1930's, however, the volume of Argentine exports, instead of continuing to rise, tended actually to decline, so that if after that time it was possible to absorb the population increase and improve productivity, it was because the weakened external stimulus became subsidiary to the deliberate one of industrialization.

The common denominator referred to above lies precisely in the conditions to which industrialization is leading. Exports are not sufficient to absorb the increase in population, still less the surplus, real or potential, of the economically active population engaged in agriculture or other activities. This fact thus constitutes a feature common to the economic development of Mexico, Argentina, and the other Latin-American countries. Not even Venezuela can be counted an exception, despite the extensive increase in its exports, as will be explained later.

### 3. VARIABLES IN THE PROBLEM OF ECONOMIC DEVELOPMENT

It is clear that the problem varies from country to country according to a number of factors, of which we shall at this point mention those directly relevant. If productivity is to be improved, then, even where the natural resources exist and the population is capable of assimilating

Table 1

LATIN AMERICA: INCREASE OF TOTAL POPULATION, GAINFULLY EMPLOYED POPULATION BY GROUPS AND *per capita* EXPORTS IN DOLLARS

Countries	Increase of population 1937-49 per cent per annum	Percentage of the total gainfully employed population		Value of exports in US dollars per capita	
		engaged in agricultural activities	engaged in primary production	1935-39	1945-48
Argentina	15.4	36	..	38.5	79.1
Bolivia	18.8	..	..	10.3	18.7
Brazil	23.3	67	70.2	7.9	16.7
Chile	20.7	36	41.0	29.8	47.0
Colombia	23.0	74	75.6	9.1	21.3
Costa Rica	31.8	..	..	14.8	26.1
Cuba	11.7	41	41.8	34.5	118.8
Dominican Republic	36.3	..	..	10.2	32.3
Ecuador	18.5	..	..	4.4	11.3
El Salvador	24.1	..	..	10.7	16.1
Guatemala	30.6	..	..	6.0	11.7
Haiti	25.9	..	..	2.7	7.3
Honduras	21.2	..	..	8.6	14.5
Mexico	25.4	65	67.2	9.5	15.6
Nicaragua	23.2	73	74.2	5.6	11.1
Panama	25.9	52	52.4	6.6	10.4
Paraguay	30.6	..	..	7.4	19.6
Peru	21.4	62	64.2	13.5	20.3
Uruguay	10.8	..	..	25.9	66.4
Venezuela	27.4	51	53.1	69.7	155.4
TOTAL	22.2	..	..	15.9	34.9

Source: United Nations Economic Commission for Latin America.

Notes: The basic data were taken from: official sources of these countries; *The Foreign Trade of Latin America*, U.S. Tariff Commission; *Economic Survey of Latin America, 1948*, United Nations Economic Commission for Latin America; *Statistical Yearbook* and *Demographic Yearbook*, United Nations; and *Foreign Commerce Weekly*, U.S. Department of Commerce.

The figures referring to the percentages of population engaged in agricultural activities and primary production correspond to the following years: Colombia, 1938; Brazil, Chile, Mexico, Nicaragua and Peru, 1940; Venezuela, 1941; Cuba, 1943; Panama, 1945; and Argentina, 1947.

technical progress, the amount of capital per man employed must be increased, in agriculture as well as in industry and transportation; this means that the greater the population in a pre-capitalist or semi-capitalist state and the higher its rate of growth, the greater is the need for capital. In most of these countries there are serious difficulties in the way of the internal formation of the necessary savings to accumulate this capital; in addition to this, there is another equally important limiting factor: the amount of exports, upon which these countries depend to transform their savings into imports of capital goods, the greater part of which must be brought from the great industrial centres. Here, too, there are striking differences between one country and another, which, together with the

differing capital needs and other factors, contribute towards the divergence in the terms of the problem of development.

Without touching here upon the subject of the second section of this survey, and for the sole purpose of pointing out some of the differences, we would refer to table 1 which shows the value of exports in US dollars *per capita*, the average rate of the annual population increase, and the proportion of people employed in agriculture; this table conveys an idea of the population, which in most cases, is still in a pre- or semi-capitalist state.

To return to the case of Mexico: it is easy to see how acute is the problem of economic development in that country. On the one hand, the population increase is high and the proportion of people employed in agriculture very high indeed; hence the potential needs for capital are enormous; on the other hand, the exports with which they must be satisfied are amongst the lowest *per capita*. Brazil is in a similar position. These are the two most highly populated countries of Latin America, a circumstance which lends special emphasis to these data.

Cuba, on the other hand, is in a more favourable situation. The rate of the population increase there is lower and so is the proportion of people employed in agriculture, whereas Cuba's *per capita* exports rank with those of Venezuela amongst the highest in Latin America. In this respect, there is a certain resemblance between the two countries, though in Venezuela exports are increasing at a very rapid rate, while in Cuba they have suffered from the depressive factors common to most Latin-American countries.

Finally (though we do not propose to enter into too much detail at this stage) in Argentina the rate of population growth is lower than, and the percentage employed in agriculture equal to that of Chile and lower than that of the other countries; yet Argentine exports, despite a tendency to decline in volume since the world economic crisis, as already stated, still represent a high *per capita* value, though not equal to that of Venezuela and Cuba. But since this value expressed in dollars of a constant purchasing power, is tending to decrease, it is not surprising to find that the insufficiency of these exports constitutes a serious obstacle in the way of Argentine economic development.

This shows that it is not enough to take into account the amount of exports at a given time in order to judge the terms of the problem of economic development; their rate of increase must also be considered. Exports which seem very satisfactory may soon no longer be so, if the rate of internal growth is rapid. This point will be discussed later; we would only mention at this stage that, apart from the case of Venezuela, referred to above, the increase in the volume of exports does not appear

sufficient on the whole to satisfy the need for imports which economic development brings with it.<sup>1</sup>

At this point, and again disregarding the case of Venezuela, we come to the second common denominator. The first, as already stated, consists of the insufficiency of exports to provide employment for the surplus manpower arriving from the increase in population and from technical progress in primary production. The second is that exports are also inadequate to meet the demands of the economic development. This gives rise to a very important phenomenon: the tendency towards persistent disequilibrium in the balance of payments, a phenomenon generally inherent in the process of economic development. Let us now attempt to analyse this phenomenon.

#### 4. THE INCREASE IN INCOME AND DISEQUILIBRIUM

The fundamental economic problem of Latin America lies in increasing its real *per capita* income by virtue of an increase in productivity, since the raising of the living standards of the masses by means of the redistribution of income is very strictly limited. An increase in *per capita* income means that total income must increase at a greater rate than the population. When this occurs, imports likewise tend to rise at a greater rate than population. If exports do not follow suit there will of course be a disequilibrium in the balance of payments, with consequent effects upon the domestic economy.

To understand this phenomenon, let us take an ideal case of dynamic equilibrium in which exports and total income increase at the same steady rate as the population and imports in turn rise in the same proportion as exports. Dynamic equilibrium therefore in this case means that productivity remains constant and consequently there is no increase in *per capita* income. Let us now assume that technical improvements are introduced into agriculture for domestic consumption, with consequent higher productivity and hence higher income, and examine the consequences.

By means of these improvements, it is possible to increase production with less labour employed. Two immediate consequences arise: an increase in productivity per man and a surplus of labour in agriculture. There will have been an increase in the real income of the community from agriculture, since the increased productivity will either have benefited the producers, by increasing their profits, or the consumers, through lower prices. At the same time, the employment of the surplus manpower in other activities would mean a further increase of real income, which together with the previous one makes up the total increase of income.

The disequilibrium becomes apparent immediately. A part of the increase in income will tend to be spent on imports, raising them above their

<sup>1</sup> For the sake of simplicity, the analysis will be limited to exports and imports without reference to other items of the balance of payments, which it would be easy to include.

normal rate of increase and causing them to exceed exports. The import coefficient need not necessarily have varied; however, it is probable that it also would have been stepped up, for two reasons: first, because there must be greater imports of capital goods in order to increase productivity; and secondly, because of certain typical reactions of a peripheral country. In fact, observation shows that at a given moment the import coefficient is very low in groups with low productivity and a low level of income per person, and that it rises progressively in relation to the income group; thus, when there is a rise in income, per person, of either the primary producers or the consumers, the favoured groups will increase their import coefficient and contribute to a rise in the total coefficient. If this should occur, the disequilibrium between imports and exports would be still greater.

The disequilibrium in internal demand is closely linked to that in the balance of trade. It is obvious that the increase in income has its counterpart in the value of the goods and services the production of which yields this income,<sup>2</sup> so that if a part of the increase in income is spent on imports, an equal amount of internal demand will disappear, which causes a disequilibrium with regard to the greater production offered.

Such a disequilibrium would not occur in the ideal case of steady development mentioned above, for then imports would rise at the same rate as total income and exports, and the strict correlation between the two would be assured. At the same time, the fall in internal demand caused by greater imports would be compensated by the normal increase in the income of export industries and by the internal demand deriving from it.

This suggests that if the manpower displaced from agriculture for domestic consumption had been employed in increasing exports, the disequilibrium would not have arisen. This possibility is carefully examined at the end of the chapter. Meanwhile other aspects of the problem must first be considered to maintain the sequence of the argument.

So far it has been assumed that technical progress has only been introduced into agriculture for domestic consumption. What would happen if this progress had been placed in the service of industries producing for export? In this case, as in the preceding one, it is assumed that the external demand for the exports of the country in question increases at the same regular and constant rate as the population of that country and that the demand does not make it possible to step up exports at a higher rate. This being so, the manpower surplus produced by technical progress cannot be employed in the export industry. If industry and other activities are developed in order to absorb it, an increase in real income will also occur, as in the previous case, with the same effects upon the balance of payments and internal activity.

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<sup>2</sup> This statement is theoretically incorrect, as in any process of increasing production the cash income is always greater than the value of the finished production. However, it is a theoretical nicety which we may disregard for the purpose of the matter under discussion.

It is obvious that if, when the national income of a country increases at a greater rate than its population, exports did the same, there would be no disequilibrium. However, this has not been the general experience in the Latin-American countries during the last twenty-five years, as the next chapter indicates. It now becomes easy to understand the reason for certain tendencies towards a chronic disequilibrium in the balance of payments observable in some of these countries which are anxious to increase productivity and raise the standard of living of the population. It is true that inflation is partly, often chiefly, responsible for this; but in order to arrive at the truth, the organic phenomenon of economic development must be distinguished from the circumstantial phenomenon of inflation. To the degree that the import coefficient remains in one way or another unadjusted—when total income increases at a greater rate than exports and when no foreign investments are made to cover the time lag until readjustment takes place—the tendency toward disequilibrium will be constant and will inevitably have monetary consequences whether inflation is present or not.

Since inflation is usually accompanied by a notable increase in imports of capital goods, it might be thought that if these were paid for with real savings and not with inflationary resources, no disequilibrium would occur. It would, however, occur even if the capitalization were effected without inflation, since, whereas only a part of the income formerly consumed and now saved, was spent in imports, according to the coefficient, now the whole is spent.

##### 5. THE SURPLUS OF MANPOWER IN PRIMARY PRODUCTION, AND EXPORTS

It has just been explained how, when income increases at a greater rate than population, economic development is accompanied by phenomena of disequilibrium, which occur because exports are not then adequate to meet the demands of the development. In other words, the capacity to import does not grow in proportion to the necessity to import. It was also explained above that in the same way exports are insufficient to provide employment for the surplus manpower arising from the increase in population and from technical progress in primary production.

There are, however, other possible forms of international economy, in which Latin-American exports could be very much greater than they now are. It is sometimes thought that the primary producing countries might perhaps, as in former times, have continued to increase their exports, had they still been disposed to accept as payment imports from the industrial centres. On the assumption that the latter reciprocated, it could be claimed, there would have been no reason for the above-mentioned phenomena of disequilibrium to take place.

The nature of this report precludes the discussion of economic policies and the indication of the advantages and disadvantages of alternative solutions. There is, however, an objective question which may be asked

and which concerns the analysis undertaken in these pages. If the typical primary-producer countries which include those of Latin America, were to employ in the export industries both the surplus of manpower arising from technical progress and the natural increase of population, would the import capacity of the industrial centres be sufficient to absorb the considerable increase of Latin-American exports?

In order to answer this question, we must first examine the influence which technical progress has had on the distribution of employment of the population.

It is a well-known fact that, at the primitive technical stage, the proportion of people employed in agriculture and other branches of primary production is very high; as technique improves, this proportion diminishes and there is an increase in the relative numbers employed in industry, trade, transport and public services.

In the United States about a century ago, 67 per cent of the gainfully employed population was engaged in primary production, while today scarcely 27 per cent is so employed. In Argentina, as will be shown later, the proportion has fallen to 36 per cent, even though primary production continues to be the chief source of exports. On the other hand, in countries where agriculture is still almost entirely in the pre-capitalist stage, the proportion is generally over 50 per cent and in some cases nearly 70 per cent.

The pattern of the distribution of employment is not arbitrary. In each country and epoch it depends principally upon the state of productive technique and upon the quantity and quality of the resources of all kinds which render it profitable. When technique is in a primitive state, it is logical that in view of the low productivity, a large part of the gainfully employed population should be engaged in producing foodstuffs and raw materials and in elementary processing. As technique improves and fewer people are needed to obtain more primary products, the surplus of gainfully employed population, together with the natural increase, become employed in industry, transport and trade, as a logical consequence of the expanding markets and specialization and diversification of production. In the same way, with the growth of productivity and real income per person, there is an increase in the demand for certain personal services; furthermore the State, as its functions expand, absorbs an increasing proportion of the additional real income and also of the gainfully employed population.

Thus, as technical progress spreads to the peripheral countries and especially when it penetrates the pre-capitalist and semi-capitalist sectors of their economy, the distribution of the gainfully employed population necessarily undergoes substantial changes.

Are there any special reasons for supposing that the consequences of the phenomenon of the spread of technique in the peripheral areas would

be different from those which took place in the countries in which technical progress had previously developed?

Let us suppose for a moment that the peripheral countries decided, as productivity in primary production rose, to continue to employ therein the same proportion of people as now. The result would be that throughout the world there would be a surplus of primary products which could not be processed, transported or distributed according to the technical standards reached, because there would not be sufficient gainfully employed population to do these jobs; there would be a surplus of labour in primary production and a shortage in secondary production.

This is inadmissible, both from a logical and an empirical point of view; technical progress forges links of interdependence between the various branches of economic activity which cannot be altered lightly. Just as the development of industry, transport and trade, as well as services, needs the labour which is no longer necessary to primary production, the latter in its turn could not expand further without a corresponding development of these other activities.

Hence the problem is not whether industry and similar activities should or should not be developed when productivity rises in primary production, but whether the increase in industry, resulting from the extension of technical progress, should take place in the existing industrial centres or in the new centres which are appearing.

#### 6. THE MOBILITY OF PRODUCTIVE FACTORS

A good many of the peripheral countries, including those of Latin America, appear to have decided to make their own economies the basis of the development of industry, but it is not without interest to discuss briefly the conditions which would have to be fulfilled in order to carry out the opposite policy: namely, that the existing industrial centres should continue increasing their industries, while the periphery continued to devote itself to primary production.

It has already been seen that when technical progress is extended to primary production, it produces a surplus of gainfully employed population in that sector which can be absorbed by industry and other activities. If these other activities were not developed in the periphery, they would automatically have to develop in the centres which would consequently have to absorb the surplus manpower, in addition to that part of the natural increase in population which could not be absorbed in their own primary production.

This presupposes complete mobility of population; in other words it would mean not only that the unemployable surplus of the population must be willing to emigrate from the periphery, overcoming a rooted unwillingness, but also that the countries of the centre must be prepared to admit large masses of immigrants who, accustomed to relatively low wages, would compete to advantage with the workers of the centre.

This demonstrates that the idea that the peripheral countries should continue to act as primary producers as they did during a particular stage in the process of the extension of technique, according to the precepts of the international division of labour, is based upon certain assumptions which do not appear compatible with the economic and social reality of the world as this has emerged since the process started.

The logical consequences of the premise of mobility of productive factors, which is the postulate on which the theoretical concept of the international division of labour is built up, are very far-reaching and must be borne in mind in any attempt to interpret the significance of this reality by theory.

If this premise of mobility had been an actual fact, the economic and social effects of technical progress, and the way it spread, would certainly have been very different from what actually took place. This point will be referred to again in the following chapters.

## CHAPTER II

### WEAKENING OF LATIN AMERICA'S CAPACITY TO IMPORT DURING THE PAST TWENTY-FIVE YEARS

#### 1. LATIN-AMERICAN EXPORTS: VOLUME AND COMPARATIVE PRICES

It has been shown that with the increase of *per capita* income deriving from increased productivity, total income increases at a greater rate than population and that the rate of imports also tends to be higher.

If a persistently unfavourable balance of payments in a newly developing country is to be avoided, its capacity to import should increase *pari passu* with this tendency of imports, or, failing this, the import coefficient should be lowered as much as is necessary.

In the second part of the present report, we will consider the manner in which this phenomenon has occurred in the various Latin-American countries during the last twenty-five years. However, continuing our analysis, let us see how far the capacity to import has increased in relation to the growth of the population within Latin America.

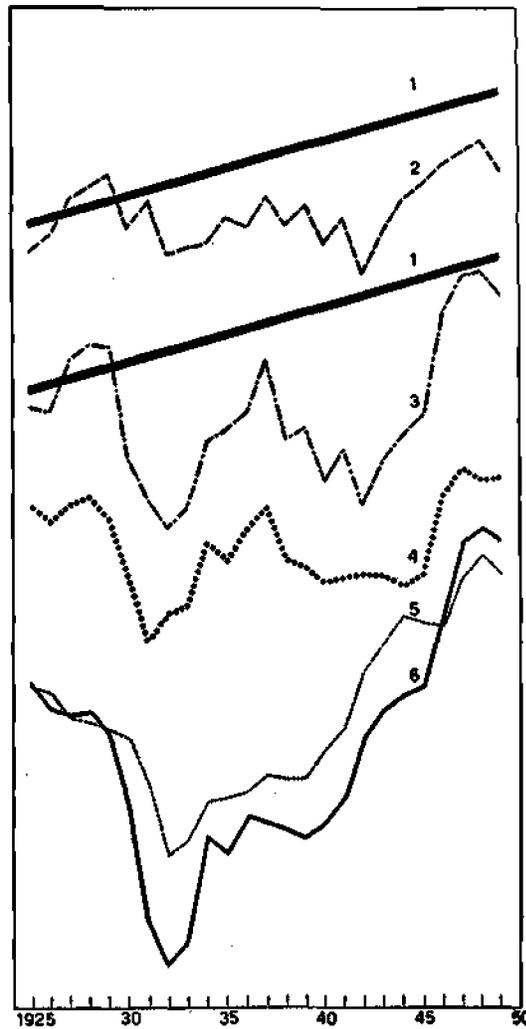
The capacity to import depends fundamentally upon the volume of a country's exports and the price relationship between its exports and imports. Of course, foreign-capital investments affect import capacity, but the ability to make the interest and amortization payments on these investments also depends on the total volume of exports and their relative prices. However, we will not consider this question at this stage.

Let us first trace the development of Latin America's exports. For this purpose, indices have been prepared showing the fluctuations in their total volume, the indices for each country being weighted according to the U.S. dollar value of its 1937 exports. These indices are compared with the growth of population in curves 2 and 1, respectively, of chart 1. In order to simplify the comparison, the two curves have been superimposed during the five-year period 1925-29. The corresponding figures are shown in table 2 A, which also includes other data mentioned later in this section. These curves, like all those on the charts attached to this chapter, have been prepared with the use of a semi-logarithmic scale in order to simplify comparison of the degree of fluctuation of the phenomena. The adverse effect of the world economic crisis upon exports is impressive: in the early 1930's the index dropped steeply and though some of the loss was made up, the curve remained very low for the rest of the decade in comparison with population, so much so that the marked

Chart 1

## LATIN AMERICA: POPULATION, EXPORTS AND CAPACITY TO IMPORT

Semi-logarithmic scale



1. Population.
2. Volume of exports.
3. Capacity to import.
4. Terms of trade.
5. Import prices.
6. Export prices.

Source: United Nations Economic Commission for Latin America.

increase shown by exports in the next decade was barely enough to emerge above the level prevailing before the crisis. During the five-year period 1945-49, exports were only 16.3 per cent higher than during the five-year period 1925-29, whereas Latin America's total population increased 44.3 per cent. The quantum of *per capita* exports was thus reduced by 19.1 per cent during those twenty-five years.

Table 2 A

LATIN AMERICA: POPULATION, EXPORTS AND CAPACITY TO IMPORT, 1925-1949

(Base: 1937=100)

Year	Population (Millions)	Quantum index of exports		Price Index		Terms of trade	Index of capacity to import	
		Total	Per capita	Export	Import		Total	Per capita
1925	97.0	84.6	103.8	135.9	134.0	101.4	85.8	105.3
1926	98.9	88.4	106.4	124.7	131.0	95.2	84.2	101.3
1927	100.7	99.0	117.0	121.7	120.0	101.4	100.4	118.7
1928	102.6	103.0	119.5	122.9	119.0	103.3	106.4	123.4
1929	104.3	108.7	124.1	113.2	117.0	96.7	105.1	120.0
1930	105.9	90.4	101.6	90.2	113.0	79.8	72.1	81.0
1931	107.4	98.1	108.6	61.6	95.0	64.8	63.6	70.4
1932	109.3	82.0	89.3	53.4	76.0	70.3	57.6	62.7
1933	111.0	84.7	90.8	57.8	80.0	72.3	61.2	65.6
1934	112.8	85.6	90.3	81.5	91.0	89.6	76.7	80.9
1935	114.9	93.8	97.1	77.6	92.0	84.3	79.1	81.9
1936	117.2	90.3	91.7	87.6	94.0	93.2	84.2	85.5
1937	119.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1938	121.6	91.1	89.1	83.4	99.0	84.2	76.7	75.0
1939	124.3	97.0	92.9	81.5	99.0	82.3	79.8	76.4
1940	126.5	85.7	80.6	85.5	109.0	78.4	67.2	63.2
1941	129.2	93.3	85.9	93.4	117.0	79.8	74.4	68.5
1942	131.5	77.6	70.2	113.9	141.0	80.8	62.7	56.7
1943	134.2	88.9	78.8	124.7	154.0	80.9	71.9	63.7
1944	136.9	99.8	86.8	130.7	169.0	77.3	77.1	67.0
1945	139.9	104.5	88.9	133.8	167.0	80.1	83.7	71.2
1946	142.6	111.6	93.2	171.3	163.0	105.1	117.3	97.9
1947	145.2	115.6	94.8	217.5	191.0	113.9	131.7	108.0
1948	148.3	120.8	97.0	229.5	208.4	110.1	133.0	106.7
1949	150.7	111.5	88.1	216.9	195.5	110.9	122.5	96.8
Percentage of variation with respect to the annual average for 1925-1929								
1945-49	44.3	16.6	-19.1	56.7	49.2	4.4	22.1	-15.6
1949	49.6	15.3	-22.9	75.3	57.7	11.3	27.2	-14.9

Source: United Nations Economic Commission for Latin America.

Notes: Population estimated according to official figures for each country, and the *United Nations Monthly Bulletin of Statistics*.

The quantum index of exports was obtained by weighing the national quantum indices according to the US dollar value of the exports in 1937.

The price index of exports has been arrived at by dividing the index of the value of Latin-American exports in US dollars by their quantum index.

The import price index corresponds to the direct arithmetic average of the export price index of the United Kingdom in United States dollar equivalents and the export price index of finished products of the United States.

The index of the capacity to import is the product of the terms of trade and the quantum index of exports.

Unfortunately, the terms of trade, so far from offsetting this movement, tended to sharpen its effects. In order to measure these variations, a price index of Latin-American exports has been calculated, and its fluctuations are represented by curve 6 on the aforesaid chart. It would have been useful to compare these prices with those of imports, but adequate data for all the countries concerned are not available. Pending further research, the average prices of exports from the United States and Great Britain have been used as a tentative indication of the cost of Latin America's imports. These averages are represented by curve 5 on the chart.

The ratio of export to import prices, thus computed, gives us the Latin-American terms of trade, shown by curve 4 on the chart. It should be noted that, after the high level reached during the 1925-29 period, these terms deteriorated considerably during the crisis; a fair part of the loss was subsequently made up, but the improvement was short-lived. The terms of trade declined again in the early 1940's, and remained at a low level until the end of the decade, when they rose and finally rose above the level of the late 1920's. Thus, the average for the five-year period 1945-49 is 4.4 per cent higher than the 1925-29 average.

From this analysis, it is now possible to calculate an index of the fluctuations in Latin America's capacity to import. For this purpose, the index of the quantum of exports was multiplied by the index of the terms of trade. The resultant index gives us an idea of the fluctuations of the volume of goods which Latin America could import, as a function of the volume exported and the relative prices of these exports. The fluctuations of this new index are indicated on curve 3.

During a large part of the period under observation, capacity to import decreased even more than the volume of exports, due to the unfavourable trend of the terms of trade. Thus despite its fluctuations the index remained far below that of population, and only in the last few years do we find the capacity to import rising to what it might have been, had it continued to increase at the same rate as the population. In 1945-49, it was only 22.1 per cent higher than in 1925-29, whereas the population, as mentioned before, had increased by 44.3 per cent, and *per capita* capacity to import was thus reduced by 15.6 per cent.

In order to simplify comparison, the following table has been prepared to show the five-yearly averages corresponding to the annual figures given in table 2 A.

The data are not sufficient for the satisfactory measurement of the phenomena. This would require very detailed investigation, demanding time and labour not now available. It is not merely a question of analysing export and import prices; in addition it would be interesting to determine what percentage of the export price remains in the exporting country. For instance, statistics appended to another chapter show that Chile

Table 2 B

LATIN AMERICA: POPULATION, EXPORTS AND CAPACITY TO IMPORT, 1925-49

*(Percentages of variation as compared with the 1925-29 yearly average)*

Year	Population	Quantum of index of exports		Price Indices		Terms of Trade	Index of capacity to import	
		Total	Per capita	Export	Import		Total	Per capita
1930-34 ...	8.5	- 8.8	- 15.8	- 44.3	- 26.7	- 24.3	- 31.3	- 36.6
1933-39 ...	18.6	- 2.4	- 17.5	- 30.5	- 22.1	- 10.8	- 12.9	- 26.3
1940-44 ...	30.8	- 7.9	- 29.5	- 11.4	11.1	- 20.3	- 26.7	- 44.9
1945-49 ...	44.3	16.6	- 19.1	56.7	49.0	4.4	22.1	- 15.6
1949 .....	49.6	15.3	- 22.9	75.3	57.4	11.3	27.1	- 14.9

Note: For source and annotations, see table 2 A.

is now receiving a greater proportion of the international price of copper than was the case at the beginning of the quarter-century under review; the same applies in the case of Venezuela and its petroleum exports. Facts such as these, possibly of considerable importance, are not immediately apparent from the price relations we have analysed. Moreover, the price indices of industrial exports, used in calculating those relations, do not allow for the improvement in quality of the goods, and yet this has certainly been much greater than in the case of raw materials. The foregoing conclusions should therefore be regarded as provisional, pending further research.

## 2. UNITED STATES IMPORTS FROM LATIN AMERICA

Yet, apart from some isolated cases, during the past twenty-five years the volume of Latin-American exports certainly did not increase as much as the population and the movement of price relations did not tend to offset this disparity. Ever since Latin America entered the international trade market, about the middle of the nineteenth century, no similar phenomenon of like significance had occurred. Yet it is highly important in relation to problems of economic development and warrants detailed analysis. Accordingly we shall examine the trend in the last twenty-five years of Latin-American exports to the United States and Great Britain, two countries which account for a considerable proportion of Latin America's total export volume.

We shall first try to discover what happened in the case of Latin-American exports to the United States. Chart 2, which was prepared for this purpose, shows the fluctuations of real income in the United States, at constant prices represented by curve 3, in relation to imports (also at constant prices), that is, in relation to the volume represented by curve 2. The curves are superimposed during the 1925-29 period and the corresponding statistics will be found in table 3 A.

Table 3 A

REAL INCOME OF THE UNITED STATES, IN RELATION TO ITS IMPORTS FROM LATIN AMERICA AND THE LATTER'S CAPACITY TO IMPORT AS A FUNCTION OF ITS EXPORTS AND THEIR RELATIVE PRICES  
(Yearly variations)

Year	Real income of the United States Millions of dollars of 1937	United States imports from Latin America	Coefficient of United States imports from Latin America (per cent)	Price indices		Terms of trade of Latin America with the United States	Latin America's capacity to import from the United States
				Exports	Imports		
1916	53,067	576.3	2.12	142.9	..	..	..
1917	53,926	646.5	2.22	159.4	..	..	..
1918	58,118	650.9	1.94	170.0	..	..	..
1919	58,827	613.3	2.09	215.0	..	..	..
1920	65,362	592.3	2.25	298.2	..	..	..
1921	56,128	498.0	1.22	138.8	186	74.6	55.2
1922	52,215	655.9	1.55	120.8	153	79.0	77.0
1923	64,374	675.8	1.56	151.8	147	103.3	103.8
1924	65,051	645.7	1.54	160.3	144	111.3	106.8
1925	66,086	624.2	1.44	161.2	145	111.2	103.2
1926	69,361	673.3	1.42	154.7	146	106.0	106.1
1927	69,779	604.8	1.30	158.6	132	120.2	108.0
1928	69,637	564.7	1.25	167.9	130	129.2	108.5
1929	71,620	662.0	1.28	153.1	129	118.7	116.8
1930	69,613	580.3	0.94	116.8	123	94.9	81.9
1931	64,734	506.5	0.79	94.4	98	96.3	72.5
1932	56,961	371.4	0.69	87.0	90	96.7	53.4
1933	55,891	387.1	0.71	81.6	86	94.9	54.7
1934	60,659	400.1	0.71	91.8	93	98.7	58.7
1935	62,504	509.5	0.83	91.2	94	97.0	73.5
1936	67,964	541.7	0.77	92.4	95	97.3	78.4
1937	69,419	672.5	0.97	100.0	100	100.0	100.0
1938	68,446	544.7	0.73	83.2	98	84.9	68.8
1939	77,202	632.6	0.75	81.8	97	84.3	79.3
1940	84,681	796.1	0.80	77.8	106	73.4	86.9
1941	97,388	1,158.5	1.02	87.0	109	79.8	137.5
1942	113,149	901.4	0.76	108.4	135	80.3	107.6
1943	133,945	1,168.8	0.83	112.8	149	75.7	131.6
1944	142,690	1,389.6	0.92	114.7	175	65.5	135.3
1945	140,792	1,359.1	0.94	119.7	174	68.8	139.0
1946	120,581	1,136.1	1.04	154.9	152	101.9	172.1
1947	109,046	1,030.6	1.12	208.6	180	115.9	177.8
1948	112,199	1,038.8	1.10	226.4	188	120.4	186.0
1949	117,989	1,003.0	1.09	229.7	180	127.8	190.5

Source: United Nations Economic Commission for Latin America.

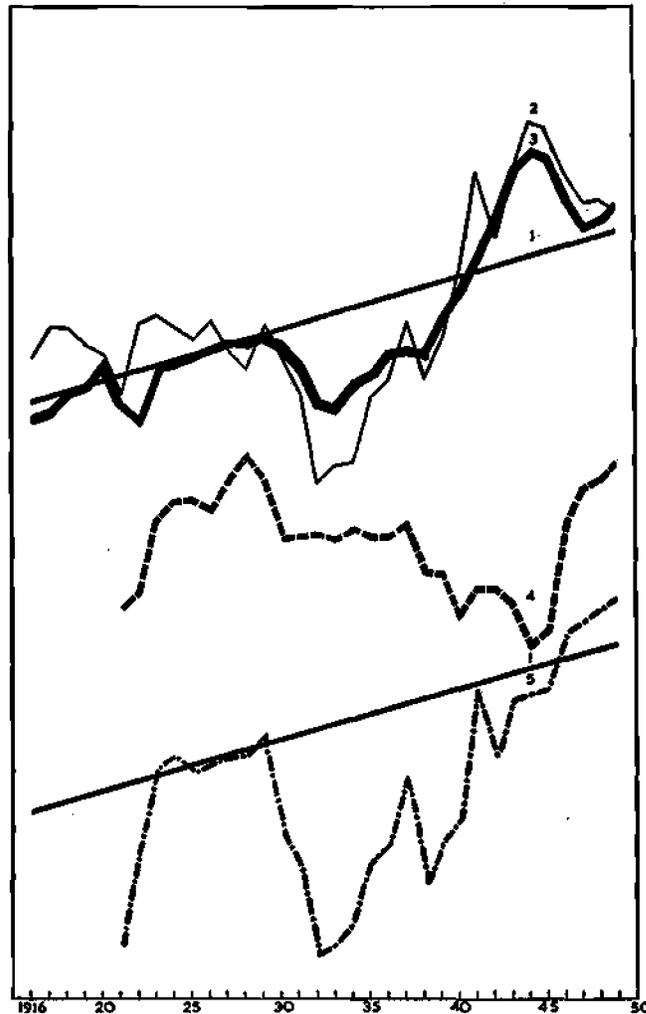
Note: Basic data for the calculation of real income, imports and the import coefficient were obtained from: *National Income in the United States*, by Robert Martin; *Statistical Abstract of the United States: Statistical Yearbook*, United Nations and *Historical Statistics of the United States*.

The export price index has been calculated by the Economic Commission for Latin America on a basis of the 14 principal products exported by Latin America to the United States. Import prices were based on the export price indices for manufactured products finished in the United States.

Chart 2

REAL INCOME OF THE UNITED STATES, IN RELATION TO ITS IMPORTS FROM LATIN AMERICA AND THE LATTER'S CAPACITY TO IMPORT AS A FUNCTION OF ITS EXPORTS TO THE UNITED STATES AND THEIR RELATIVE PRICES

Semi-logarithmic scale



1. Population of Latin America.
2. United States imports from Latin America.
3. Real income of the United States.
4. Terms of trade of Latin America with the United States.
5. Latin America's capacity to import from the United States.

Source: United Nations Economic Commission for Latin America.

Looking at the curves of this chart, we see that during the past twenty-five years, the fluctuation of real income in the United States has been the dominant factor in the rise and fall of imports from Latin America. This correlation is not absolute, since in the 1930's imports fluctuated more sharply than income, and over the whole period they reveal minor fluctuations which do not follow the movement of income. There is, however, a definite connexion between these factors which seems to indicate that the fluctuations of income outweigh those of other factors in their influence upon the volume of imports.<sup>1</sup>

By multiplying the index of the quantum of United States imports, mentioned above, by the terms of trade, we obtain a corresponding index of the capacity of Latin America to import, as a function of the quantum of its exports to the United States and the terms of trade. This new index is represented by curve 5 of the aforesaid chart.

In order to calculate the terms of trade, a special index was first computed based upon the prices of the fourteen principal Latin-American commodities imported by the United States; this index was then divided by United States export prices of finished manufactures. These data are all indicated on the above-mentioned chart.

Let us now see what conclusions can be drawn from these indices. It should be especially noted that during the 1930's the quantum of Latin-American products imported by the United States decreased remarkably in relation to the five-year period, 1925-29, prior to the great world crisis, whereas population continued to increase at the same rate as

Table 3 B

REAL INCOME OF THE UNITED STATES, IN RELATION TO ITS IMPORTS FROM LATIN AMERICA AND THE LATTER'S CAPACITY TO IMPORT AS A FUNCTION OF ITS EXPORTS TO THE UNITED STATES AND THEIR RELATIVE PRICES

(Percentage of variation as compared with the 1925-29 yearly average)

Years	Real income of the United States	United States imports from Latin America	Coefficient of United States imports from Latin America	Price indices		Terms of trade of Latin America with the United States	Latin America's capacity to import from the United States
				Exports	Imports		
1930-34	- 11.2	- 28.3	- 42.5	- 40.7	- 28.2	- 17.8	- 40.8
1935-39	- 0.3	7.4	- 39.6	- 43.6	- 29.0	- 20.8	- 26.3
1940-44	65.0	73.0	- 35.1	- 37.1	- 1.2	- 36.1	10.4
1945-49	73.3	77.9	- 20.9	18.1	28.2	- 8.6	59.5
1949	70.3	60.2	- 18.7	44.4	32.0	9.1	75.6

Note: For source and notes, see table 3 A.

<sup>1</sup> It would be interesting, nevertheless, to study each commodity separately, in order to observe the effect of higher customs tariffs and other restrictive measures which are known to have exerted a considerable influence in some cases. The consequences of restrictions formerly applied to some goods may possibly have been neutralized by the increased importation of other articles, especially during the 1940's under the pressure of war and post-war demand.

before. The capacity to import suffered an even greater reduction owing to the deterioration of the terms of trade, as can be seen from table 3 B.

During the 1940's imports rapidly made up the ground they had lost and surpassed the growth of the population. But the capacity to import did not improve to the same extent. Whereas in the five-year period 1940-44, the index of imports reached 173 and that of population 130.8 in relation to the 1925-29 level, the index of the capacity to import rose only to 110.4, the index of the terms of trade having reached its lowest point, 63.9, during that five-year period. However, in the following period, 1945-49, the index of the terms of trade rose to 91.4, whilst that of export rose to 177.9. Consequently the index of the capacity to import was raised to 159.5 and for the first time in the whole twenty-five years was higher than the growth of population.

### 3. UNITED KINGDOM IMPORTS FROM LATIN AMERICA

We shall now consider the trend of British imports of Latin-American goods. For this purpose, chart 3 and table 4 A have been drawn up along the same lines as those relating to the United States.

It will be seen at once that the close connexion between real income and imports from Latin America existing in the United States does not hold true in the case of Great Britain.

On the contrary, there is a notable dissimilarity between the two curves. Thus, while real income in Great Britain rose from 100 in 1925-29 to 136.3 in 1945-49, the index of goods imported from Latin America fell to 76.2. It is not surprising, therefore, that the index of Latin America's total exports, as indicated at the beginning of this chapter, did not rise at the same rate as the population during the past twenty-five years. The increased exports to the United States were not sufficient to offset the reduction of exports to other countries, among which Great Britain is, of course, one of the most important.

It is likely that the import restrictions imposed by Great Britain as a result of the world economic crisis were the determining cause of the great difference between the country's income and imports during the 1930's. To their influence were added those of the wartime restrictions and the post-war disequilibrium.

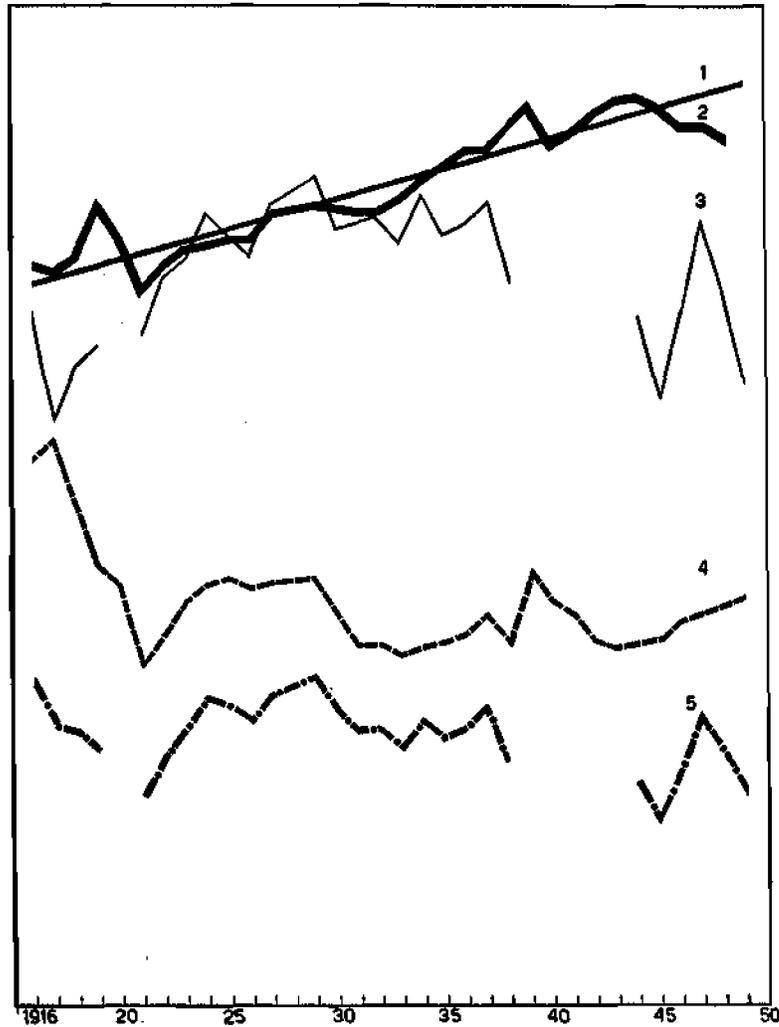
It should be pointed out, incidentally, that these restrictions similarly affected imports not only from Latin America but also from other countries. Great Britain, in order to pursue its natural development after the great depression, was compelled to lower its import coefficient, since it obviously could not have afforded to maintain imports at such a high level in proportion to its income in the face of a sharply diminished power to expand exports.

This chart also shows Latin America's capacity to import. As before, the corresponding index has been obtained by multiplying the index of

Chart 3

REAL INCOME OF THE UNITED KINGDOM IN RELATION TO ITS IMPORTS FROM LATIN AMERICA AND THE LATTER'S CAPACITY TO IMPORT AS A FUNCTION OF ITS EXPORTS TO THE UNITED KINGDOM AND THEIR RELATIVE PRICES

Semi-logarithmic scale



1. Population of Latin America.
2. Real income of the United Kingdom.
3. Imports from Latin America.
4. Terms of trade of the United Kingdom.
5. Latin America's capacity to import from the United Kingdom.

Source: United Nations Economic Commission for Latin America.

Table 4 A

REAL INCOME OF THE UNITED KINGDOM IN RELATION TO ITS IMPORTS FROM LATIN AMERICA  
AND THE LATTER'S CAPACITY TO IMPORT AS A FUNCTION OF ITS  
EXPORTS TO THE UNITED KINGDOM AND RELATIVE PRICES

(Yearly variations)

Year	Income of the United Kingdom	Imports from Latin America	Coefficient of imports from Latin America	Terms of trade of the United Kingdom	Latin America's capacity to import from the United Kingdom
	In millions of pounds sterling			Base: 1937 = 100	
1916	3,212	72.8	3.27	159.8	114.6
1917	3,157	53.4	2.74	169.6	89.2
1918	3,317	62.1	3.16	141.4	86.4
1919	3,892	66.9	2.76	116.9	77.0
1920	3,518	..	..	109.2	..
1921	3,051	68.7	2.56	86.9	55.8
1922	3,246	80.6	2.80	94.8	75.3
1923	3,402	85.3	2.95	104.6	87.9
1924	3,450	98.9	3.54	109.8	106.9
1925	3,504	92.5	3.22	111.2	101.3
1926	3,504	86.9	2.82	108.0	92.4
1927	3,824	101.2	2.97	110.1	109.8
1928	3,853	105.3	3.12	111.5	115.6
1929	3,943	110.6	3.19	111.7	121.7
1930	3,883	94.6	2.57	101.4	94.5
1931	3,843	96.2	2.28	91.8	87.0
1932	3,845	97.6	2.21	91.6	88.0
1933	4,097	90.7	1.86	88.1	78.7
1934	4,237	103.7	2.10	90.6	92.6
1935	4,428	92.4	1.88	92.2	83.9
1936	4,600	95.6	1.91	94.6	89.1
1937	4,616	101.5	2.20	100.0	100.0
1938	5,022	79.9	1.61	92.4	72.7
1939	5,302	..	..	113.7	..
1940	4,746	..	..	105.9	..
1941	4,958	..	..	99.9	..
1942	5,214	..	..	93.0	..
1943	5,447	..	..	91.1	..
1944	5,468	71.6	1.58	91.7	64.7
1945	5,381	57.0	1.26	93.2	52.3
1946	5,086	72.0	1.85	98.4	69.9
1947	5,006	96.7	2.72	99.9	95.2
1948	4,840	77.0	2.28	103.4	78.4
1949	..	58.9	..	106.9	62.0

Source: United Nations Economic Commission for Latin America.

Note: The basic data for the calculation of income and imports are taken from: *Economic Journal*, Royal Economic Society; *Statistical Yearbook*, United Nations; *The Statesman's Yearbook* and *Accounts Relating to Trade and Navigation of the United Kingdom*.

The price indices, by means of which the terms of trade are determined, correspond to figures supplied by the United Kingdom Board of Trade and Schlote in "*Entwicklung und Strukturwandlungen des englischen Aussenhandels von 1700 bis zur Gegenwart*", the figures for exports being based on the indices of finished products and for imports on the average indices for foodstuffs and raw materials.

Table 4 B

REAL INCOME OF THE UNITED KINGDOM IN RELATION TO ITS IMPORTS FROM LATIN AMERICA  
AND THE LATTER'S CAPACITY TO IMPORT AS A FUNCTION OF ITS  
EXPORTS AND THEIR RELATIVE PRICES

(Percentage of variation as compared with the 1925-29 average)

Years	Real income of the United Kingdom	United Kingdom imports from Latin America	Coefficient of United Kingdom imports from Latin America	Terms of trade of the United Kingdom	Latin America's capacity to import from the United Kingdom
1930-34 .....	6.8	- 2.7	-28.1	-16.1	-18.5
1935-39 .....	28.7	-25.6 <sup>a</sup>	-37.9 <sup>a</sup>	-10.8	-20.2 <sup>a</sup>
1940-44 .....	38.7			-12.9	
1945-49 .....	36.3 <sup>b</sup>	-27.2	-33.6 <sup>b</sup>	- 9.2	-33.8
1949 .....	29.9 <sup>c</sup>	-40.7	-25.5 <sup>c</sup>	- 3.3	-42.7

Note: For sources and notes, see table 4 A.

<sup>a</sup> 1935-38 average.

<sup>b</sup> 1945-48 average.

<sup>c</sup> 1948.

the quantum of imports by that of the terms of trade with the United Kingdom. As already explained, this index does not alter the conclusions arrived at regarding the relations between British imports from Latin America and the growth of the population in the latter area. It merely serves to emphasize the disparities already pointed out.

#### 4. THE TERMS OF TRADE AND IMPORT COEFFICIENT

In section 2 of the present chapter, we stated that the fluctuations of real income in the United States seem to constitute the dominant factor in the fluctuations of that country's imports of Latin-American goods. More conclusive proof than that apparent from the curves of chart 2 is furnished by chart 5, where the relationship between the two factors is shown and the coefficient of correlation has been calculated. The coefficient obtained is 0.94, and the relationship may be considered satisfactory.

That this coefficient does not equal unity means that other factors also influence the fluctuation of imports. It might be surmised that the terms of trade are to a certain extent responsible. If, in fact, the import prices of Latin-American goods decrease in relation to export prices of goods manufactured in the United States, that is to say, if the terms of trade improve for the United States, it would be reasonable to expect that such imports would thereby be stimulated. However, statistical analysis does not indicate a satisfactory correlation between the fluctuations of imports and the terms of trade. This is evident from the wide dispersal of points on chart 6, which shows the relationship between the two factors. Furthermore, the coefficient of correlation is a mere 0.43, which is far too low to be considered of any decisive significance.

This does not mean that the terms of trade have no influence at all on imports, but only that their influence in any case would be far less marked and perceptible than that of real income. The influence of the terms of trade is felt rather in the share of monetary income which the United States spends on the importation of Latin-American goods, as is shown in table 3 B.

It should be noted that in the 1930's, imports of Latin-American goods by the United States fell more sharply than that country's real income, despite the fact that the terms of trade improved noticeably for the United States in relation to the five-year period 1925-29. The net result of this improvement was that the latter country was able to acquire goods from Latin America with a much smaller proportion of its money income than previously, as can be seen from the marked decrease in the import coefficient. On the other hand, during the first five years of the 1940's, imports increased once more, and at a greater rate than real income. This could be attributed to the further improvement in the terms of trade, which then touched their highest level of the whole quarter-century. Had there

Table 5 A

## TERMS OF TRADE AND TOTAL IMPORT COEFFICIENT OF THE UNITED STATES

Year	Terms of trade (Base: 1937=100)	Total import coefficient	Year	Terms of trade (Base: 1937=100)	Total import coefficient
1900	..	5.26	1925	122.4	6.03
1901	..	4.79	1926	129.8	6.03
1902	..	4.89	1927	128.4	5.66
1903	..	5.23	1928	121.4	5.87
1904	..	4.93	1929	116.9	5.53
1905	..	5.22	1930	106.3	4.23
1906	..	5.29	1931	107.0	3.47
1907	..	5.88	1932	98.6	2.83
1908	..	5.09	1933	93.5	3.24
1909	..	4.96	1934	92.2	3.21
1910	..	5.53	1935	89.2	3.64
1911	..	5.43	1936	95.7	3.71
1912	..	5.62	1937	100.0	4.44
1913	125.8	5.76	1938	96.8	3.15
1914	..	6.07	1939	101.1	3.37
1915	..	5.15	1940	101.0	3.41
1916	..	6.17	1941	101.0	3.40
1917	..	6.37	1942	94.5	2.12
1918	..	5.32	1943	94.3	2.12
1919	101.0	6.20	1944	87.5	2.27
1920	115.7	6.73	1945	90.6	2.39
1921	100.7	4.43	1946	106.0	2.91
1922	104.5	6.08	1947	107.6	2.99
1923	114.6	5.77	1948	115.2	3.32
1924	113.5	5.39	1949	117.4	3.14

Source: United Nations Economic Commission for Latin America.

Note: The terms of trade have been calculated from the Latin-American viewpoint; accordingly they are the quotient obtained by dividing the index prices of imports by that of exports, not vice versa.

been such a price influence, its effect would not in any case have been felt during the following five-year period, since the terms of trade deteriorated considerably for the United States, yet its imports increased again, at an equal pace with real income.

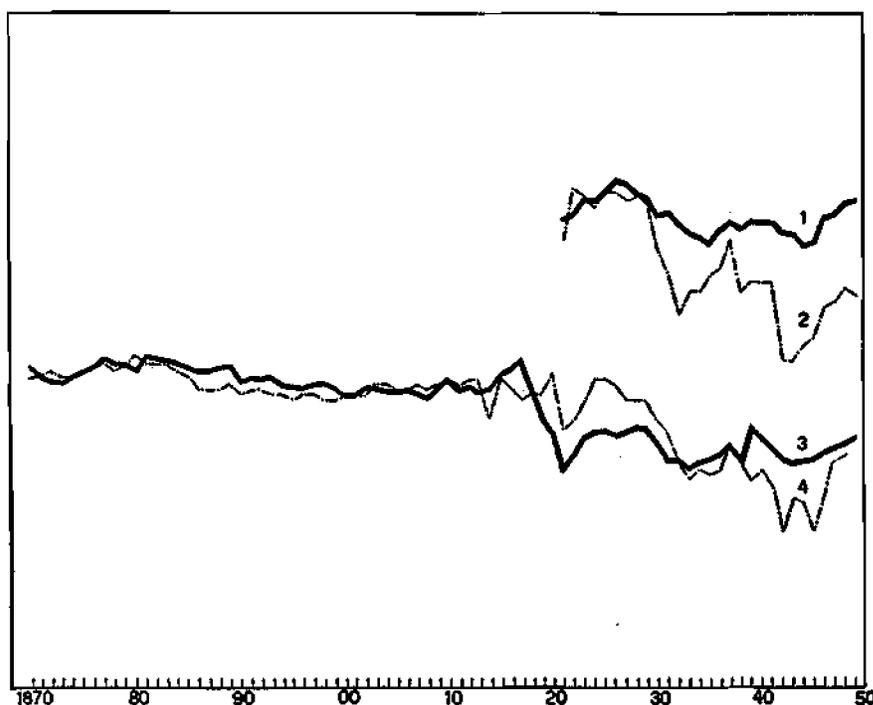
In any case, it is a fact that in both five-year periods, as a consequence of Latin America's unfavourable terms of trade, its export coefficient to the United States was maintained at an extremely low level.

An examination of the British statistics brings us to the same conclusions. By contrast, concurrently with the deterioration of Latin America's terms of trade, there appear other phenomena which sharpen the

*Chart 4*

RELATION BETWEEN THE TERMS OF TRADE AND THE COEFFICIENTS OF IMPORTS INTO THE UNITED STATES AND THE UNITED KINGDOM

Semi-logarithmic scale



1. Terms of trade of the United States.
2. Total import coefficient of the United States.
3. Terms of trade of the United Kingdom.
4. Total import coefficient of the United Kingdom.

Source: United Nations Economic Commission for Latin America.

decrease of the coefficient of imports from Latin America. A summary of the five-yearly statistics is given in table 4 B.

The phenomenon which we have described is certainly not limited to imports of Latin-American goods. On the contrary, it is even more noticeable in the total imports of the United States, for since these imports cover a greater variety of goods the individual factors which affect the small number of Latin-American export commodities do not make themselves felt to the same degree.

Table 5 B

TERMS OF TRADE AND TOTAL IMPORT COEFFICIENT OF THE UNITED STATES					
Years	Five-year averages		Years	Percentages of variation as compared with 1925-29 yearly average	
	Terms of trade	Coefficient of total imports		Terms of trade	Coefficient of total imports
1925-29	123.8	5.82	1930-34	- 19.6	- 41.6
1930-34	99.5	3.40	1935-39	- 22.0	- 37.1
1935-39	96.6	3.66	1940-44	- 22.7	- 54.3
1940-44	95.7	2.66	1945-49	- 13.2	- 49.3
1945-49	107.4	3.00	1949	- 5.2	- 46.0
1949	117.4	3.14			

Source: United Nations Economic Commission for Latin America.

Note: For sources and notes, see table 5 A.

Chart 4 and its corresponding table (5 A), make this quite evident. The terms of trade of the rest of the world with the United States are shown on curve 1, while curve 2 represents the total volume of goods imported by that country. Note the close relationship between the curves; the trend of the terms of trade which was unfavourable to the rest of the world during the great economic crisis; its subsequent brief improvement until 1937, followed by a further deterioration lasting until the end of the 1930's; finally, an improvement in the 1940's—all these movements strongly affect the coefficient of imports. It will be seen, however, that whereas during the latter part of the 1940's the terms of trade tended to resume the position they had held before the world crisis, the coefficient of total imports has tended to fall persistently. Consequently, during the five-year period 1945-49 the terms of trade only fell 13.2 per cent in relation to the 1925-29 level, whereas the import coefficient of total imports fell 49.3 per cent in the same period. Table 5 B presents a summary of the figures for the last twenty-five years.

A similar phenomenon can be observed in connexion with Great Britain, over a longer period of time, on the above-mentioned chart. The period falls clearly into two separate phases. The first lasts until the First World War (1914-18) when Great Britain ceased to be the principal cyclical centre. The second phase dates from then until the present time and shows the manifest vulnerability of the British economy *vis-à-vis* the fluctuations

of the new principal centre. The contrast between these two phases is remarkable. During the first stage, the terms of trade deteriorate relatively slowly and the fall of the import coefficient is also gradual. Between the 1870's and the first decade of the twentieth century, the terms of trade deteriorated 10.2 per cent for the rest of the world. Furthermore, the proportion of money income which Great Britain employed to acquire its imports contracted by 9 per cent. In the second stage, however, after the First World War, there are violent fluctuations in both curves; the drastic deterioration of the terms of trade visibly affected the import

Table 6 A

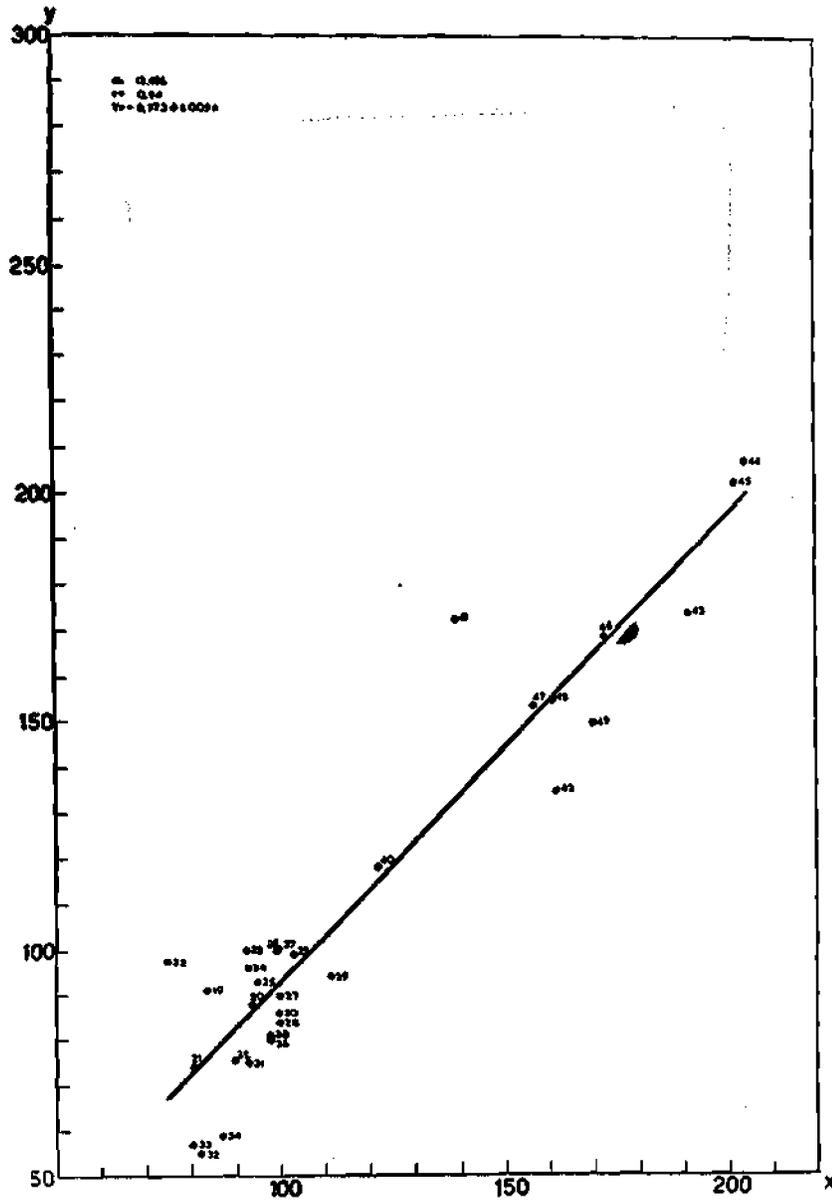
## TERMS OF TRADE AND TOTAL IMPORT COEFFICIENT OF THE UNITED KINGDOM

Year	Terms of trade	Total import coefficient	Year	Terms of trade	Total import coefficient
1870	157.5	32.64	1910	149.9	32.88
1871	150.3	33.54	1911	141.7	31.78
1872	147.1	34.07	1912	143.9	32.83
1873	145.3	32.77	1913	141.0	32.46
1874	150.0	32.66	1914	142.6	26.33
1875	151.8	34.46	1915	154.2	32.88
1876	159.8	34.48	1916	159.8	30.96
1877	170.1	36.09	1917	169.6	29.31
1878	161.8	34.43	1918	141.4	30.10
1879	162.4	35.59	1919	116.9	29.78
1880	156.0	38.32	1920	109.2	34.12
1881	172.2	35.67	1921	86.9	24.34
1882	170.4	35.73	1922	94.8	26.10
1883	167.7	36.06	1923	104.6	28.52
1884	164.2	34.33	1924	109.8	32.60
1885	159.2	33.18	1925	111.2	33.18
1886	156.4	30.82	1926	108.0	31.72
1887	155.4	31.12	1927	110.1	29.39
1888	159.2	31.11	1928	111.5	28.72
1889	161.0	32.08	1929	111.7	29.22
1890	148.4	30.07	1930	101.4	26.38
1891	150.1	31.42	1931	91.8	23.49
1892	149.4	31.14	1932	91.6	19.66
1893	150.7	30.43	1933	88.1	18.11
1894	144.5	29.65	1934	90.6	18.85
1895	142.6	28.90	1935	92.2	18.40
1896	142.4	30.06	1936	94.6	19.32
1897	144.5	29.69	1937	100.0	22.27
1898	146.4	29.39	1938	92.4	19.68
1899	142.5	29.01	1939	113.7	17.58
1900	137.2	29.79	1940	105.9	19.27
1901	136.9	30.28	1941	99.9	16.50
1902	142.9	30.40	1942	93.0	13.00
1903	142.8	31.66	1943	91.1	15.80
1904	140.0	31.63	1944	91.7	15.62
1905	140.0	31.08	1945	93.2	13.23
1906	140.6	31.35	1946	98.4	15.85
1907	139.3	31.74	1947	99.9	20.37
1908	135.1	30.79	1948	103.4	21.27
1909	142.8	31.66	1949	106.9	..

Source: United Nations Economic Commission for Latin America.

Chart 5

UNITED STATES: RELATION BETWEEN NATIONAL INCOME AND IMPORTS FROM  
LATIN AMERICA



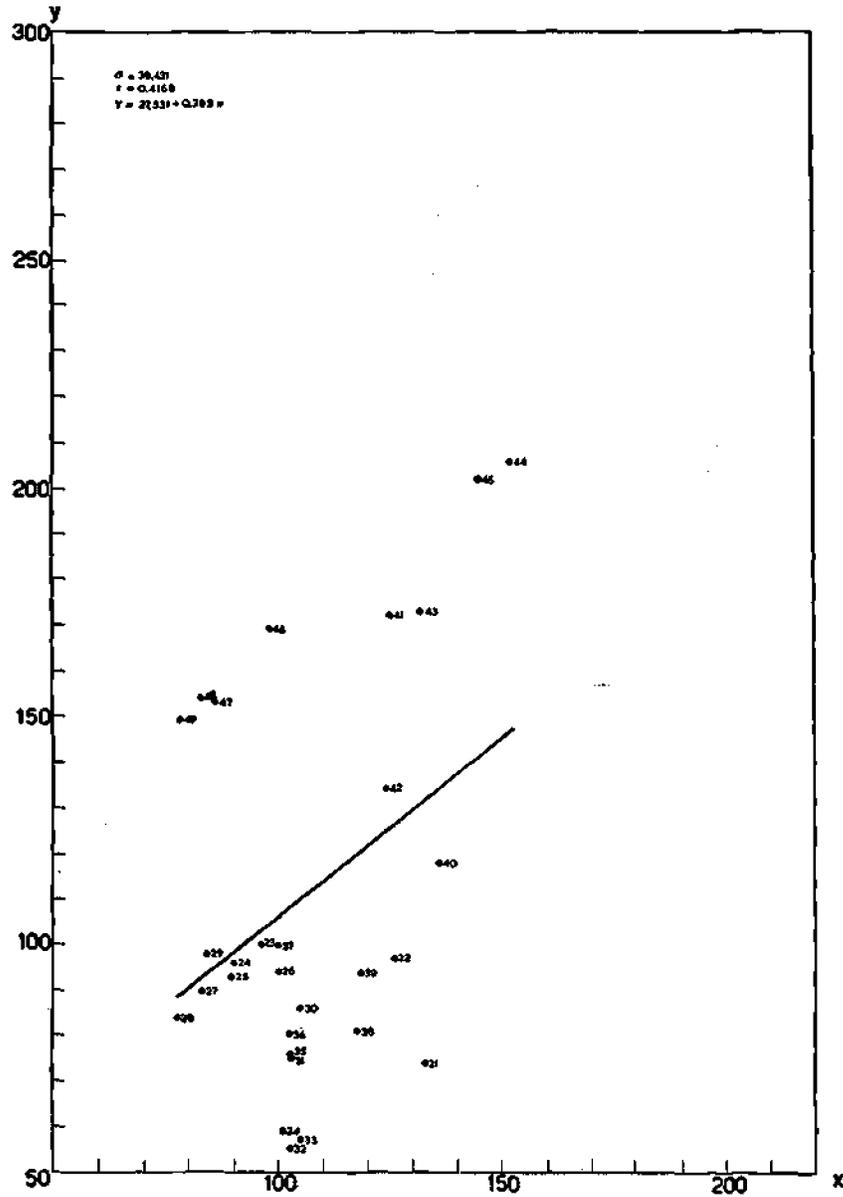
y = Quantum of United States imports from Latin America.

x = United States real national income.

Source: United Nations Economic Commission for Latin America.

Chart 6

UNITED STATES: RELATION BETWEEN THE TERMS OF TRADE WITH LATIN AMERICA AND THE QUANTUM OF IMPORTS FROM LATIN AMERICA



y = Quantum of United States imports from Latin America.  
 x = United States terms of trade with Latin America.

Source: United Nations Economic Commission for Latin America.

coefficient, as did their subsequent improvement. The same thing occurs during later fluctuations. The movement generally is more marked in the import coefficient, though this is, of course, also affected by other factors, including the import restrictions which were imposed after the world economic crisis and to which other restrictions were later added during the Second World War. The average British import coefficient for the period 1945-48 was 17.7 per cent, whereas in 1900-09, it had been 31 per cent. This meant a decrease of 43 per cent, which undoubtedly contributed to a considerable extent to the deterioration by 29.5 per cent of United Kingdom's terms of trade during that period. Table 6 B presents a summary of the figures given in table 6 A.

Table 6 B

## TERMS OF TRADE AND TOTAL IMPORT COEFFICIENT OF THE UNITED KINGDOM

Years	Five-year averages		Years	Percentages of variation on the 1925-29 yearly average	
	Terms of trade	Coefficient of total imports		Terms of trade	Coefficient of total imports
1925-29 .....	110.5	30.46			
1930-34 .....	92.7	21.29	1930-34 .....	- 16.1	- 30.1
1935-39 .....	98.5	19.43	1935-39 .....	- 10.8	- 36.2
1940-44 .....	96.3	16.02	1940-44 .....	- 12.9	- 47.4
1945-49 .....	100.4	17.67 <sup>a</sup>	1945-49 .....	- 9.2	- 42.0 <sup>a</sup>
1949 .....	106.9	21.27 <sup>b</sup>	1949 .....	- 3.3	- 30.2 <sup>b</sup>

Note: For sources and notes, see table 6 A.

<sup>a</sup> 1945-48 average.

<sup>b</sup> 1948.

## 5. READJUSTMENT OF THE IMPORT COEFFICIENT IN LATIN AMERICA

As shown above, the coefficient for total United States imports during the last five-year period was reduced by 46 per cent, which brings it down to almost half the level prior to the world crisis, whereas the coefficient for goods imported from Latin America was reduced by 18.7 per cent. This does not imply that Latin America's position in international trade was any more favourable during the past twenty-five years. Even though the direct effect of the reduction of the United States import coefficient was less intense with respect to Latin America than to the rest of the world, the indirect effect of its fall was equally serious, since other countries, finding their exports to the United States restricted, were also compelled to restrict imports from Latin America, as has just been shown in the case of Great Britain.

These events obliged Latin America to readjust its import coefficient in order to be able, during the great depression, to mitigate the effects of the decline in its exports and their prices on real income and also to enable it to continue to develop despite its seriously shrunken capacity to import.

Thanks to these readjustments, the Latin-American countries in general had been able to check the disequilibrium of their balances of payments by the beginning of the Second World War. This fact, together with the vast monetary reserves accumulated as a result of the difficulties of importing during the war, perhaps gave the impression that the problem of disequilibrium had been definitively solved.

However, if one keeps in mind that the persistent tendency towards disequilibrium is, in the final analysis, a result of economic evolution, as was shown in chapter I, it is not surprising that most countries, once they had spent a great part of these reserves, found themselves faced with new problems of disequilibrium as acute as those of the 1930's. Such problems will arise whenever the capacity to import does not increase together with real income. Moreover, when once an adjustment has been made which corrects the tendency towards disequilibrium, it will be found that the tendency will reappear in time if the capacity to import does not increase proportionately with real income.<sup>2</sup>

## 6. CONCLUSIONS

Two fundamental conclusions emerge from our analysis. The first is that the deterioration of the terms of trade has been one of the primary factors contributing to the decrease in the import coefficients of the United States and Great Britain, with serious repercussions on the economic development of the Latin-American countries and of the rest of the world, which caused them to reduce their own import coefficient to the detriment of their international trade. Secondly, if because of a decrease in national income or because of the imposition of any sort of restriction, imports into the United States and Great Britain are reduced, the consequent relative fall of import prices does not seem to cause imports to rise again. Rather, this fall of prices is simply a means of enabling the centres to acquire their imports with a smaller proportion of their money income.

It therefore does not seem that Latin America, considered as a whole, can increase its import capacity to any extent by increasing its exports to the great centres beyond the limits set by the increase of real income in these centres and by the restrictions hampering Latin-American exports. To try to exceed such limits would, in fact, be forcing imports to the

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<sup>2</sup> Obviously, in many cases inflation has aggravated disequilibrium, but inflation is generally associated with phenomena of growth. So far as inflation is used to obtain the resources required to provide the necessary capital and part of such resources are set aside for the importation of capital goods, the resultant disequilibrium is typical of economic development. But so far as inflation leads to an increase in the income of the social classes which it favours and this increase expands imports, to that extent the resultant disequilibrium is not characteristic of economic development but simply an inflationary manifestation. It is evident that the frequent occurrence of these inflationary phases in Latin America is not sufficient to allow one to attribute the disequilibrium of the balances of payments exclusively to inflation, or to ignore the fundamental factors which cause disequilibrium in the absence of inflation.

detriment of the terms of trade without leading to any substantial increase in the volume of exports.

If instead of observing Latin America as a whole, we consider the case of a single country, it is conceivable that a fall in the price of one product would eliminate other Latin-American producers from the market; but we are not concerned with this problem. It might also be possible that in the case of certain products, as has in fact actually occurred, Latin-American exports to the United States could be increased by taking advantage of special circumstances prevailing in the market. But as imports in the United States are to a great extent a function of real income, it is difficult to see how such imports could attain any importance in trade as a whole, independently of real income, except when vital changes take place in demand or when the present difficulties are attenuated or eliminated.<sup>3</sup>

#### 7. SENSITIVITY OF THE PRINCIPAL CENTRE TO EXTERNAL INFLUENCES

The marked decline in the United States import coefficient during the world economic crisis caused the effects of this depression to be felt even more acutely in the rest of the world. Countries were obliged to reduce their imports from the United States, besides curtailing trade with one another. Consequently, the decline of the import coefficient was accompanied by a similar drop in the export coefficient of the United States. The former decreased from 5.82 per cent in 1925-29 to 3.40 per cent in 1930-34, while the latter fell from 6.69 per cent to 4.14 per cent during the same period. Despite the changes brought about by war, both coefficients remained at relatively low levels, namely 2.95 per cent for the former and 5.27 for the latter in 1945-49, in comparison with the high coefficients maintained by Great Britain before it ceased to be the principal cyclical centre, for, in the period 1870-1914 Great Britain's import coefficient averaged 32.1 per cent and its export coefficient 18.9 per cent. This disparity is of great importance to world economy, since it is of considerable influence in determining how the principal cyclical centre functions and affects its relations with other countries. It affects both the centre's capacity to transmit to other centres and to the periphery its impulses of expansion and contraction and the effects upon the centre of the impulses transmitted to it by the rest of the world. We will not

<sup>3</sup> There are also cases where exports do not increase sufficiently owing to the weakening of the capacity to export, either because the productive potential of the country has been improperly applied or because the increase in domestic consumption has been achieved at the expense of exports. Moreover, this increase in domestic consumption may derive from an increase in real *per capita* income, due to increased productivity, or, again, it may be due to inflationary disturbances in the distribution of income. To what extent may such examples lead us to believe that the decrease in Latin America's capacity to import is the result of a decrease in its capacity to export? It is impossible to answer this question satisfactorily without examining what has occurred in the case of the leading items of exports. However, the fact that a country could have exported more does not mean that the great industrial centres would have extended their capacity to import nor that it has occurred to the detriment of the terms of trade.

deal with the former, since it is beyond the scope of this report, but rather study the effects of external impulses upon the cyclical centre and the way in which this centre passes it on or retransmits it to the rest of the world.

It is evident that the greater the export coefficient, the greater will be the influence of the fluctuations in exports upon the national income. Hence, when Great Britain was the principal cyclical centre, its exports, representing as they did a high percentage of the country's total income, fulfilled a dynamic function similar to that of capital investment. Thus, should the cyclical upswing be initiated elsewhere than in Great Britain, or develop there more intensely than in Great Britain, the increased income in the other centre and the extension of this phenomena to other countries would react favourably on British exports. This increase in British exports would, in turn, be quick to stimulate domestic activity and hence to produce an increase in the total income of Great Britain, owing to the effect of the increase on consumption as well as on the investment of capital first in the export industries and thereafter in other industries. On the other hand, since in the United States exports comprise a much smaller proportion of the national income, as a dynamic element they are not comparable to capital investment, which, as we all know, is of decisive influence in economic activity. Consequently, if capital investments in the United States were scarce, there is little likelihood that increased exports would be able to act as a dynamic factor affecting domestic activity, at least with sufficient vigour to make up for the deficiency of investments.

However, the British centre was not only more sensitive to external impetus than the United States, but also its capacity to return an external impetus was much greater, a fact chiefly due to the difference in magnitude of the respective import coefficients.

#### 8. TIME AND INTENSITY REQUIRED BY CENTRE TO RETRANSMIT EXTERNAL IMPULSES

Every country, whether great or small, whether its import coefficient be large or small, tends to pass on any impulses received from abroad. However, the time and the intensity with which it does so are of the greatest practical importance. The time factor has not yet been ascribed all the importance it merits in dynamic economics, and in order to illustrate this importance, we offer the following simple hypothetical example. Let us take two countries, A and B, where there is not full employment and the exports of which increase by 100; this represents a constant and continuous rate of increase which augments the real and monetary incomes of their respective countries, in each consecutive circulatory period. In A, the import coefficient equals 25 per cent, while in B it is only 5 per cent. In both cases, the duration of the circulatory period is six months. The circulatory process of such increments is well known and needs no more

than passing reference. In the first phase, a part of the first increment is absorbed by imports and the remainder flows into the internal economic system. The second increment is added to the remainder of the first increment; a part of the sum of these two is canalized into imports and the remainder flows into the third period, and so on, *ad infinitum*. In this way, income is gradually increased by an accumulative process, imports increasing proportionately, given a stable coefficient. A point is reached where the income so accumulated has increased to such an extent that the amount absorbed by imports will equal the periodic increments of 100 of exports. It is obvious that the lower the import coefficient, the longer it will take to achieve equality between the periodic increase of exports and the increase which in time occurs in imports. The figures in table 7 have been computed to clarify the problem :

Table 7

NUMBER OF CIRCULATORY PERIODS REQUIRED FOR IMPORTS TO REACH A SPECIFIED PERCENTAGE OF THE INCREASE IN EXPORTS, ACCORDING TO THE DIFFERENT VALUES OF THE IMPORT COEFFICIENT

Ratio of increase in imports to increase in exports	Import coefficient					
	0.30	0.25	0.20	0.15	0.10	0.05
	Circulatory periods					
0.50 .....	1.94	2.41	3.11	4.26	6.57	13.51
0.75 .....	3.89	4.82	6.21	8.53	13.15	27.02
0.90 .....	6.46	8.01	10.32	14.16	14.16	44.88
0.95 .....	8.40	10.42	13.43	18.42	28.43	58.30

Source: United Nations Economic Commission for Latin America.

In country A, where the import coefficient is 25 per cent, by the end of 2.41 cyclical periods, i.e., in a little more than twelve months, imports will already have reached 50 per cent of the periodic increase of exports; whereas in country B, the import coefficient of which is only 5 per cent, it will take 13.51 periods, in other words, six and one-half years to obtain the same results. In the same way, in order that imports should reach 95 per cent of the periodic increase of exports, in other words, practically equal them, country A would require a period of five years whereas in B more than a quarter of a century would be needed.

As a matter of fact, events do not follow rigorously the mechanical pattern set forth here; and as regards the accumulative increase of income, not only must we consider the income springing from the periodic increase of exports but also income deriving from increased production as a result of a general increase of demand. Furthermore, though imports tend to expand, as has been shown here, they do not reach parity with exports, since certain forces come into play which bring about the characteristic rise and fall in the process of growth. However, the figures given

above, as a first approach to a study of the problem, give some notion of the way the time factor operates.

#### 9. PERIOD OF TRANSMISSION AND DISEQUILIBRIUM

All other factors being equal, the lower the import coefficient, the lower a centre's capacity to transmit the impulses received. It is clear that in time, whatever the import coefficient, it will transmit the impulses received in their entirety. But whether this occurs in a short period or over a much longer one has a decisive influence in each concrete case.

Indeed, while imports into the centre do not equal exports, the rest of the world will be in a constantly unbalanced state, in which it is compelled to release a part of its gold reserves, this portion increasing in direct ratio to the original impulse received by the centre, while transmission of the effects of such impulse back to the rest of the world, whence it originated, will be proportionately slower.

The above analysis is the necessary basis to enable us to inquire if the tendency to disequilibrium resulting from the economic development of Latin America might conceivably generate in the world economic system forces which would run counter to this trend and eventually restore equilibrium. There are two aspects of this problem which will be dealt with successively.

If Latin America constantly bought more from than it sold to the United States (without reference to other items of the balance of payments) it is conceivable that, after some time, exports to the United States would approach the level of imports owing to the effect which such an increase would have had upon that country, as has just been shown. In the meantime, however, the disequilibrium would have provoked serious monetary difficulties in Latin America.

Nor is that all. Economic development, whilst the process runs its course, does not suffer from a single period of unbalance but rather, from a series of such periods. Thus, whilst forces would slowly be brought into play to correct the first one, another would arise immediately and be added to the first, and so on. Ultimately the loss of reserves would become so great that economic development must either be reduced or halted, or else, if economic development is to continue, import coefficients must be progressively lowered.

The classical theory regarding the balance of payments and the international movement of gold had the merit of perceiving the forces actually at work. But whether in its primitive and archaic form, or in the more recent adaptations of the formula, the theory has always tended to limit itself to the static, merely registering the fact that each disturbance represents transition from one period of equilibrium to another, without attributing any significance to the duration of such a transitional period. Thus focused, the theory could not be satisfactorily applied to problems of

economic development, since in such a process, disturbances follow one another closely and their duration is of outstanding importance.

That this inability of the theory to explain a dynamic process should not have been noticeable when Great Britain acted as the principal cyclical centre is easy to understand, for, as has been seen, the function of exports in the economic life of the country and its high import coefficient rendered it highly sensitive to any external stimuli and these were therefore returned to the rest of the world relatively quickly. Therefore, in the subsequent development of other great industrial Powers, there was no manifest tendency to a chronic unfavourable balance. There are various contributory factors, the complexity and interdependence of which must not be overlooked; nevertheless, it is obvious that the activity of the British centre exercised a very strong influence at the time. In fact, those countries whose economic development followed that of Great Britain were able to expand their exports successively, as the increase of their income compelled them to import more. This ability to export was brought about by the favourable influence which imports from these countries exercised on the British centre's national income, and because by virtue of its high import coefficient this centre was able to return the stimulus received with great intensity and in a relatively short time.

When a country's exports are sufficient to enable it to obtain in exchange the imports essential to its economic progress, and when its export capacity can be constantly augmented in harmony with its development, it is relatively simple to counteract the tendency towards disequilibrium which such development generally entails. Such was the case in the past. The British market, unhampered by any restriction, was free to import all that was offered from abroad on favourable terms of competition, whether from countries beginning to develop industrially, or from others definitely belonging to the periphery, where the former also acquired their raw materials, thus strengthening the ability of the peripheral countries to buy in the larger industrial centres. Without passing judgment on such methods, it is useful to point out that on the whole, the phenomenon under consideration gave to the principal cyclical centre an extraordinary capacity not only to extend to the rest of the world the impulses emanating from its own economy but also to assimilate such external impulses as reached it and return them without delay.

#### 10. THE PRINCIPAL CYCLICAL CENTRE UNDER THE HYPOTHESIS OF FULL EMPLOYMENT

In the foregoing analysis, it has been assumed that the increase of income in the cyclical centre, resulting from the expansion of its exports, has been effected without any difficulties, due to the existence of unemployed factors of production. It should now be interesting to see whether, given full employment of these factors, the cyclical centre's capacity to return external stimuli would be noticeably increased.

It is quite easy to understand that if in these circumstances exports were to increase, the subsequent increase of income and demand would cause prices to rise,<sup>4</sup> for if the factors of production were fully employed, it would not be possible to increase production for domestic consumption in order to meet the increased demand. The problem, therefore, is to know whether the rise in prices would be great enough for imports to increase rapidly and to the extent necessary to compensate for the increase in exports and so to pass on to the rest of the world the impetus received from it.

A simple example will help us to find the solution. Let us take coefficients which are fairly close to those given in relation to the United States. We shall assume a cyclical centre which has full employment and during a given initial period of the trade cycle, has income equal to 100,000 with its exports and imports balanced, each representing 4 per cent of the income; in the following period, exports increase from 4,000 to 6,000 and absorb the total increase of productive factors. Thus there will be an increase of 2,000 in income, which in turn will increase domestic demand; but since production cannot be increased, its factors being fully employed, prices will rise by 2 per cent. In order that imports and exports may balance, the former must also increase from 4,000 to 6,000, that is, by 50 per cent. It cannot be expected that a price rise of 2 per cent would result in an increase twenty-five times higher in the volume of imports during the second cyclical period. However, prices will continue to rise in subsequent periods unless they are influenced by opposing factors. Actually, the rise in price which takes place during the second period represents increased returns for the entrepreneurs and part of this goes into higher wages; and if this increase in income is fully absorbed during the third period, the balance attained between supply and demand in the second period will be maintained, so that if we assume that exports again prove to be greater than imports, the export surplus will once again exert pressure, causing prices to rise, and so on. It is, therefore, conceivable that given time, a rise in internal prices may lead to an expansion of imports, thus tending to balance these with exports.

In this case, as in others, the problem has been stated in simplified terms disregarding a number of complex factors which obtain in actual practice. On the one hand, the price rise depends on the proportion to which the increase in income is absorbed by consumption or investment; on the other, this rise in prices, besides affecting export and import prices, also produces other effects which alter the intensity and form of the phenomenon. Be that as it may, the fact is that the slighter the ratio between exports and income the longer it will take prices to rise and consequently affect imports. In the meantime, the disequilibrium brought about by excess of purchases abroad over sales which the countries of the rest of the world find themselves compelled to incur, will cause them

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<sup>4</sup> Prices will also rise without full employment, but to a lesser degree.

to release part of their gold reserves. As has been previously shown, this unfavourable balance is not the result of a single increase in the particular cyclical centre's exports in relation to its imports, but of a series of increases, and therefore, while a readjustment is taking place in respect of one increase, the need arises for another readjustment, and so on *ad infinitum*.

From the above it can be seen that when the principal cyclical centre reacts weakly to any external impetus and delays considerably in returning it, whether the productive factors are fully employed in the centre or not the disequilibrium caused by economic evolution conspires against monetary stability in countries which are beginning to develop owing to the persistent tendency of the cyclical centre to attract the gold reserves of such countries.

#### 11. CONDITIONS UNDER WHICH THE GOLD STANDARD OPERATES

Given this marked tendency to absorb gold but not release it again to be redistributed to the rest of the world, it is obvious that a country's capacity to correct an unfavourable balance by making use of its monetary resources, is limited. In order to avoid exhausting these reserves it is compelled to take measures which, in one way or another, tend to lower the import coefficient.

The repercussion of this is visible in monetary policy. When the principal cyclical centre's capacity to receive and return external stimuli allowed it to send forth the gold it accumulated, the adoption of a gold standard was expedient. This is no longer possible, however, since the cyclical centre, by reason of its economic structure, has to a great extent lost this capacity to transmit the gold which it attracted.

A centre like Great Britain, which through the increase of its exports and foreign investments during the cyclical upswing restored a large part of the gold accumulated during the downswing, was bound to contribute greatly to the smooth working of the monetary system in other countries. It was not enough that the free inflow and outflow of gold should be permitted in accordance with the well known rules of the game. The centre at which gold reserves accumulated by natural gravitation had in turn to expel it, regularly and systematically for the reasons set out above. In other words, it is essential that such reserves be able to leave the centre again, but the mere existence of such channels does not ensure that the gold really does flow outward. For this there must be a constant stimulus from some dynamic element which will force it to leave the centre.

The principles which were gradually being deduced from Great Britain's experience and from the improvement of its monetary and financial procedure did not create the facts but were rather an expression of them. Consequently, when the status changed radically, these principles were no longer fitted to serve the purpose they fulfilled before.

The new cyclical centre does not now possess the same power to expel gold. It is less sensitive to an external stimulus than was the British centre and far slower in transmitting it to the rest of the world by means of increased imports; hence the fact that the international monetary system works on lines very different to those followed before the First World War. For this and other reasons analysed elsewhere,<sup>5</sup> gold tends to become concentrated in the United States; this leads to the dollar shortage. It should be pointed out, nevertheless, that the problem is partly due to European reconstruction requirements, as well as to inflation. These transitory factors must therefore be recognized together with the persistent tendency of gold to accumulate in the United States. But owing to the weakness of the expelling mechanism, gold tends to be retained in that country, thereby in turn hampering the reconstruction of the monetary reserves of the rest of the world. Little wonder, then, that new regulatory and differential measures are adopted to curb the effects of this phenomenon.

Rather than being the mere effect of a particular monetary policy, these facts have far deeper roots. However favourable to the United States the credit balance of its external accounts may be, the magnitude of this balance is rather small in relation to the national income and the increase in income, accruing from the favourable balance of payments would, in the light of the foregoing, require considerable time before bringing about an increase in imports and in other items on the debit side of the balance of payments, sufficient, ultimately, to achieve a true balance.

Throughout this analysis we have disregarded the exceptional circumstances which contributed further to the concentration of the vast gold reserves in the United States during the 1930's, and others leading to similar results in the recent past. Our sole intention was to prove the existence of certain constant factors conducive to an unfavourable balance which are entirely independent of any circumstantial causes which may intensify the tendency. Apart from these, the process of economic development in Latin-American and other countries of the periphery tends to produce persistent disequilibrium and the influences which might reverse this tendency operate extremely slowly, chiefly owing to the way in which the principal cyclical centre operates.

## 12. FAILURE OF THE MULTILATERAL SYSTEM

Changes are taking place which, though frequently accompanied by incidental features of a temporary character, are indeed the result not of fortuitous events but of the fundamental changes analysed above. Of these, one of the outstanding is the collapse of the multilateral system. In the period prior to the aforesaid changes, when the gold standard worked with great fluidity, a given country, M, could continue to trade with another, N, despite a permanent deficit, purchasing more from N

<sup>5</sup> See *Economic Survey of Latin America 1948*, United Nations, chapter 8.

than it sold to the latter country (because of the particular nature of their reciprocal trade), since N could use the gold received from M to purchase from the rest of the world a greater volume of goods than it, N, sold there. However, if N is a leading cyclical centre and does not use the gold it receives in this way—because its own economic structure is not suited for that—the gold cannot eventually flow back to M. As a result, the multilateral system will be seriously affected.

It would not be surprising to find that, in these circumstances, M finds itself compelled to curtail its purchases from N, in order to lessen, if not cancel, the unfavourable balance between them, according to the volume of its monetary reserves or to its share in the supply of gold bullion which flows yearly from the mines. Since in the hypothetical case in point the source of the disequilibrium lies solely in N, there is no need for M to restrict its imports from other countries. Should it do so, the chronic unfavourable balance between M and N would affect not only trade between these two countries, but the whole chain of world commerce, thus reducing the classic advantages of multilateral trade. However, if M seeks to trade its goods, as heretofore, with the rest of the world, in order to continue to enjoy these advantages, it will find itself compelled to set up a complex system of bilateral compensatory agreements with each of the principal countries with which it trades. Multilateral trade can, of course, continue to feature in M's economy but experience shows us that such a system cannot arise spontaneously once the multilateral compensation system—typical of the gold standard era—is broken up. As these lines are being written, a deliberate effort to abolish bilateralism has begun to be made in Europe through the Payments Union.

Certainly, multilateralism was not characteristic of a static order of things but of an economic structure, whose steady development was due to the impulses generated by the cyclical centre. We have already seen how this affected the primary phase of development in Latin America. Let us now briefly examine the influence of multilateralism on reciprocal trade relations between the Latin-American countries. If, in the course of time, one Latin-American country bought increasingly large quantities of goods from another, and the latter bought from the former regardless of the balance of trade, this was not because the one had brought about an increase of purchasing power in the other, which could in turn transmit the impulse so received, for the volume of trade between the Latin-American countries in general has not been sufficiently high to allow for such results. The explanation is rather that the increase of reciprocal buying was derived from the increase in Latin America's exports to the great industrial centres; that is to say, the former converged upon the latter, and through these were set up currents of trade among the Latin-American countries themselves.

This system could develop unhindered whilst the Latin-American countries were able to continue increasing their exports. But when, as occurred in the 1930's, these fell considerably, or at least did not increase at a

rate sufficient to meet the requirements springing from the development of Latin-American economy, serious difficulties began to hamper inter-Latin-American trade. These transactions had, until then, been settled in gold or in other convertible currencies supplied by the industrial Powers. When these currencies became scarce because of the comparative insufficiency of Latin-American exports to the sources of convertible monetary resources—and it became necessary to restrict imports—such restrictions also affected reciprocal trade between the Latin-American countries. This happened even though in these same countries nothing had occurred which itself would have lowered consumption of the goods involved in such trade, at least not to the extent imposed by the restrictions. It thus became necessary to resort in this case, too, to bilateral agreements, in order either to maintain or develop reciprocal trade; this then is a specific example of the general consequences which we were previously examining.

It has been abundantly shown, with the aid of much documentary evidence, that these expedients entail serious disadvantages, especially compared with the multilateral system of former days. Still, as a general rule, these are mere payments agreements arranged temporarily or for particular circumstances, in which there is no perceptible intention of adapting trade in Latin America, especially between those countries with a common frontier, to a permanent pattern adapted to the new conditions of world economy. The analysis of this will be undertaken in the following chapter.

### 13. DISEQUILIBRIUM AND THE CLASSICAL THEORY

We have thus completed the task we set ourselves at the beginning of the present chapter. An analysis of conditions has allowed us to show that Latin America's import capacity has increased less than its population, whereas its economic development requires, on the contrary, that the increase of import capacity should be much greater. Secondly, we have seen that the tendency to a chronically unfavourable balance, deriving from the foregoing fact, cannot be corrected quickly and effectively because of the way in which the principal cyclical centre functions.

The classical monetary theory solved the problem of unfavourable balances by simple means. Disequilibrium demands the export of gold reserves, which causes a fall in prices and lowered economic activity within the country until imports again reach the level of exports. The need to restrict economic activity in order to correct an unfavourable balance, would admittedly seem incompatible with the requirements of economic development. However, according to the same theory, in the countries which become depositaries of such gold reserves, certain reactions take place which tends to re-establish equilibrium, since the inflow of gold causes prices to rise with a consequent increase of imports and decrease of exports, and the process continues until equilibrium has once again been achieved.

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From what has gone before, it is not surprising that the belief in this sort of automatic reaction should have prevailed until the First World War. Nor is it strange that doubts were voiced later with regard to the validity of the theory, especially after the impact of the world economic crisis, when the facts of the situation differed widely from the conclusions it put forward.

It is possible that the confusion which still persists in regard to this subject is due partly to the fact that the influence of the time element on the actions and reactions of the cyclical centre has not been adequately emphasized, as we have sought to do. In concluding this chapter we would merely say that, until the significance and consequences of the material changes which have taken place in the international economy have been fully interpreted, it will be impossible to throw further light on the problems of disequilibrium and its monetary implications.

### CHAPTER III

## THE SPREAD OF TECHNICAL PROGRESS AND THE TERMS OF TRADE

### 1. DYNAMIC SIGNIFICANCE OF THE DETERIORATION OF THE TERMS OF TRADE

In the preceding chapter, we sought to show that the improvement in the terms of trade of the great industrial countries, with the corresponding deterioration in the periphery, has been one of the principal factors responsible for the decrease of the import coefficient of the former. We have also pointed out the adverse influence of this phenomenon on the import capacity of Latin America, which had just reached a point in its economic development where imports tended to increase constantly.

This relationship between the import coefficients of the great industrial countries and the terms of trade is no more than the statement of a fact, whatever interpretation one may wish to place on it. It is, however, a fact which is of the greatest importance to Latin America. One is therefore justified in devoting the present chapter to a theoretical examination of that fact, with a view not only to a better understanding of its nature but also in order to clear away some common doubts and confusion.

This is all the more necessary since we are dealing with a phenomenon which is closely related to the way in which technical progress is spread throughout the world. From the outset, we have stated that it is not possible to understand the problems connected with Latin America's economic development without first investigating this process and its consequences. One of these consequences, without a doubt, is the constant tendency of the terms of trade to deteriorate. This phenomenon is purely dynamic and we hope to prove that ultimately it can be explained by the relative slowness of the world's industrial development to absorb the real or potential surplus of population gainfully employed in primary occupations. Technical progress, as we have seen, tends to decrease the amount of labour engaged in primary production. However, this decrease has been extremely slight over the years. In the meantime, new productive techniques are evolved which make further readjustments necessary in the distribution of employed population.

Thus there is a relative abundance of potential labour in primary occupations, tending constantly to exert pressure upon wages and the prices of primary products and preventing the periphery from sharing with the industrial centres the advantages of the technical progress attained by the

latter. Furthermore, the periphery is unable to retain a part of the benefits of its own technical progress.

## 2. SIGNIFICANCE OF THE PRICE RELATIONS BETWEEN PRIMARY AND INDUSTRIAL GOODS

From the outset one must be careful not to attribute to this statement implications which can only be understood later. Therefore, a short explanatory note will be useful before going more deeply into the subject. If prices reflected only decreasing costs resulting from technical progress, then prices of manufactured goods should fall more than those of primary goods, since as is generally recognized, the increment of productivity is greater in the former than in the latter. The price relation would thus seem to swing in favour of primary production, and its index or that of its equivalent, that is, the index of the terms of trade, would consequently rise from say 100 to 150, if the terms of trade fell, thus indicating that the same amount of primary products as before could purchase 50 per cent more manufactured goods. Primary producers would then be able to share equally with the manufacturers the profits derived from technical progress, as they would be able to purchase larger amounts of higher quality goods. If despite the greater decline in the cost of manufactured goods, the index of the price relation were to remain at 100, it would mean that producers of manufactured goods would have retained for themselves the advantages of greater quantity and higher quality of manufactured goods. Should the index fall below 100, then not only would primary producers not have received any share from increased industrial productivity but they would have been unable to retain for themselves the full profits of their own technical progress, since they would have surrendered a part of it to the manufacturers. This does not mean that primary producers are worse off than they were before. Everything depends on the degree of increased productivity reached and the extent to which it is transferred to industrial manufacturers. If the index falls to 80, for instance, primary producers will be able to obtain 20 per cent less manufactured goods than they did before, for the same amount of primary goods. However, if to obtain that same amount they need work only half as long as before, one hour's labour would now allow them to purchase 60 per cent more manufactured goods, instead of 100 per cent more, as would have been the case had they received the full benefits of their own technical progress; or an even greater quantity had they been able to share in the benefits of technical progress achieved in the industrial sector, should such progress be greater than that achieved in the field of primary production.<sup>1</sup>

The indices given in the preceding chapter seem to indicate that in the past seventy-five years something of this sort has occurred; that is to say, if, as is likely, technical progress in primary production at the peri-

<sup>1</sup> For a fuller analysis of this phenomenon, see "The economic development of Latin America and its principal problems" (E/CN.12/89) page 2.

phery had been less than that of industry at the centre, then the periphery will have transferred to the centre part of the benefits of its own technical progress. Unfortunately, due to the lack of data concerning the increment of productivity in primary production it is not possible to ascertain the extent of such benefits and what part of them has remained in the primary producer countries. We will return to this aspect of the question later. Meanwhile, we shall try to explain the causes of this phenomenon which is so vital in the economic development of Latin America.

### 3. THE REAL OR POTENTIAL SURPLUS OF GAINFULLY EMPLOYED POPULATION AND THE TERMS OF TRADE

We have already stated that a surplus of labour generally exists in primary production and that this excess exerts an unfavourable pressure on primary wages and costs. This tendency derives on the one hand from the relatively large increase of population in the regions of primary production and on the other from technical progress, which reduces the number of persons required to obtain the same quantity of products. The absorption of such a surplus in fact becomes the task of industry and the occupations directly or indirectly depending on the development of industry.

The surplus may either be real or potential, that is to say, it may already have become a reality through the application of new techniques in primary production or occur when new methods are introduced either spontaneously or as a consequence of industry's labour requirements which, by drawing labour from primary production, cause wages to rise and forces an improvement in methods of production. This latter case seems to have occurred frequently in the United States, where industrial areas attract population from the peripheral zones of primary production in the country. A real surplus of gainfully employed population could also occur if technical progress in primary production was not accompanied by either prior or simultaneous development of industry and its related occupations, in which case neither would then be capable of absorbing the excess labour as it arises.

In either case, if the gainfully employed population were perfectly mobile and did not show reluctance or deliberate opposition to migration, and if the rapid development of industry and its related occupations could immediately absorb the aforesaid real or potential excess of gainfully employed, then there would be a marked tendency towards a levelling of primary and industrial wages, even making allowance for differences in skill. Both would benefit from the general increment to productivity if instead of wages rising with the increase of productivity, prices fell together with costs.

However, an examination of the situation in the world as a whole shows that both industry and its related occupations have developed

relatively slowly, so that absorption of the real or potential surplus of gainfully employed population in primary production has been considerable in the great industrial countries; but the process is only just beginning in Latin America and the rest of the periphery.

The large countries, given the present structure of the world's economy, limit the process to their own population. Within their frontiers, industry and its associated activities do not develop in such a manner as to absorb the population of the periphery, so that the peripheral countries have no means of absorbing the surplus of their gainfully employed population except by developing their own industrial activity. It is not possible for them to employ this surplus in expanding primary production since the distribution of the population is not arbitrary but depends on productive technique, as has been pointed out in chapter I.

Consequently, the relatively slow spread of technical progress has weighed more heavily than the factors which tend to distribute its benefits over the world, and the periphery not only has been generally unable to share with the industrial centres in the advantages derived from the technical progress in these centres but has even been compelled to cede to them a part of the benefits deriving from its own progress, due to the insistent pressure of the real or potential surplus of gainfully employed population.

#### 4. DEGREE TO WHICH BENEFITS OF TECHNICAL PROGRESS ARE TRANSFERRED

The magnitude of this cession by the periphery to the centre of a part of the benefits derived from technical progress in primary production is not uniform. On the contrary, the intensity of the movement varies in proportion to the strength of two opposing forces. On the one hand, we have the growth of primary production and, on the other, the demand for primary goods in the industrial centres. Should the latter increase more than the former, the amount ceded decreases; and the centres might even transfer to the periphery a part of the benefits of their technical progress, a phenomenon which would become manifest in the improvement, for the periphery, of the terms of reciprocal trade. However, if demand in the industrial centres increases relatively less than primary production, or is slow to recuperate its powers after an acute depression, the price relation will deteriorate for the periphery, and the degree of its transfer to the centre will increase in inverse ratio to the proportional or absolute weakening of the dynamic industrial factor.

There is, in fact, a dynamic element in industry which is not found to a comparable extent in primary production. The latter, as its name would imply, covers the initial phases of the productive process, while industry accounts for subsequent stages. Because of this relative position of the two activities, the increase in industrial activity stimulates primary production, but the latter has not the power to generate industrial production. When industrial entrepreneurs, stimulated by the normal economic forces,

or by extraordinary factors in times of war, undertake to increase production, demand for primary products increases; as profits are consequently greater, entrepreneurs in the periphery seek to increase primary production. The spontaneous increase of the latter, on the other hand, does not cause a similar rise in industrial demand which would be capable of absorbing that increase, as can easily be seen from the following example. Let us assume, exaggerating the proportions to simplify matters, that in a total selling price of 1,000 units for a finished product, 500 correspond to the periphery and the rest represents values added during the various stages of the productive process corresponding to industrial sectors. Let it further be assumed that the periphery of its own initiative intends to increase its production by 10 per cent, giving its productive factors an added income of 50. To simplify even further, let it be assumed that this increase of income is entirely absorbed by the consumption of finished goods from the centre. It is clear that the demand for such goods will only increase by 5 per cent at most, whereas primary production will have increased by 10 per cent. There would, therefore, be no increase of industrial demand sufficient to absorb the increased primary production and the latter's terms of trade would deteriorate. In actual fact, the share of primary production in the value of finished goods is less than that given in our example and the increase in income is not absorbed entirely and immediately by the consumption of finished goods. In reality, the periphery's influence on the centre would be weaker and the consequent disequilibrium would be correspondingly greater.

The foregoing affords us a better understanding of the effects of increased production in the periphery deriving from either increased population or from improved technical progress, and shows that if such an increase of production is not accompanied by an equivalent increase in the demand for primary goods in the industrial centres, the position of the periphery is weakened and it cannot resist the pressure of factors which tend to take from it the benefits of its own productivity.

##### 5. DYNAMIC IMPORTANCE OF INDUSTRIAL GROWTH

From our remarks concerning the dynamic significance of industrial development, it may be seen that this development affects manufacturing in two ways: first, by what we have called demand from the centre—this covers both raw materials for industry and foodstuffs required by the centre—and secondly, by the absorption of surplus manpower from primary production. Let us now look at this second point.

It has been shown that the centres absorb their own surpluses but not that of the periphery. However, they may have an indirect influence on the number of the gainfully employed in the periphery, through the demand for primary products. If industry and other activities at the centre develop to such an extent that they not only absorb the surplus manpower of their own primary production but also the population which that production requires in order to meet the increased industrial demand,

then the centres would tend to import from the periphery a greater proportion of primary goods to meet the increase of their own requirements. In this way the periphery would obtain relief from the pressure of its surplus population and at the same time the tendency of the price relation to worsen would be checked.

Phenomena of this nature must have occurred in the development of those countries which have now become great industrial centres. But there are other, better known and perhaps more important ways in which industrial development has functioned as a dynamic factor, absorbing surplus population from primary production. It is a well known fact that when the Industrial Revolution was in full swing in the nineteenth century, the European population increased considerably. An increasingly large part of this population was absorbed by industry and other related occupations developing at the time, and the rest was engaged in primary production not only at the centre but also in the new overseas countries which technical progress in transport had thrown open to international economy, especially in the latter half of the century. Large numbers began to emigrate from the older regions of primary production in Europe (which were gradually becoming more and more industrialized) to the newer areas which had become either complements or substitutes in the production of primary goods. If we look at the phenomenon as a whole, however, we perceive that the proportion of persons gainfully employed in primary production tended to decrease whereas that in industry and related economic activities tended to increase. Nevertheless, the decrease was not sufficient to avoid a relative drop in primary prices.

Productivity in the new lands was higher *per capita* than in the older regions, and progress in transport enabled goods from the former to reach the European markets easily and cheaply. It is possible that this increase in production, probably greater than that of demand at the centre, greatly influenced the deterioration of the terms of trade which occurred after the seventies of the last century and continued until the First World War.

Then, as now, the growth of industry probably did not have sufficient impetus to prevent the terms of trade from turning against the periphery. If industry and related occupations at the centres had absorbed the population employed in primary production more efficiently, emigration toward new countries would have been less and consequently they would have had fewer people available to increase primary production; thus primary production would have been in a more favourable position *vis-à-vis* demand from the centre.

A good deal of this will remain conjectural until further research has been undertaken. Nor should we forget that, in the case of some primary goods at least, the increase of productivity indirectly attained when the new countries were opened to world trade by technical progress in transport, may possibly have been greater than that attained by certain indus-

trial sectors. This would not, of course, invalidate the analysis contained in this chapter since, if a part of the benefits of technical progress in primary production in the periphery is transferred to the industrial centres, both when the increase of productivity in primary occupations is greater than in industry and when the increase is less, the reason is probably that the real or potential surplus of gainfully employed population engaged in primary production exerts a persistent pressure on wages and prices.

Not all the countries then opened up to the international economy were predominantly exploited by immigrant labour from the older regions of Europe. In the Latin-American countries with old settled populations that had come to live there before or after the Spanish Conquest, there is more than ample potential labour to work the land, whether in agriculture or mining. For this and other reasons, these countries do not attract immigrants from Europe, or at least not to the same extent as other countries. This fact cannot be overlooked in a study of the variations in the terms of trade of the various primary products, according to the latter's peculiar nature, the type of production and the degree of technical progress. Yet we must disregard it in this summary explanation, which for the moment has no other purpose than to clarify certain fundamental ideas for a better understanding of the problem of terms of trade.

The period during which the new lands were opened up on a large scale in Latin America may be taken as ending somewhere between the First World War and the Great Depression. There are remarkable contrasts between this period and those following. During the latter the deterioration of the terms of trade was much more pronounced than before, since the marked deterioration during the First World War was followed by that caused by the depression. There is not only a transfer to the centre of the benefits accruing from technical progress in transport and other activities which made possible the better utilization of the increased productivity of the new lands, but also a transfer of part of the increase in productivity directly obtained from improved technical methods of exploitation, or perhaps the whole of the increase and more, as may even have occurred in some cases.

Exports, which in the previous period had generally increased more than the population, continued increasing but at a slower rate than the population; the serious consequences of this fact in conjunction with the adverse trend in the terms of trade have been pointed out in the preceding chapter. In addition, income from land, expressed in a constant monetary term, decreased instead of increasing. All these circumstances combine to place an entirely different complexion on the economic development of Latin America compared with the earlier development of other countries.

The dynamic element of the large centres no longer functions as it did during the decade of the Great Depression and, in primary production the surplus population is distinctly noticeable; an imperative need is felt to supply the deficiency of that traditional dynamic factor by means of a

new one springing from the growth of domestic industry. The extension of technical progress in Latin America thus enters a new stage.

#### 6. LAND RENT AND WAGES IN THE DEVELOPMENT OF THE PERIPHERY

In this first analysis of the terms of trade, it can be stated that in Latin America the export industries to which these terms relate have, as a general rule, kept wages at a fairly low level compared with wages at the centres, even in cases where there has been an appreciable increase of productivity. We should not forget, however, that there have always been marked differences from country to country and that in recent times, increases have been achieved where the organization of labour and other favourable factors made them possible, as will be shown in another chapter. A number of factors account for such differences between the wage levels, among these the extent to which the industrial development of each country has progressively absorbed the surplus population and tended to raise wages relatively when competitive conditions in the international sphere allowed.

The fact that wages have remained at comparatively low levels during the primary development of the Latin-American periphery does not mean that technical progress has not been able to increase other sources of income considerably. In those areas which are opened up to agricultural or mining exploitation, a sharp increase has occurred in land rent, whereby the value of the land itself, previously worth little or practically nothing, was greatly enhanced. The rent of the economically new lands is, in the last analysis, the expression of their greater productivity as compared with the older lands. Technical progress in transport is largely responsible for this increase of land rent. A part of the benefits derived from this progress remains in the hands of the landowners whilst another part flows into the industrial centres, by means of a relative lowering of prices.

The social and economic repercussions of this fact are indeed vast, as increasing returns from the soil impart a very special form to the penetration of capitalist technique in the export industries of the peripheral countries.

The relatively low level of wages in primary production was therefore compatible with the high increase in land rent, to the advantage of certain social classes.

Thus we find considerable sources of income springing up during the primary development of certain countries in which more advanced forms of economic development may later thrive, whereas in other countries, even though land rent also greatly increases, an appreciable part of the increase flows into the industrial centres, especially in the development of certain mining enterprises.

### 7. TERMS OF TRADE IN THIS NEW STAGE OF EXTENSION OF TECHNICAL PROGRESS

It was shown in the first chapter that technical progress had been predominant in Latin America's primary export activities, though with varying intensity. There is still much room for technical improvement in these occupations. But if present economic conditions continue, it is possible that these improvements would not guarantee the permanent raising of the wage levels. On the contrary, wages might even be lowered and a large part of the profits derived from technical progress lost, if the surplus population created by these very improvements cannot simultaneously be absorbed into industry and its associated occupations.

Still, the periphery is immense and the population which will have to be absorbed by its industry and associated occupations as modern technique expands is also large. If a country determined to raise its wage levels by increasing the productivity of its export occupations and absorbing into industry the surplus of gainfully employed population accruing therefrom, it might be seriously hindered by other countries, also engaged in improving their techniques, but making no effort to raise the very low level of their wages.

This might be the case for areas which are at present engaged in a process of primary development similar to that which occurred about the middle of the last century in the Latin-American periphery. In these areas there is no industrial development to absorb the surplus population and this lack may contribute to the maintenance of low wage levels. This is one of Latin America's most serious problems, especially owing to its influence on the phenomenon described above, which occurs in the terms of trade of certain outstanding products.

The same thing does not occur in the case of primary production for domestic consumption in these same countries where, in general, little technical progress has been introduced, as compared with export industries. It is obvious that if the surplus of gainfully employed cannot be absorbed there, prices will drop as productivity rises, to the advantage of other social groups. But in this case the phenomenon can be counteracted by the development of industry and its related occupations, ensuring that primary producers obtain all the benefits deriving from technical progress without interference from competitor countries.

Nevertheless, even in the case where the benefits of technical progress in export industries flow abroad, a net increase of income would be possible by employing in industry and its associated occupations the surplus of labour created by technical progress in primary production. In other words, despite the possible deterioration of the terms of trade, the peripheral countries can obtain for themselves the full benefits accruing from technical progress in primary production for the domestic market, as well as from technical progress in industry, as applied to the surplus gain-

fully employed population. But it is obvious that the net increase in income will be proportionately greater in accordance with the country's ability to counteract the tendency of the terms of trade to worsen.

#### 8. ANOTHER FORM OF TRANSFER OF BENEFITS OF TECHNICAL PROGRESS

At the beginning of the present chapter we cautioned against any indication, without further study, to attribute to the terms of trade any implication other than a mere statement of fact. The preceding analysis now permits us to study such implications, beginning with those which seem unacceptable.

In the first place, let us take the ethical implications. The fact that the centres tend to retain the benefits derived from their own technical progress does not mean that they are taking possession of something that does not rightfully belong to them. From the ethical standpoint, there might be more than one justification for this procedure. However, this point is irrelevant to this report. Our purpose is rather to point out that this method of taking possession of those benefits was not envisaged in doctrines of great influence on certain currents of economic thought. According to them the benefits accruing from technical progress should flow equally to the whole community in the form of lower prices or increased incomes. This is what has, in point of fact, generally taken place; but only in the industrial centres where the benefits of their technical progress remained. The same theories furthermore assumed absolute mobility of factors and products, and the abstract world of this assumption is substantially different from the one in which we live. It would, therefore, be necessary to revise the theory *ab initio* before applying it to the study of problems of economic development in the periphery. If the world division of labour had been effected according to this theory the distribution of economic activities throughout the world would perhaps have been very different from what it is today and the problems presented by the differences in the rate of increase of productivity and income which so profoundly affect the world economy would not have assumed their present proportions. The difficulties would have been of another kind, perhaps far more serious than those with which we are now faced.

This same difference between the abstract world of absolute mobility and of levelling tendencies, on the one hand, and the complex reality of the present economic organization, on the other, makes easy comparison impossible between results which, in given circumstances, would correspond to that theory and those which are, in fact, observed.

It might be argued that, if the centres did not retain the benefits of their own technical progress, every peripheral country would be able to attain far higher terms of trade than at present and its income level would approach that of the centres. But it might similarly be contended that the peripheral countries derive a lower income than that of the centres from their export industries because their productivity is lower.

According to the above-mentioned theory no country, region or industry could maintain itself in a state of absolute mobility of the factors of production if its technique were inferior to that of other countries, regions or industries, since it would no longer be able to export and its factors of production would be transferred to other countries, or else to other regions or industries in that same country.

Furthermore, according to the same theory, if the benefits derived from technical progress flow from one party to another, similarly benefits derived from great productivity in the latter must flow towards the former. There is reciprocity in this movement and in no case could the transfer be a premium on inefficiency in production.

Since the theory must not be applied only in part, we will do no more than keep it in mind as an aid to understanding the differences between the facts and its assumptions in order to acquire wider knowledge of actual conditions.

#### 9. CONCLUSIONS DRAWN FROM THE PRECEDING ANALYSIS

The foregoing leads to a first conclusion. The theory as outlined above assumes reciprocity of transfer whereas, in fact, such reciprocity does not appear to exist. Given the dynamic changes which are constantly taking place in the world economy, the slight mobility of the factors of production and the slow development of such occupations as can absorb the surplus of gainfully employed persons, the periphery tends to transfer a part of the benefits accruing from its technical progress to the centres whilst these latter retain their own benefits for themselves. The more the periphery seeks to increase its productivity, thus aggravating the surplus of its gainfully employed persons, the more intense will be the transfer, other things remaining equal. Therefore, in order to raise the income level in primary production in Latin America it is not sufficient merely to increase productivity; it is also necessary to absorb the surplus of gainfully employed persons in expanding industry and allied occupations.

There is also a second conclusion to be drawn in relation to the economies of developing industry. The argument demonstrates, with unimpeachable logic, the economic advantages to be derived from a natural division of international labour, given perfect mobility of the factors of production. It is evident that, if a country obtains all the advantages of technical progress achieved by other countries and in return affords them the advantages of its own productivity, it will not obtain any additional advantage if, by means of protective measures, it engages in the production of goods already produced by others. On the contrary, it can be proved decisively that economic losses will follow. However, if there is not absolute mobility of the factors of production from country to country, the development of industry may contribute to bring incomes in the primary producer countries up to the level of industrial countries. In so far as this occurs there will be a net profit for the primary producer.

Nevertheless, in order that this levelling may take place, it would be necessary for other competitor countries in primary production not to force competition in their own favour by lowering wages. That is precisely the great difficulty facing the periphery, as has been indicated elsewhere in this chapter. But there is another source of net profit which is less problematic, since industry and its allied occupations add a net increase to incomes previously earned when employing the surplus population formerly gainfully employed in primary production and dislodged therefrom by technical progress. This increase will be proportionately greater as the productivity of the new industries reaches that of those industries in the countries which are more advanced technically and it represents a net profit even though productivity be inferior. Consequently, owing to the lack of international mobility of the factors of production we have to measure economic advantage in development of the periphery, by standards different from those possibly suggested by the above theory.

The third conclusion relates to the way of extending technical progress. In the theoretical argument we have been examining, the fact that a group of occupations increases productivity presupposes that the resultant lowering of prices will immediately benefit all other activities, creating an additional margin of income available to increase demand or savings. But in fact, if prices do not fall in the large centres as productivity increases and income rises, then greater demand and savings capacity will be developed only in the centres. This would mean that the peripheral countries have, on the one hand, remained unaffected by such advantages while, on the other, they are faced with the problem of assimilating an advanced industrial technique which requires extensive development of both demand and savings. But this point will be dealt with in another chapter.

To sum up, the discrepancy between the theoretic argument based upon absolute mobility of productive factors and the realities of economic experience is so significant for the theory of economic development in Latin America in particular, and the periphery in general, that we shall have to overhaul our theories thoroughly. A revision of this nature, being based upon premises closer to reality, will help us to state, on sound premises, the essential lines of a policy of economic development.

#### 10. THE ECONOMIC CYCLE AND FLUCTUATION OF TERMS OF TRADE

In reviewing the theory, from the point of view of the development of the periphery, the study of the economic cycle must be given special consideration. Even though the low mobility of the factors of production as technical progress spreads suffices to explain the great differences between incomes at the centre and those of the periphery, these differences are created precisely during the cyclical movement. In other words, the cycle has, in fact, been the mode of growth of the capitalist economy. These phenomena are of great interest to the Latin-American countries, and hence we shall consider some of them in concluding this chapter.

It is a well-known fact that, during the cycle, prices move in favour of primary products during the upswing but, during the downswing, generally tend to fall more than they had previously risen. Thus, as the price level falls during each depression more than it had risen during the preceding period of prosperity, we find that over a number of cycles, there is a continuous tendency for the terms of trade to worsen, as has been shown above.

These periodic falls in the price relations are the result of the way in which, in cyclical downswings, the benefits of technical progress are transferred from entrepreneurs to their social groups. During the upswing, despite increased productivity, prices rise and the profits of the entrepreneurs rise concurrently. If increased productivity brought immediate improvements to wages and salaries, these would have to rise more than prices. This does not usually occur during the upswing, when prices frequently rise more than wages so that the benefits accruing from technical progress remain in the hands of the entrepreneurs. It is during the cyclical downswing that these benefits are transferred to wages, which decrease less than prices, thus establishing a more favourable relation for wages; and greater advantage is taken of this as a new phase of prosperity absorbs the unemployment which marks the cyclical downswing.

In other words, during the depression, wages lose only a part of the benefits obtained during the period of prosperity and thus can reap the benefits of technical progress. Naturally, the whole of the benefits does not go into wages. The State has been taking an increasing proportion of the benefits derived from technical progress and so has been able to widen the scope of its activities. Other social classes also take their share, to a greater or lesser extent, and, furthermore, as competition between entrepreneurs is limited, these are left with a greater share than they would otherwise have had. However, we are not concerned with the distribution of benefits in the centres but rather in the sum of the respective increments of productivity which remains there, as compared with that remaining in the periphery.

Let us assume that after a period of depression, the net increment to income at the centres is equivalent to the increase of production obtained by greater productivity. It is evident that if the full benefits remain in the centres, the periphery will obtain no share at all. Now let us assume that the net increase in income at the centre is greater than the increase of production there; this would mean that the periphery must have transferred part of its increased productivity to the centre and even part of the real income which it formerly enjoyed.

The question now arises: What are the forces which allow the industrial centres to exert such pressure on the periphery, retaining the profits of their own technical progress or even taking possession of part of the benefits accruing to the periphery?

To answer this question, let us recall some observations made in a previous document regarding certain manifestations of cyclical phenomena at the centres and in the periphery.<sup>2</sup> During the cyclical upswing, demand for finished goods in the centres is greater than supply. There exists, therefore, an excess demand increasing profits for the entrepreneurs and giving rise to other phenomena; these phenomena in which the periphery plays an important part, eventually transform this excess into shortage and so lead to the cyclical downswing, wherein demand becomes less than the aggregate supply price of finished production. As the value of the aggregate supply, swollen by the higher profits of earlier stages in the productive process, cannot be easily reduced by lowering prices, stocks of finished goods temporarily unsaleable at those various stages are accumulated.

Then a series of reactions follows which tend to lower the aggregate supply price until demand once again begins to absorb current production.

This way of decreasing the aggregate supply price of finished goods is of great importance to the periphery. In fact, this price, as mentioned before, was augmented at the centres by the addition of profits. However, some of these were converted into increases in wages and other forms of income. For the sake of brevity, and to avoid entering upon any unnecessary complexities, we will refer merely to the increase of wages, this being the more significant phenomenon. If the aforesaid decrease in the supply price were affected in proportion to increases of profits and wages, which had previously raised that price, one would simply return to the point of departure, and both the centres and the periphery would share equally in the benefits of technical progress, whatever their amount in either place.

However, this is not the case, owing to the mechanism of the cyclical downswing and the nature of the forces affecting it. The accumulation of surplus stocks causes the sellers of finished goods to scale down their demand for the goods of their immediate suppliers; these in turn scale down their requirements of the goods of their suppliers, and so on to the stage of the entrepreneurs of primary production in the periphery. In each of these stages, through which the cyclical downswing is transmitted, employment and profits decrease.

It is a recognized fact, however, that at the centres there is great resistance to any lowering of wages, despite unemployment, and in some sectors to the reduction of profits. This constitutes an obstacle to the lowering of the part of the aggregate supply price accounted for by the centres and when it cannot take place to the extent necessary to bring it nearer into line with aggregate demand, surplus stocks will continue to accumulate. It then follows that the greater the volume of these surplus stocks, the greater the need to curtail production and therefore, the demand for primary products: and the greater the fall in the price of these primary products.

In the periphery, lower prices for primary goods naturally mean lower profits and adverse pressure on wages in communities in which labour

<sup>2</sup> "The economic development of Latin America and its principal problems," *op. cit.*

organizations, where they exist, are far less powerful than in the cyclical centres.

The greater part of production costs corresponding to the stages completed in the industrial centres is made up of the wages paid at those stages. Therefore, the fact that wages suffer a relatively small decrease means inevitably that it is for the periphery to reduce the aggregate supply price, so that the greater the wage increase during the cyclical upswing and the more rigid wages become during the downswing, the greater will be the pressure exerted by the centres on the periphery, through the reduction of their demand for primary goods and the consequent lowering of the price of these goods.

This occurs, other factors which influence the intensity and duration of the cyclical downswing remaining equal. For instance, if during the upswing, only a relatively small part of the profits has flowed into wages, the fact that during the downswing profits may become inelastic would have even more serious consequences than the rigidity of wages, since the former, during the depression, are the most important source of hoarding, to the detriment of demand.

Having made this qualification, let us continue the analysis. If, on the one hand, at the centres we have this relationship between the net increase in wages and their resistance to decline, and, on the other hand, we have the intensity of the pressure exerted by the centre on the periphery, it is not difficult to understand that if the net increase of wages is greater than that of productivity, in accordance with a previous assumption, then pressure on the periphery will be so great that the lowering of prices will take from the periphery an ever-increasing share of the benefits of its own technical progress, or even more, as has been shown above.

How far does experience show that the periphery can resist this pressure? There have been cases in which large stocks of primary products have been accumulated in the periphery in preference to selling at prices considered too low. But when the periphery resists the constriction of its own supply price, the total supply price of finished goods at the centre does not fall sufficiently to eliminate the difference between it and demand. Hence stocks of finished goods as well as of those being manufactured continue to accumulate and there is a steeper decline in the demand for primary products.

Though this explanation is fairly general and each individual case would have to be examined separately, the Great Depression of the 1930's showed clearly that the pressure on the primary producer countries can be so great as to compel them to devalue their currency in order to be able to adapt themselves to the fall in prices imposed by the decrease in demand at the cyclical centres. In this way, the whole population is affected by the consequences of a readjustment which would otherwise be catastrophic for those who derive their income from primary production.

It would not be admissible to generalize this inference and argue that the chronic tendency towards monetary depreciation, recorded in the annals of some of the Latin-American countries, can be attributed to the peculiar manner in which this reduction in selling prices occurs during the cyclical depressions. But neither would it be reasonable to suggest that financial upheaval and the resulting inflation are exclusively to blame for that phenomenon, without admitting the influence of the pressure which is automatically brought to bear on the periphery during the cyclical downswing. The whole problem offers a most interesting field for study.

It is evident that if there had been notable increases of productivity in the periphery, this area would have been better prepared to withstand the effects of such pressure by surrendering to the centres the benefits recently acquired through increased productivity. But if there were no such advantages, the periphery would find itself compelled to surrender a part of the benefits acquired in the previous phase of development. This is precisely one of the reasons why the world economic crisis affected Latin America and other peripheral countries so seriously. Depressions prior to the First World War had been shorter and far less intense. One must go back to the seventies of the last century to find as long a depression, though less intense. However, the downswing of the seventies coincided with a period during which Latin America was rapidly increasing its indirect productivity, by incorporating new areas into international productive activity, as we said earlier. There was, therefore, a wider margin of benefits derived from technical progress in the periphery to be shared with the centres.

Here we have another case where the course of events subsequent to the world economic crisis, when contrasted with those leading up to it, offers us a better vantage point from which to analyse the problem of economic development in Latin America. Yet this is not the only important comparison, as was shown in the preceding chapter.

## CHAPTER IV

### CONTRASTS AND DIFFERENCES IN THE PROCESS OF ECONOMIC DEVELOPMENT

#### 1. HIGH DEGREE OF CAPITALIZATION AND LOW LEVEL OF INCOME

We have defined the economic development of Latin America as a new stage in the world-wide extension of the capitalist technique of production. To a certain extent, we are now witnessing a process similar to that which took place in the nineteenth century, when countries which today are great centres began their industrial development. The phenomena are not, however, identical, for conditions of the international economy which now prevail are, as has already been shown, very different from those which obtained then; the later phenomena present unique characteristics which had no cause to develop in the earlier centres, at least not in so manifest a form. We shall consider this aspect of the problem in the present chapter.

These peculiar characteristics are, in fact, the expression of the contrast between the very advanced stage of capitalist development in the great centres and the pre- or semi-capitalist state of a considerable part of Latin America.<sup>1</sup>

Contrasts of this type are due to the long time which has elapsed since the Industrial Revolution. They could not have arisen at the beginning of the process, since conditions in the countries which followed the example of industrialization set by Great Britain were very similar to conditions obtaining in the latter country. At that time, capitalist technique was only beginning to develop and the British national income had hardly increased. Furthermore, all these countries founded their new-born industry on the solid historic base of an artisan class.

Industrial progress since then has been very great and consequently has widened the gap between the highly developed centres and the peripheral countries, in which modern technique generally has only been introduced into export activities. In the more highly developed countries, productive technique requires a high capital investment per man employed. However, the gradual increase in productivity brought about by this technique

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<sup>1</sup>Of course, many intermediary stages occur in Latin America in the industrial sectors which, so far as productivity is concerned, are closer to the great centres than to other Latin-American sectors where production is primary and productivity extremely low. Therefore, in examining the concrete facts we must keep in mind the different stages of evolution in Latin America.

enabled these countries to attain a high level of *per capita* income, so that they could effect the savings required to create the needed capital. On the other hand, savings are low in the majority of the Latin-American countries because of the low income level. When the great modern industrial centres were in a position comparable to that of present-day peripheral areas, and the *per capita* income in these centres was relatively low, productive technique also required only a relatively small capital investment per man. Careful study shows that savings are neither great nor small of themselves, but only in relation to the density of capital, determined by technical progress. In this sense, savings in Latin America are, on the whole, very small in comparison with the requirements of modern technique. Certainly in the early stages of the Industrial Revolution of the great centres, voluntary savings were not very great either, but neither did technique at that time require the large capital coefficient per man needed nowadays. Technical improvements were only brought into use as increases in productivity, income and savings made them economically possible and practical. In other words, one must go back several decades, if not a whole century, to find *per capita* incomes equivalent to those generally obtaining in Latin-American countries nowadays.

In that period capitalist technique was still in the first stages of its development, whereas now it manifests itself in a high degree of capitalization, not easily within the reach of the scanty savings that can be put aside out of the low incomes prevalent in Latin America. It follows, therefore, that the later modern technique is introduced into a peripheral country, the sharper will be the contrast between its low total income and the large amount of capital necessary to increase this income rapidly; so that, had similar contrasts appeared in the development of the great centres, they would have been less sharp than those observed now.<sup>2</sup>

Consequently, countries which have recently begun their industrial development have, on the one hand, the advantage of finding a degree of technique in the great centres which required time and sacrifice to acquire; but on the other hand, they encounter all the disadvantages inherent in lagging behind in the course of evolution.

## 2. LOW INCOMES AND INSUFFICIENT DEMAND

Another important consequence of the disparity between the degree of growth of income and that of productive technique is the low level of demand which generally characterizes the greater part of the Latin-American populations, despite their numerical size. Not only does lack of capital or of skill in managing it stand in the way of the adoption of advanced methods of technique but, in addition, low demand makes it

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<sup>2</sup> Situations similar in this and other respects may have occurred in the economic history of Japan; it would be very interesting to compare them with conditions in Latin America.

impossible to reap the benefits of mass production. Industrial development in the great centres cannot have been hindered by limitations of this kind. There, the originally low income coincided with production on a correspondingly small scale. This scale grew in time, as greater productivity raised incomes and, with them, demand, which in turn absorbed the larger, better and more varied production.

The situation is very different in the countries which are now adopting modern industrial technique. Here demand is low because productivity is low; this is so because weak demand in its turn impedes, along with other factors, the utilization of more advanced technique.

Nevertheless, in large industrial countries, such as the United States for instance, there are regions which began to industrialize at a comparatively late stage in their development. One may ask if they, too, faced the problem of low demand, as does the Latin-American periphery. The answer is not without interest since it shows us another of the consequences of the distribution of the benefits of technical progress. It is a known fact that the great mobility of labour in the United States tends to make all income rise as productivity increases, so that income rises not only in those occupations where technical progress is greatest, but also in those where it is low or non-existent. The increase of income is, therefore, a general phenomenon which occurs in all sectors of the country, as envisaged by the classical theorists. When productivity is increased in the industrial areas, for instance, the resultant increase of income is extended to others and, therefore, the capacity to increase demand develops not only in those areas but spreads throughout the whole country and the whole economy. The same may be said of the capacity to save, and as both these capacities are essential elements of industrial development, it is not surprising that industry has not remained within the limits of its original areas but rather has gradually extended in different directions. If the original areas had been able to retain all the benefits of technical progress, there would have arisen a growing disparity between the income and consuming and saving capacity of those areas and the corresponding factors of the periphery; and the latter would probably have been faced with problems similar to those arising today in the international periphery.

### 3. TECHNICAL PROGRESS AND UNEMPLOYMENT

It is also a well-known fact that one of the greatest spurs to technical progress in agriculture and other forms of primary production in the United States has been the increase in wages deriving from constantly increasing industrial productivity. The development of manufacturing and other similar activities, as has been said before, absorbed a growing portion of the increasing population, compelling primary production constantly to improve its technical methods. Thus technical progress in agriculture was to a great extent the consequence of industrial development. Agriculture

in Latin America also requires considerable technical progress if it is to raise the standard of living of the masses. But if this meant that industry was going to suffer, we would be faced with another phenomenon which did not occur in the development of the great industrial centres. There, industry furnished the stimulus for technical progress in agriculture, as has just been indicated, whereas in Latin America progress would spring from agriculture itself. It is not difficult to foresee the consequences of this in the hypothesis under consideration if the unemployed workers from the land are not absorbed by industry and other occupations, as they are in the centres. The unemployment caused by technical progress would prevent the raising of wages, and might even lower them, and the benefits of such progress would be lost in a fall in agriculture relatively to other prices, for reasons which we need not repeat in view of the explanations contained in chapter III.

These unfavourable influences on employment and wages have often led to reactions adverse to technical progress in the development of the great industrial Powers. Nevertheless, this same technical progress, by requiring increasing capital investments, develops in these countries a powerful factor of absorption of unemployed workers through development of capital goods industries. Thus we see that technical progress creates unemployment but at the same time tends to reabsorb the displaced workers by means of increased investments. Such was the function spontaneously discharged by investments in the development of the industrial centres, at least until the world crisis.

The element of expansion, the effects of which are felt in all sectors of the economic activity of the great centres, is lacking in the peripheral countries; consequently their exports are not sufficiently great to offer gainful employment to those unemployed as a result of technical improvements. It is not surprising, therefore, that the fear of unemployment is ever present and that it sometimes takes the form of stubborn hostility to the use of more advanced capital equipment, the immediate consequence of which is to reduce the labour requirements of primary and industrial production. The absence of this spontaneous element of development does, in fact, lead to extraordinary conditions. In the periphery, technical progress is accompanied by unemployment as in the great centres, but the demand for capital goods inherent in such progress does not operate, in the former as in the latter countries, since there are no capital industries. Consequently, this demand, instead of being reflected in the economy of the developing country, transfers its effects to the industrial centres where such goods are produced. If these centres do not compensate for this demand for their products by means of a corresponding increase of their imports from the Latin-American countries, the unemployment caused by technical progress will persist unless it can be countered by a policy of economic development. This is another of the fundamental

differences in the various ways in which economic development affects the centres and the periphery.

#### 4. AVAILABLE CAPITAL AND THE EXTENT OF ITS UTILIZATION

The problem is more involved than would at first appear and certainly deserves more careful study. In nearly all the Latin-American countries there are frequent examples of production employing antiquated machinery, already obsolete in other countries where it has been replaced by other and more productive machinery. If this modern machinery could be introduced into important sections of primary and industrial production and transport in Latin America, increased productivity would cause the formation of an additional surplus of labour. The employment of this surplus would require a capital investment per man equal to that obtaining in the modernized sections, making allowances of course, for the difference in the nature of the occupation. The same requirements would prevail if technical progress were similarly to be extended to all the economic sectors. At this point a very serious problem arises. Would there be sufficient capital for the thorough equipment of all the sectors? If there were not, and the capital available were only sufficient to allow of an investment per man much smaller than the desired figure, how could the existing capital best be applied in order to obtain the greatest net increase of production, that is to say, of the real total income?

A problem of this nature could not have arisen in identical terms in the great industrial countries by reason of the continuity of their development, as we shall now try to show. It is recognized that modern equipment which requires a greater capital outlay per man is only economical when the total amount paid in interest and amortization is less than the amount whereby the new equipment reduces other costs. For brevity's sake, let us say the amount whereby it reduces labour costs. The progressive rise in wages was perhaps the most important factor in establishing the economic advantage of increasing the capital investment per man by successive technical improvements. Once the new capital outlay had been absorbed, and because of the new level of wages, it would not have been economic for a new undertaking to make lower capital outlays since these would have resulted in a lower wage level.

On the other hand, as the mobility of the factors of production extends wage increases to other occupations, it seems inconceivable that, in the long run, certain industries should raise the capital investment per man considerably by making use of increasingly modernized equipment whilst others continue to operate with a relatively lower capital outlay. The greater the mobility of the factors of production, the more closely will the development of the different types of economic activity be correlated with capital outlay per man employed.

### 5. OPTIMUM USE OF CAPITAL IN THE PERIPHERY

When we look at the relative development of an industrial centre and of a peripheral country we find that the same does not hold true. The fact that, at the centre, new capital outlay is more economical because the additional saving in labour more than compensates for the corresponding cost of amortization and interest does not mean that the same would occur in a peripheral country where wages are lower and where equipment must be imported from the centre. In the centre, the cost of the machinery is determined by wage levels similar to those of the labour saved, while in a country where wages are lower than those at the centre, the total saving will be proportionately less. In other words, the peripheral country imports capital equipment manufactured at high wage rates in order to obtain a lowering of costs computed in low wage rates.

Furthermore, the relative abundance of savings at the centres enables them to obtain the amounts necessary to achieve a high density of capital per man without putting too great a strain on the interest rate. In countries where savings are scarce, an increase in the density of capital would cause a considerable rise in the interest rates. Thus in the peripheral countries, the cost of capital rises more than at the centres, as the density of capital per man increases, while at the same time the reduction in the cost of labour is less, on account of the lower wage level.<sup>3</sup> Therefore it appears that the optimum combination of labour and capital equipment in the less developed countries requires a lower density of capital per man than in the highly developed industrial countries; the greater the differences between the respective wage and interest levels, the lower should be the degree of capital density, other factors remaining equal. We will not consider these here in order not to complicate the problem further.

The foregoing analysis enables us to answer our earlier queries. Let us take a country where the average optimum density of capital is half that of a developed industrial centre; this average is obtained by the combination of the optimum densities in the various industries and occupations, densities which differ more or less from their counterparts in the centre according to their individual characteristics. According to common theoretical beliefs, in each of the optimum densities the last increase of capital in any investment should lead to a marginal increase of production equivalent to that of outlays in other economic sectors and also equal to the cost of the amortization and interest corresponding to the capital increase. If the density of capital is increased further and goes beyond the optimum, its cost will be higher than the new increases of production and hence would not be economical. Thus, to go beyond the optimum degree in a given industry, in order to reach the optimum

<sup>3</sup> When inflation occurs, the collective cost to the people rises in proportion to the amount of forced savings imposed upon the population.

level obtaining in the centres, would not be to the good of the general economy, since there would be an excess of capital in industry and a shortage of it in other occupations; consequently, the total production would be lower than could be obtained by means of an optimum distribution of capital. These then, are more of the characteristic differences between economic development in the periphery and at the centres which, though of considerable influence, have not yet been studied with the attention they deserve.

#### 6. DISTORTION IN THE OPTIMUM COMBINATIONS

This simple theoretical presentation does not by itself throw enough light on the realities of the Latin-American problem. The factors affecting the optimum arrangement are hidden or distorted by others, among which inflation is perhaps the most important.

In order to understand this aspect of the situation, let us analyse a very simple example. Let us assume the case of an industry in which new capital investments are required in order to meet growing demand. Our entrepreneur is faced with two alternatives, both of which would enable him to obtain the same additional increment of production. One solution requires him to employ 3,000 labourers and invest a capital of 6 million units. The other means employing only 2,400 labourers but requires the investment of 18 million units. In either case he must have recourse to the market to obtain his capital. The annual wage per labourer amounts to 2,000 units and amortization and interest amount to 10 per cent. The second solution means the utilization of an extra 12 million units of capital, which exactly equals the saving on labour. Therefore, both alternatives represent equal production costs and, consequently, equal profits. However, since the entrepreneur must obtain his capital from the market, in the favourable event that he can obtain the larger amount required at the same rate of interest, he will nevertheless prefer the first alternative, since with a debt which is only one-third of the other he can obtain the same production and identical profits.

The situation would be very different if the same entrepreneur had previously obtained high profits through inflation or if imports of the goods he manufactured had been restricted either on account of currency shortages or for some other reason. If the profits accruing to the entrepreneur were sufficient to cover the amount required by the second solution, he might well adopt it, since besides obtaining profits equivalent to those deriving from the first alternative, it would represent a profitable investment for his surplus capital and he could retain for himself the interest and amortization which otherwise he would have to pay to a third party.

It is true that in this case the entrepreneur could combine it with the first alternative, using the surplus profits in making interest-bearing

loans, but he would hardly wish to be a creditor at the height of an inflation and would therefore probably adopt the second alternative.

If there are other industries equally accessible and yielding greater profits, it is obvious that the entrepreneur will prefer to invest his capital in them. However, he will probably be faced with situations similar to the one described above; and in this eventuality he would probably again be inclined to an over-investment of capital.

Could there, however, be over-investment of capital if this phenomenon occurred, not just in certain industries, but generally in the whole range of economic activity? Could not a general increase of productivity be obtained in this way, approaching that of the great industrial countries, which would make it possible to raise the wage level and so justify a greater density of capital investment per man? It is precisely this which it is difficult to foresee in Latin America for the following reasons.

In the first place, inflation and import restrictions do not affect all occupations equally. Profits are therefore not strictly proportionate to the real increase of productivity obtained by the latest capital investments, but to the extent to which this and other factors affect each occupation, so that investments do not correspond to a rigid concept of productivity essential to the optimum distribution of available capital. Thus investments are made which yield greater profits and for which *ipso facto* greater amounts of capital become available. This undoubtedly creates a propitious field for over-investment, with an artificially high density of capital. On the other hand, there are occupations which, because they were not protected by restrictions on imports or inflationary deviations of demand, yield much lower profits and, though a larger investment in these might lead to greater productivity, the incentive and the resources available are, in this case, much smaller than in the preceding example. In the same way, there are very important activities, such as transport, for instance, which because they do not share in the high profits accruing from inflation, so far from attracting new capital, actually lost capital.

Hence the increase in the density of capital in certain occupations does not necessarily mean a general increase in all of them approaching the optimum density of capital of the larger countries. It signifies rather a definite distortion in the series of optimum combinations suitable for a developing country.

#### 7. OVER-CAPITALIZATION AND THE TERMS OF TRADE

On the other hand, most of the Latin-American countries, as mentioned before, are contending with the serious problem of supplying an adequate density of capital to the mass of the population which is still in a pre- or semi-capitalistic state. This is an essential factor and hence we are inclined to ask if productivity would not be stepped up more by a national distribution of capital among the sectors where productivity could be

considerably increased, rather than by concentrating the density of capital in certain activities which are over-stimulated by inflation and restrictions.

Again, in the extreme supposition that it were socially possible and advisable to create the necessary savings by means of inflation, the enormous amount of capital needed in these countries to increase its density rapidly would create insoluble problems of foreign transfer.

Most of the capital goods must be imported, and no matter how much domestic consumption is restricted and the population compelled to save, the foreign exchange deriving from exports would soon be insufficient to cover the demand for capital goods, as well as other essential imports. The monetary aspect of the problem of expansion and capitalization need not concern us here. It will suffice to note other characteristics which occur in the development of the Latin-American countries. This should serve as another reminder not to examine these problems as if they were similar to those which occur in different types of development.

There are two obstacles in the way of the formation of capital, which have just been indicated: the domestic accumulation of sufficient savings, and the limited capacity of exports to pay, to the necessary extent, for imports of capital goods. If this limitation were to be abolished and exports forced by monetary devaluation or other means, in order to import more capital goods, the terms of trade would inevitably deteriorate because of the factors analysed in chapter III.

Capital formation in the countries which are now great industrial centres does not seem to have encountered obstacles of this nature. On the one hand, a considerable part of their capital goods are manufactured in their own economy, so that even forcing the process by means of inflation did not imply the same external consequences as in the Latin-American countries. On the other hand, when the centres were compelled to expand their exports in order to cover shortage in the domestic production of capital goods, they exported manufactured goods under far more advantageous conditions than those obtaining in countries of primary production, since by exporting manufactured goods they were able to retain the benefits of technical progress more easily in the form of higher income. The goods manufactured as a result of the investment of this high income were exchanged for capital goods, also deriving from the investment of equally high incomes. This is the opposite of what occurs in the periphery. Furthermore, in exporting these goods the countries of the centre generally met with a very elastic demand, since the increase of real income in the various industrial countries was accompanied by a corresponding increase in reciprocal demand for these goods, as can be seen from the statistics showing the growing industrial trade of these countries before the First World War. Consequently when one of the countries of the centre exported in order to be able to import capital goods, there was no adverse effect on its terms of trade.

The position of the Latin-American countries as exporters of primary products, raises the problem of partial over-capitalization, or of the rapid increase in the density of capital, which will repay careful study as regards both fact and theory. The forcing of exports in order to capitalize to an extraordinary degree, in the absence of foreign investment, might lead a country to sacrifice its real income unnecessarily precisely when it had intended to increase it. In fact, if the process is carried to excess, the additional labour employed in order to increase exports at lower prices might be less productive than if it had been employed in producing for domestic consumption, with a lower density of capital than that proposed to be attained by force. In other words, an uneconomic increase of density of capital might result owing to the deterioration in the terms of trade caused by the additional exports.

All these differentiations which mark Latin-American development are, in the final analysis, the result of the distribution of the benefits of technical progress and of the differences between the degree of evolution of these countries and that of the great industrial centres.

#### 8. OTHER ASPECTS OF TECHNICAL PROGRESS AND PRODUCTIVITY

So far, we have limited ourselves to the study of these characteristic differences in relation to capitalization. To increase the capital per man is an essential but not the only condition for increasing productivity. The ability to organize, manage and administer on the one hand, and the technical skill of labour on the other, are also of great importance. One of the most significant conclusions drawn from a study of Latin America's textile industry being carried out by the Commission's experts, relates to this question. In important countries where industry generally is using antiquated equipment, productivity could be considerably increased even with the same equipment but with better organization and administration and a more rational utilization of their manpower. In the majority of the cases examined, the higher productivity attainable in this way would exceed that obtainable by a modernization of machinery and plant.

It is, of course, very important to have adequate equipment but knowing how to make the best use of it is equally important. For example, cases have occurred in which the equipment used was comparable to that in use in countries with very advanced textile industries; yet even with this equipment productivity was extremely low precisely on account of defective organization and administration.

An inflation may suddenly produce the necessary resources for the purchase of modern equipment, but it could hardly offer as swiftly the required skilled labour, which naturally takes time to develop.

Here we find another of the contrasts which are the consequence of a very uneven degree of development. In the large industrial countries, this skill, as well as the efficiency of labour, developed progressively, at

the same rate as productive technique. Skill, efficiency and technique were, in fact, forms of the same general phenomenon which, though it emerged with the industrial revolution, had been evolving throughout centuries of artisan work and the growth of trade experience.

On the other hand, in the peripheral countries, where the technique and the organization of the great centres usually only penetrated superficially and where the population was in a pre-capitalist phase or merely in a rudimentary state of capitalism, the sudden awakening to the complex processes involved by such technique and organization was bound to cause reaction and consequences which had not marked the industrial development of the great countries.

Accordingly, productivity involves two closely connected factors: first, the investment of savings in capital goods, and second, the investment of savings in the training of men who can make the best use of these goods at the various stages of production. One of the points requiring most attention in the development of the Latin-American countries is the judicious apportionment between the two forms of investment of the scanty increase in savings in order to obtain the maximum increase in productivity.

#### 9. DIFFERENCES IN THE CAPACITY TO CONSUME

Differences of the nature described occur not only in production but also in the capacity to consume; and this in turn affects production. Technical progress has enabled the population of the great industrial centres to diversify their consumption remarkably, constantly offering these communities new articles or improving existing ones, making daily life easier, or creating new tastes to replace those already satisfied by means of the constant increase in income. These are types of consumption corresponding to the more advanced stages of economic development, but which in themselves develop an extraordinary power of diffusion and tend to spread to the populations of countries which, being less advanced, have a lower level of productivity and therefore smaller incomes with which to acquire these goods.

In other words, countries where *per capita* income is comparable to that long before enjoyed by the great industrial centres tend to imitate types of consumption prevailing at the centres today. At the same time they are trying to assimilate the productive technique of the industrial centres, which requires considerable *per capita* savings. As income is relatively low in the peripheral countries, it is not surprising to find them torn between the greater propensity to consume and the imperative necessity to capitalize. The result frequently is inflation, which is further aggravated if these advanced forms of direct consumption coincide with the increase of services of the State, for the State is equally susceptible by force of circumstances to the example of new forms of expenditure in

the high-income countries, though not so ready to adopt modern defence measures. The latter makes it even more necessary to increase the general productivity of these countries which are thus striving to assume central types of consumption.

#### 10. CHARACTERISTIC FEATURES AND COMMON ELEMENTS OF THE PROBLEM OF ECONOMIC DEVELOPMENT

We have tried in this chapter to explain briefly the causes of some of the characteristic features of the expansion of technical progress to Latin America. Ultimately, though the primary design of raising productivity has the great advantage of being able to make use of the experience of the great industrial nations, avoiding their trials and errors, it also meets with difficulties arising from the fact that those countries which developed first are more advanced as regards income, productivity and capitalization. Thus, though it seems paradoxical, it may be said that the high productivity of the great industrial countries is one of the greatest obstacles which the peripheral countries must overcome in order to attain a similar degree of productivity.

When other countries followed the example of Great Britain's industrial development, they met similar obstacles, but much less serious than those nowadays encountered by newly developing countries. Despite these obstacles, the United Kingdom, in being first to possess modern technique, had obvious advantages over those countries which strove to attain it later, so much so that, without any exception, all the countries that developed subsequently to the United Kingdom were compelled to adopt measures to stimulate and protect the industries they wished to establish.

Despite the above comparisons and contrasts, this last factor provides an element common to the problem of the economic development of Latin America and the initial and successive stages of that same development in those countries which are now great centres, with the exception that the differences of productivity between the most and the least advanced of these countries were in earlier times less than those existing today between the centre and the periphery.

There is a further common element. The assimilation of modern productive technique with its increasing complexity was not spontaneous but deliberate, and required considerable effort and persistence. This is all of great importance to the development of Latin America, since the differences in the standard of living between the developed and the developing countries does not only depend on the differences between their respective natural resources but to a great extent on the effective capacity to assimilate technique, build up the necessary savings and make the best use of both. The development of this capacity will therefore be a predominating factor in the economic evolution of the countries which are now in the growing stage.

## CHAPTER V

### CONSEQUENCES OF INTERNATIONAL DIFFERENCES IN INCOME AND PRODUCTIVITY

#### 1. REACTIONS CAUSED BY DIFFERENCES OF INCOME

The relatively slow rate at which modern technique has spread throughout the world and the way its benefits are distributed, have led to considerable differences in the *per capita* income and productivity of the various economic regions of the world.

There are, of course, natural forces at work which tend gradually to level these differences, though regarded from a historical point of view they are perhaps still too slow. On the other hand, there is a school of thought which believes in the free play of these forces, and builds an abstract world wherein the mobility of the factors of production and their free and easy displacement play a decisive role. The premise of these abstract views does not coincide with realities obtaining in the economic world, as they in fact appear to us. This tendency toward the relative levelling of incomes, which would offer similar opportunities for increasing productivity in the different international sectors is, in fact, a fallacy; there is not even an approach to any levelling such as is propounded by these theorists. But this does not mean that they do not assist us in obtaining a better understanding of the facts, for they do, in fact, emphasize the difference existing between the propositions put forward by their theory and the reality of the situation.

In any case, these differences between the levels of *per capita* income and productivity have, in different countries, led to certain measures which, despite their diversity, aim either deliberately or otherwise at one of the following objectives according to each case: countries with a relatively high income quite understandably try to avoid the pressure of low income in other countries which would be detrimental to them; whereas the low-income countries attempt to raise their income by overcoming certain adverse reactions deriving from the measures taken by the high-income countries, or deriving from the actual operation of the economic system in the high-income countries.

#### 2. DEFENCE OF THE HIGH INCOME LEVEL

The way in which the United States attempts to protect its high-income level, obtained by an intensive and systematic effort to increase productivity by means of technical progress, is very illuminating and allows

us to draw conclusions which are well in keeping with the object of the present study.

The process has already been explained elsewhere. We need only recall that in the United States technical progress does not occur to the same extent in all the branches of productive activity. The tendency towards higher income, however, is general. If wages rise in one important industry owing to a marked increase in productivity, the rise tends to spread through all other activities, even if the increase in productivity in these latter has been relatively lower or even non-existent. Then, though in the first sector costs do not rise and prices may even fall, in the other activities the rise in wages, which is greater than the increase of productivity, will increase costs and hence the cost and price of the goods or services.

Accordingly, industries which could previously compete favourably with foreign imports, either because of greater efficiency or because of protective tariffs, require protective customs duties or higher duties to defend themselves against this competition. It is possible that the productivity of foreign industry may be lower than that of the United States, but lower wages can offset this difference and allow the foreign industry to place its production in the United States at a lower price than the domestic industry.

The foundation of the argument for tariff protection in this case is well-known: but for these tariffs, foreign competition would destroy activities of which the monetary cost was higher, despite their greater productivity; this would lead to unemployment, which in turn would react adversely on the high wage level of other industries.

### 3. MEASURES TO CORRECT DIFFERENCES IN THE LEVEL OF CERTAIN INCOMES

Protective tariffs are raised so that foreign competition shall not impair the high wage level obtained by technical progress. Let us now consider another case, in which measures are adopted not in order to defend the high wage level, but to raise it in some occupations in which it has lagged behind because the spontaneous economic forces were not sufficient to raise the level to that of other activities. A typical example can be found in agriculture in the United States during the 1930's. As elsewhere, cyclical pressure during the world crisis adversely affected agriculture in the peripheral areas of the United States, farm earnings falling more steeply than industrial earnings. Later, when conditions improved, agricultural income lagged behind, since income in industry and other activities did not increase sufficiently to absorb the surplus manpower which technical progress and the increase of population had released from agriculture. Thus, for the first time, there was a halt in the downward trend of employment in agriculture, in relation to the total

of the gainfully employed population during the 1930's. This failure of industry to absorb the surplus agricultural manpower was one of the factors which prevented agricultural income from rising in proportion to that of industry.<sup>1</sup> If industry and other activities had been able to absorb this surplus, agriculture would have enjoyed higher incomes and more favourable terms of trade. Since this did not occur, the terms of trade deteriorated greatly for the farmer; the system of subsidies was introduced to compensate for the low prices of agricultural produce and to restore between them and industrial prices a relationship similar to that which had existed previously. This system, which accordingly was called the system of "parity prices", consisted in deliberately making available to agriculture an income similar to that which it would have received had the benefits of technical progress been evenly distributed between agriculture and industry.

Clearly, the fact that income in agriculture had not risen as much as income in industry led to the use of artificial means to accomplish what the normal operation of the economic system could not accomplish unaided.

Yet, if agricultural income had risen as much as industrial income, agricultural prices would also have been higher than they were, and many items would no doubt have been unable to compete on the international market. The parity price system made this competition possible, for although the farmer received the international price for certain products, he also received a subsidy from the State. The subsidy thus raises agricultural income and at the same time enables certain products to compete favourably on foreign markets, without detriment to that income.

This, then, is another instance of the use of deliberate action to protect a high level of income against the effects of foreign competition. In the first of the examples cited, foreign competition of low-income countries is reflected in domestic consumption, whereas in the second case exports are affected. The similarity between the two lies in the fact that in either case subsidies are resorted to in order to maintain in the respective activities incomes higher than those in the competing countries. In the one case, the subsidy takes the form of customs duties, while in the other, the method adopted is that of compensatory payments in order to bring prices to the same level.

There are other less important but equally significant examples in which the same results are obtained without State assistance. For instance, there is the example of North-American steel which before the Second World War competed in the foreign markets with "European export prices, irrespective of the prices obtaining in the American domestic

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<sup>1</sup> This phenomenon is of great interest to the Latin-American countries since it confirms what has been said elsewhere with regard to the possible adverse consequences of technical progress in primary production, should employment in industry and its related activities not develop at the rate required to absorb the excess of gainfully employed population.

market. In the home market, where the overwhelming proportion of the American production was generally sold, prices did not fall to the very low level reached in the export markets".<sup>2</sup>

These facts have been mentioned with strict objectivity. It is not a question of judging the policy on which these measures are based, but of interpreting their economic significance, since this may enable us to understand more clearly certain aspects of the problem of the economic development of Latin America.

#### 4. COMPETITION OF LOW-INCOME COUNTRIES

The classical theory, however, envisaged a different solution to these problems. The consequences of the mobility of the factors of production and the free distribution of products would have been very different, for they would have tended to level down incomes instead of levelling them up, which is what in fact slowly occurs as technical progress and industrialization are extended. At this point let us consider the case of Japanese competition to learn what lesson it can teach us for the economic development of the periphery. Japan was able to assimilate modern technique rapidly but did not raise wages to the levels of the great industrial countries. Perhaps the pressure of the vast numbers employed in primary production with a low level of productivity, together with the considerable increase of population, counteracted the tendency towards rising wages. Be that as it may, one of the reasons for Japan's strong competitive position in world markets, principally in the British market, lies in the fact that the benefits of technical progress tended in this case to be transferred to the rest of the world to a greater extent than occurred in the case of other industrial countries. Japan's incomes thus remained lower than those of other industrial countries; nevertheless, through industrialization Japan was able to increase considerably *per capita* productivity with an evident net increase in income, which would probably not have been possible without the expansion of exports.

To be able to compete favourably with Japan in certain branches of activity, other industrial countries would have had to lower their wage levels, which would have led to serious economic and social disturbances. In order to avoid these consequences, they were compelled to defend their income level by tariff barriers protecting the industries affected when this competition entered their domestic market, though on the international market they were unable to carry the defence further than certain bilateral compensation agreements concluded between the two world wars.

<sup>2</sup> *European steel trends in the setting of the world market*, Economic Commission for Europe, United Nations, Geneva 1949, pages 44 and 45.

##### 5. MEASURES TO AVOID THE DROP IN INCOME AND TO STIMULATE ITS INCREASE

This is not the only interesting aspect of the problems presented by the differences in income and productivity. The experience of Great Britain between the two wars includes much that is of interest concerning peripheral economic development. It is well-known that chronic unemployment in Britain occurred principally in those branches of the export industry which could not continue to compete with other countries, either because of the latter's greater technical progress or because of their lower income. Furthermore, the United Kingdom's export industries were hampered by the growing obstacles placed in their way by industrial development in the periphery. This unemployment, which was aggravated by the world crisis, represented an enormous loss of income. Great Britain was thus compelled to resort to protective tariffs and other restrictive measures, in order to stimulate primary and industrial activity, the subsequent development of which enabled it to make up the loss of income in a relatively short time. So, even though productivity in the new industries or in agriculture was less in that country than in either the United States or in Argentina, for instance, there was nevertheless a considerable increase in real income. Needless to say, this increase would have been still greater had productivity also increased. But that is another point, though likewise of considerable importance.

It might be feasible to enter into a lengthy theoretical analysis which would show that, if British wages had declined as a result of unemployment, the resultant lowering in the cost of production would have permitted the establishment of new industries and guaranteed those already in existence, without any need for the deliberate reduction of the import coefficient referred to earlier. But even had the reduction of wages increased employment—which is very doubtful—it would also have meant a corresponding reduction in the price of all British exports for the sake of stimulating some of them, a measure implying considerable loss to the country's real income.

We would not enter into discussions of this kind if they did not throw some light on the problem of the economic development of Latin America. The Latin-American countries have also found it necessary to stimulate their industry in order to absorb both the increment of gainfully employed population, and the surplus which technical progress gradually displaces from primary production and other activities. The differences in productivity in the periphery and at the centre are such that though Latin-American incomes are low in relation to the United States and Western Europe, the cost of production does not usually permit Latin-American countries to meet foreign competition. It is evident that in this case, as in the case of Great Britain, the industries developed are economical in so far as they represent a net addition to real income which

could be much greater if productive technique, including the organization and administration of enterprises, were improved.

It might also be argued in the present case that the free play of economic forces would be sufficient to solve the problem of unemployment or that of employment at low productivity. By this we mean, of course, free play in the domestic economy since there is no thought of a large-scale shift of population from the periphery to the centres in quest of industrial employment. Abstract argument could show that the lowering of wages, brought about by the increase and surplus of population referred to above, would permit costs to decrease to a point where it would be possible to compete with foreign imports. The import coefficient would thus be lowered automatically and not deliberately as occurs when restrictive measures are adopted.

However, the consequences would be most unfavourable to the periphery. In fact, its income, already very low in comparison with that of the industrial countries, would fall even lower and hence not only the monetary cost of domestic production but also that of exports would decline, to the obvious detriment of the terms of trade. Moreover, the widening gap between the income of the periphery and that of the industrial centres would not only augment the relative cost of consumer goods but also the amounts necessary for the importation of capital goods. The obstacles to industrialization would thus be strengthened and the ratio between fixed capital and wages would tend to depart even further from the optimum attained at the centre.

In short, besides involving considerable complications, this type of natural adjustment would appreciably reduce the larger net income derived from industrialization. It might even cause a real loss in total income if the net income produced by the surplus population added to industrial activity were not sufficient to compensate for the loss caused by deterioration of the terms of trade.

Consequently, import restrictions deliberately intended to lower the import coefficient are, in fact, equivalent to the granting of an internal subsidy to the industries which it is intended to stimulate or create in order to enable them to yield an income at least equal to those generally prevailing in the country while at the same time increasing the total volume of income. Thus we come to the second category of measures mentioned at the beginning of this chapter. Countries enjoying a high income level take steps to prevent harmful competition from countries with lower incomes in cases where these lower incomes or greater productivity or a favourable combination of both gives the latter countries an advantage in certain branches of production. Meanwhile, the countries with lower incomes also take measures in other branches of production to prevent the great industrial countries, with their greater productivity and despite their high incomes, from hindering the development of their industries

and thus lowering their incomes, and widening as a consequence the difference between their income and that at the centre.

Another form of competition is that exercised by countries which, by effectively assimilating the productive technique of the centres and by maintaining a lower income than that of other countries are able to cause unemployment in the centres as well as in the developing countries and so cause unfavourable reactions on the income levels of both.

#### 6. THE DIFFERENCE IN INCOMES AND PLAY OF ECONOMIC FORCES

The conclusion would seem evident. The disparities or differences in income and productivity caused by the uneven development of productive technique and the unequal distribution of its benefits present problems which, since they cannot be solved automatically and satisfactorily by the free play of economic forces within each country, have necessitated the use of measures which, though diverse, all tend to protect and to increase the level of income attained in the country. If the free play of economic forces is not limited to the sphere of national economies but is extended to the international, it is conceivable, in the abstract, that a state of affairs may emerge in which the absolute mobility of the factors of production and the free distribution of products would in time tend to bring about a relative levelling of income. However, the economic world of today is very different from that abstract creation, and in reality the premise of the mobility of the factors of production is not purely economic but involves values of another kind which are generally considered more important than the strictly economic.

Still, the time spent in considering the consequences of this abstract reasoning is not wasted, for in speaking of the free play of economic forces one does not always remember that the theory drawn from such reasoning has a universal sense. Therefore, when specific cases are considered, the theory can hardly be divided arbitrarily and applied merely to a particular country with the exclusion of all thought of the great international consequences.

Herein lies the justification of the effort made in these pages to throw light on the peculiar complexities of economic development and its disparities and discrepancies. These considerations, which are too sketchy and general, are naturally not adequate. Both a more thorough theoretical analysis and a careful investigation of the facts are lacking.

#### 7. SPECIAL CASES OF HIGH INCOME IN LATIN-AMERICAN EXPORT ACTIVITIES

In addition to the general problem common to all the Latin-American countries which has compelled them to adopt protective tariffs of one kind or another in order to sustain their economic development, there are several individual examples which, apart from their inherent interest, lend themselves to a theoretical interpretation which enables us to discern

the presence of elements of great importance to our former analyses. There are two Latin-American countries, Cuba and Venezuela, which have not devalued their currency and whose wages in terms of dollars have been maintained at a high level in their respective export industries. These high wages, when expressed in the terms of other devalued currencies, are considerably higher than wages in most Latin-American countries. But since in these two countries productivity is relatively low in comparison with other countries in the industries which they propose to develop in order to absorb the increase and surplus of their gainfully employed population and also to satisfy the needs of domestic consumption, they find themselves compelled to resort to higher tariffs than are needed by other countries whose productivity is the same but whose wages are lower. This greater protection is undoubtedly one of the factors which explain the relatively higher prices ruling in these two countries in comparison with other Latin-American States that have devalued their currency.

From this fact the following conclusion might be drawn: incomes being equal, the higher the wage level the higher must be the subsidy which a protective customs policy implies.

As will be seen in due time, Cuba having learned from its experience of the catastrophic repercussions of cyclical depressions on its single-crop economy has resorted since 1927 to customs tariffs to protect its agriculture and industry, thus enabling these activities to absorb the manpower which the sugar industry could not have employed. Here we have one of the many examples of a peripheral country hampered by circumstances beyond its control which compel it to adjust policy to prevailing conditions. In view of its natural facilities and its high productivity, Cuba could surely produce a great deal more sugar, for better or for worse, and so employ a great many more people in this activity or, alternatively, obtain a much higher rate of productivity from those now engaged in the industry. Cuba could conceivably upset sugar prices in the United States and supply most if not all of the consumer needs at the expense of the production of the United States and of other competitor countries. Cuba would, of course, have to lower its wage level to do this; but it is possible, though not certain, that the total increment of real income obtained by the employment of more factors in undertakings of great productivity would be greater than that obtained at present by employing part of these factors in activities which, because of their lower productivity, require the protection of customs barriers.

However, it is well known that, even should Cuba wish to follow this course, it could not do so because of the United States' restrictions on the import of sugar. This is evidently a case of protection which cannot be attributed to lower income in the competitor country so much as to its greater productivity. In this case the protective measure takes the

form of a quota as well as customs duties. Under the quota system Cuban sugar exports obtain a higher price on the American market than on the world market, as high in fact as the United States judges adequate to protect its high income level.

Under these circumstances, Cuba obtains terms of trade for its sugar which are probably more favourable than those obtainable on the free market open to other producer countries with lower wage levels. But Cuba must also look for other activities in which to employ its surplus manpower. It is evident that the higher the rate of productivity it attains in such activities the greater will be the increment of its real income.

Venezuela's experience is of equal interest both from the theoretical point of view and from that of political economy. Venezuela's petroleum industry pays wages which in terms of dollars are extremely high in comparison with other Latin-American countries. Furthermore, the State derives a very high income from petroleum (near 50 per cent of the net earnings of the producer companies). The direct effect of spreading of high wages from the petroleum industry to other activities is perhaps not very marked (much less so than that of the sugar industry in Cuba, without any doubt) since this industry only absorbs about 3 per cent of the gainfully employed population. However, the indirect effect which the spending of these wages presupposes, together with the disbursement of the large sums which the Government derives from petroleum, has been reflected in a great demand for labour, with a consequent rise in income; and both these consequences have been extended to all branches of economic activity in the country.

This would seem to be one of the factors which contributed to placing certain exports such as coffee and cocoa in an unfavourable position *vis-à-vis* competition from other exporting countries. It explains the subsidy instituted by the Venezuelan Government for the export of these products which takes the form of a better exchange rate. This can, to a certain extent, be compared with the subsidy which used to be paid during the 1930's to cover the difference between actual and "parity prices" in the United States. The resemblance is only partial, however, since it would appear that both coffee and cocoa are cultivated by primitive methods whereas technical progress in agriculture in the United States was very advanced.

Thus the level of wages in Venezuela, as in Cuba, is higher than in other Latin-American countries, and hence relatively high tariffs are required in order to protect industry. Petroleum is far from absorbing the additional population of Venezuela and still less the surplus which might be released by technical progress in primary production. It has in fact created other problems which will be mentioned in due time.

Our only purpose here was to indicate, within the limits of this chapter, the conditions that determine the creation of a high-income export in-

dustry, in such low-income countries as Cuba and Venezuela formerly were. Thus in the domestic economy we encounter differences of levels which in time will be corrected by the mobility of the factors of production and require the enactment of measures to protect the new level of incomes.

#### 8. OBSTACLES TO HIGHER INCOME IN EXPORT INDUSTRIES

These problems are to a certain extent new to the Latin-American periphery where wages in export activities have remained relatively low. Hence we should mention briefly the effects of higher incomes from export on the great industrial countries. In the case of the United States where, as we have so often pointed out in the present survey, imports represent a very small proportion of the national income, the increase of incomes in the export activities of supplier countries has relatively little effect. For instance, if in the case of a coefficient of 3 per cent imports become dearer by, say, 50 per cent, this would merely represent 1.5 per cent of the national income of the United States. By contrast, in countries with a higher coefficient, say 20 per cent, this could represent 10 per cent of the national income. Hence, a country of this description is quite naturally preoccupied whenever any noticeable improvement occurs in the terms of trade of the peripheral countries.

Consequently, except in special cases such as those outlined above, the attempt to raise income in the Latin-American countries by means of exports may run into serious difficulties caused by competition from other countries or regions in the periphery which are developing primary production, whilst they themselves have entered the phase of industrial evolution. Moreover, even in the exceptions referred to above, complications of another sort may arise; a recognized authority on petroleum has dealt precisely with the case of Venezuela and spoken of the possible adverse effects upon the country of the lower taxes and wages paid in other highly productive exporting areas.<sup>3</sup>

#### 9. EFFECTS OF DIFFERENCES IN INCOME AND PRODUCTIVITY ON RECIPROCAL TRADE IN LATIN AMERICA

The effects of the differences of income and productivity, as analysed above, are not only visible in the relations between the periphery and the great industrial countries, or in those of the industrial countries *inter se*, but also in the relations between the peripheral countries *inter se*. These can, of course, be considered on the whole as countries of relatively low income. Yet there are differences, and sometimes very great differences, from country to country in both income and productivity. These differences, in conjunction with other factors, constitute one of the obstacles to reciprocal economic understanding, especially in the case of neighbouring States.

<sup>3</sup> See "El Petroleo en Venezuela" by Joseph E. Pogue.

A customs union has often been proposed as a means of widening narrow markets, and of contributing to the increase of productivity which mass production usually involves. However, differences of income or productivity can create unfavourable competitive conditions similar to those analysed above. Furthermore, differences of income could become aggravated by devaluation in one country or by varying levels of devaluation in different countries.

It is conceivable that a country permanently or temporarily in an unfavourable competitive position might find its own domestic production impaired by the increase of imports from another. It is obvious that, if the latter employed the increased purchasing power it thus obtained in the former country, exports would increase together with imports, and the disadvantage caused by displacing the factors of production would be amply compensated by the advantages accruing from the additional trade. However, as has been explained in another chapter, there is nothing in the free play of economic forces which will ensure this result automatically except in cases where the volume of trade is extremely large in proportion to national income, and that is not usually the case in Latin-American countries. On the contrary, owing to the disequilibrium and shortage of foreign exchange which beset practically all these countries, any Latin-American country could use the proceeds of its surplus sales to another Latin-American country for importing capital goods from the centres, for instance, in which case the proceeds would be taken from the reciprocal trade.

As mentioned before, frequent attempts have been made by bilateral treaties to obviate these effects. Usually these treaties have been short-term measures. But they have not sought to attain a wider objective such as stimulating the exchange of industrial goods, so as to ensure a market in a given country for certain industrial goods deriving from the other in exchange for reciprocal concessions of equivalent worth.

Little has been done in this direction. Meanwhile, it generally occurs in the process of industrialization that each country within its own frontiers attempts to develop both industrial and agricultural production of a type similar to that carried on across the frontier without regard either for specialization or consumption capacity.

Such extremes were not reached in the industrial development of Europe owing to several factors, one of the most important being the fact that at that time there was no general scarcity of foreign exchange, as has already been pointed out. The countries which were then developing could therefore increase their exports continuously in order to compensate for the steady increase of their imports. However, when foreign exchange did become scarce, during the 1930's, trade between industrial countries was seriously affected and the consequences were extremely grave for western Europe. One can therefore understand the far-reaching

consequences of the efforts sponsored insistently by the United States in order to stimulate such reciprocal trade.

The purpose of the present chapter has been to point out the problems which arise, in highly developed countries as well as in those which are much less advanced and those in intermediary stages of development, as a result of differences in incomes and productivity. These problems have brought about the adoption of certain deliberate measures which, despite their manifest diversity, have a common feature since in the light of experience, they can all be attributed to the fact that no automatic solution has taken place in a world economy where conditions differ vastly from those described by the classical theorists.

Among these measures are those of a protective nature which have always been adopted by countries in process of development. This statement of fact does not imply the recommendation of specific policies, which would lie beyond the purpose of the present report. Our intention is merely to show that, since there is no other way of absorbing the gainfully employed population and increasing its productivity, the activities which can be developed by protective tariffs do, within certain limits, give rise to an increase in real income. Such limits were mentioned in last year's report. It can only be noted here that once these limits have been exceeded, contrary to the purpose pursued, real income diminishes rather than increases.