ECONOMIC SURVEY

OF

LATIN AMERICA

1954

*Prepared by the secretariat of the Economic Commission
for Latin America*

Table 8.   Latin America : Annual *per capita* rates of growth in selected countries

Countries	1953–54			1951–54		
	Gross product	Available goods and services	Capital stock	Gross product	Available goods and services	Capital stock
Colombia....................	6.6	11.6	2.6	5.7	8.0	2.1
Brazil......................	6.3	10.8	1.3	3.1	3.1	2.0
Argentina..................	0.4	1.4	1.2	—3.6	—5.7	1.0
Mexico.....................	4.3	2.8	2.1	—0.9	—2.1	2.4
Peru.......................	0.8	—7.8	...	3.6	—2.7	...
Cuba.......................	—4.5	12.3	0.8	—7.2	—7.9	0.0

Sources and methods: To obtain uniformity, statistics from official sources were adjusted by the Economic Commission for Latin America. All figures are provisional.

Colombia was the last country to experience this external imbalance, although the characteristics were mild; higher income exerted a pressure upon imports, while previous measures for liberalizing trade had to be replaced by others of an opposite nature aimed at correcting the disequilibrium. In this case, investment did not follow the substantial improvement in the terms of trade during 1954; on the contrary, the investment coefficient, although relatively high in 1954 (17.9 per cent), was lower than that of 1953 (20.0 per cent). In reality, this unexpected improvement in the terms of trade found Colombia without investment plans that could rapidly absorb the new resources, and which have proved to be of short duration only.

The difficulties in Brazil had arisen previously and were much more acute. In 1952-53, the external deficit obliged strict measures to be adopted to curb imports, which had exceeded the capacity to import and had led to an accumulation of heavy arrears abroad. These restrictive measures adversely influenced domestic activity during the two years concerned, but statistics for 1954 show that a pronounced recovery has taken place. A major role in the recovery was played by the greater flexibility introduced into the exchange system, and by the establishment of a minimum wage, which—together with the general rise in wages—improved the real earnings of the lower-income groups which had earlier been seriously affected by the inflationary rise in prices.

In considering these two countries, it should be noted that the favourable effects of the terms of trade have not been equally intensive for both of them. In Colombia, the influence of coffee exports upon the whole economy is more pronounced. This fact in part explains why investment and the increase in both the gross product and available goods and services were stronger there than in Brazil.

The other countries have also been subjected to these external disequilibria and, in certain cases, to such an extent that measures have had to be taken to act as a brake upon monetary expansion. As often happens, these measures have caused some temporary contraction, Argentina, Mexico and Peru being mainly concerned. Argentina and Mexico have already overcome this situation, and the 1954 statistics indicate some recovery.[12] In Argentina, the re-

cession was first caused by factors which have already been explained in previous reports. In this *Survey*, reference will be made to the new policy of expansion which brought about the recovery.[13] Peru was the last country to feel the disequilibrium, and attacked it by measures to restrict imports. Despite the imbalance, the gross product has once again begun to grow after the fall in 1953, but at a slower rate than in previous years because available goods and services were weakened by the deterioration in the terms of trade.

Cuba has also undergone an appreciable contraction during the last two years, not because of readjustment measures, but on account of the unfavourable sugar situation, which, together with other factors, raises special development problems for this country.

These indications of external disequalibrium are by no means isolated in character. They are symptoms of more profound phenomena which should be examined in greater detail, and for which the following pages partly aim at finding an explanation.

II. The stimulus of demand, investment and acceleration of the rate of growth

Section I of this chapter did not state whether the terms of trade can exert any marked influence upon the investment coefficient. This question deserves to be examined closely because its theoretical interest is as great as its importance for a development policy. It has two aspects, the first relating to the behaviour of the coefficient over the short term, and the second dealing with changes in the rate of investment during longer periods. As regards the first, the data for the last thirty years reveal that, for Latin America as a whole, the investment coefficient follows a course parallel to that of the terms of trade, though there are other influences which might preclude this in some of the countries of the region.

The vital issue does not concern the short-term movements of these two variables but the long-term behaviour of the investment coefficient and the forces which determine it. In the absence of external incentives for development, or of a planned policy to provide them, do internal forces exist which are capable of raising the coefficient and the growth rate spontaneously? The answer is in the negative because, to raise investment, an eccelerated expansion of demand must previously be obtained, and this cannot be spontaneously generated by the interplay of domestic economic forces. In the past, the rise in demand

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[12] The recovery in Argentina during 1954 was only apparent in the internal sector, because the capacity to import did not rise above the level of 1953. Something of the same sort occurred in Brazil. As a result, greater imports, which encouraged an expansion of industrial production—thanks to a reader availability of raw materials and other imported products which had been in short supply—were financed through a deterioration in the trade balance. It will be seen in chapter II, that Argentina and Brazil accounted for some 75 per cent of the aggregate decline in Latin America's trade balance during 1954.

[13] See the end of section III of this chapter. In addition, the situation in Mexico and the recent strengthening of its monetary position are discussed.

Chart IV
LATIN AMERICA: EFFECT OF THE TERMS OF TRADE AND OF EXPORTS UPON THE CAPACITY TO IMPORT AND THE INVESTMENT COEFFICIENT

Moving three-year averages
Percentage of gross income
(Natural scale)
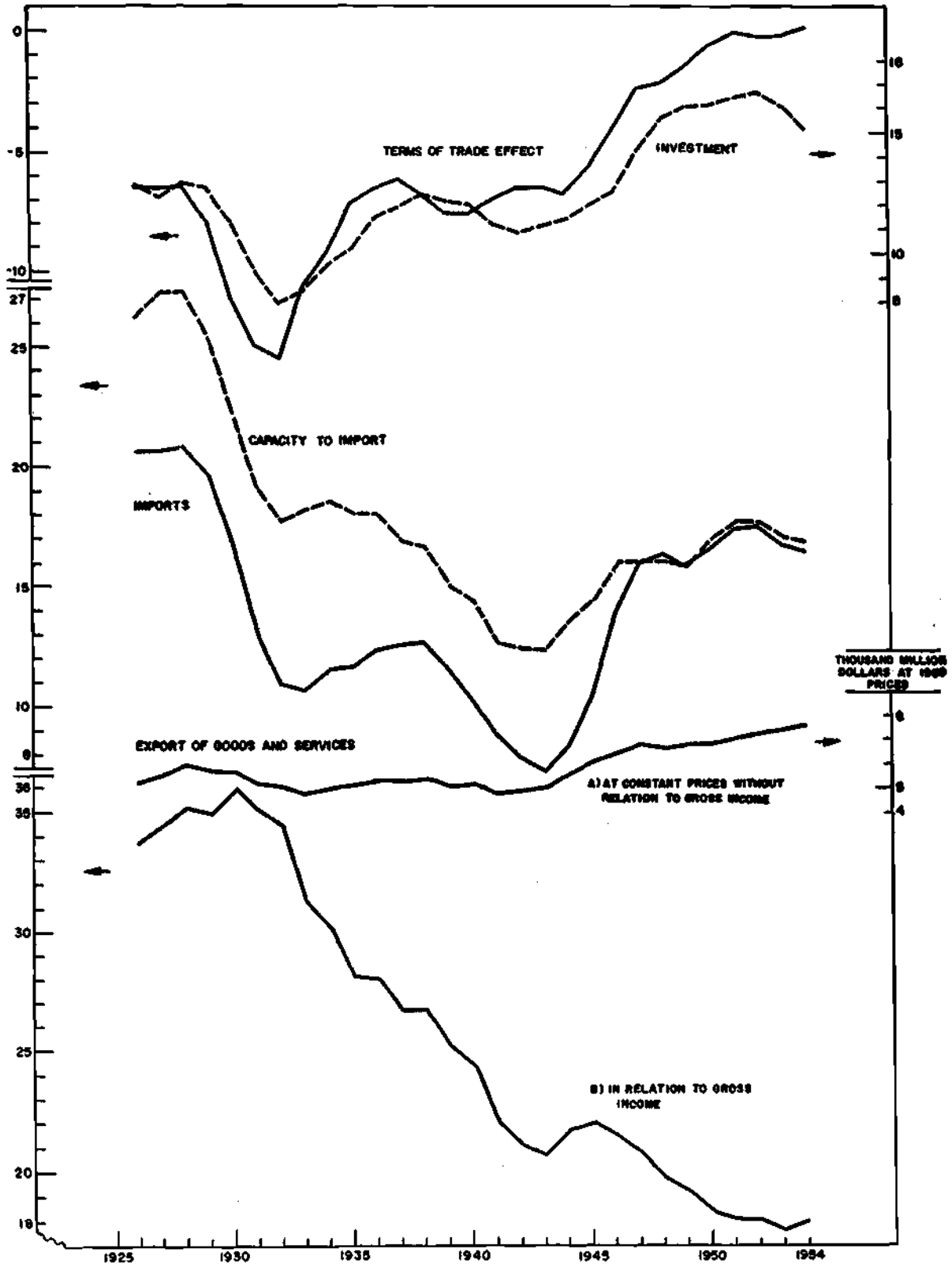
was brought about by external factors which led to a pronounced development of Latin America's exports. But this dynamic force has weakened. Consequently, a revival of the previous expansive effects of exports upon the growth of internal demand, and therefore upon the strength of the incentives to economic development, must be the object of a deliberate policy aimed at raising demand. A theoretical digression at this point may clarify a subject of considerable practical interest. It will analyse how an increment in the productive factors employed in import substitution activities tends to accelerate the growth rate of domestic demand in the same way as an expansion in the export sector.

Such is the dynamic effect of an import substitution policy, which, far from being incompatible with the effort to encourage exports, is complementary to it. But an acceleration of the growth rate of demand is insufficient to increase the investment coefficient; clearly, the savings coefficient must also be raised. Can it be achieved by inflation? This is the final point discussed in this section. It may be argued that inflation can raise the savings and investment coefficients, but the practical obstacles and economic disturbance it causes are too great to allow much confidence to be placed in its dynamic influence. Once this conclusion has been reached, the way lies open for the analysis in section III of the specific examples of inflation[14] mentioned at the outset of this chapter.

A. THE INVESTMENT COEFFICIENT

1. *The terms of trade and the investment coefficient*

This chapter's initial survey of the recent fluctuations of investment in Latin America and the influence of the terms of trade, might be considered fortuitous if the conclusions were based on a relatively short period of years. An analysis will now be made covering a much longer period, which offers more reliable evidence of the remarkable impact of the terms of trade upon the evolution of the region's economy. It must be repeated that the terms of trade are in reality the reflex of a series of external forces, the variations of which are of vital importance for the Latin American countries. The same forces which bring about the improvement or the deterioration of the terms of trade also cause the export volume to increase or decrease, although to a much smaller degree, so that the influence of the former upon the rate of investment predominates.

Proof of this statement will follow. The period under review covers the last thirty years (1925-54) and is sufficiently long—and certainly eventful enough—for the inferences drawn from it to be attributed merely to random costs.

Chart IV has been prepared so that these phenomena can be clearly grasped. The curves therein have been smoothed out with three-year moving averages. (See also table 9.) These curves cover Latin America as a whole, although it would have been interesting to divide the countries into groups, in the same way as in section I, so as to identify the effects of the specific factors influencing them. But such grouping would have required special studies demanding long and minute research, and the purpose of this chapter can be accomplished by the over-all analysis, which is in itself significant enough.

The first curve in chart IV represents the terms of trade effect and the second the investment coefficient, both expressed as a ratio of gross income. The close analogy being. During the world depression both follow a downward tween the general movements of these two curves is strik-course; they later rise until their recovery is interrupted before the Second World War. During the war, investment tends to decline for obvious reasons, despite a slight upturn in the terms of trade. After 1945, the two curves reach the peak since the depression of the 'thirties. During the last few years, however, while the terms of trade remain very high—chiefly owing to the rise in coffee prices—and exports also continue at a comparatively high level, the beginning of the downtown in the investment coefficient can be observed. This decline was noted earlier and it is visible, although somewhat less sharply, in the smoothed-out curves. Experience provides no means of judging whether it is an event of limited scope or one of far-reaching significance. Should it prove to be the latter, the growth rate of consumption would clearly have to decline if the rate of investment continued to slacken, since in the future the consumer goods and services will increase at a more moderate rate. But even on this extreme assumption—and there is no reason to believe that it will prove correct—the influence of the external forces must continue to be of great importance, although their pressure is exerted upon weaker rates of growth.

How do these forces react upon the investment coefficient? Without embarking upon a detailed analysis, they do so in two ways. The improvement in the terms of trade and an increase in exports—so long as the supply is elastic—on the one hand raise the profits of the entrepreneur both directly and indirectly; on the other, they provide him with incentives to invest. The direct increment in profits has to occur in the export trade,[15] and is at once distributed as higher earnings among the productive factors employed in that sector. An initial impulse is thus given to income and demand which generally spreads out to internal activities by means of a well-known mechanism. This direct and derived expansion of demand causes domestic prices to rise and encourages a better utilization of existing capital, with a consequent increase in the product-capital ratio. In this way, the profits of the activities producing for the internal market grow simultaneously with the incentives to higher investment. As investment and consumption grow, imports rise; but, exports having also increased, such additional imports can be made without difficulty.

Thus, an improvement in the terms of trade and an increase in the volume of exports provoke a rise in income and its redistribution in favour of the entrepreneur. This not only acts as a stimulus to the investment coefficient, but also causes an increase in the product per unit of capital, unless adverse factors exert a stronger influence, as will be discussed later.

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[15] It is a fact that as the terms of trade improve, so export prices rise more than import prices, while as they deteriorate the former fall more than the latter. Hence the fluctuations in profits and other earnings in the export sector. A situation is conceivable where export prices remain stable while those for imports decline; the profits would then emerge in the import sector. But this does not appear to be the characteristic course followed by such movements. Furthermore, when the terms of trade deteriorate, the additional profits which importers may make are neutralized by the adverse effects of the over-all contraction in income. In any case, the decline of profits in the export sector is much more significant. This accounts for the sequence of the argument in the text.

Table 9.   Latin America: Investment coefficient, capacity to import, and imports
and exports of goods and services

(Moving three-year averages as percentages of gross income)

Year	Effect of the terms of trade with respect to 1950 (A)	Investment (B)	Capacity to import (C)	Goods and services		
				Imports	Exports	
				(D)	(E)	(millions of 1950 dollars) (F)
1926	− 6.4	12.9	26.2	20.6	33.8	5,341
1927	− 6.5	12.4	27.3	20.6	34.5	5,711
1928	− 6.4	13.0	27.3	20.3	35.2	6,101
1929	− 7.9	12.8	25.4	19.7	35.0	5,963
1930	−11.2	11.4	22.2	16.7	36.0	5,866
1931	−13.2	9.3	19.2	13.0	35.2	5,359
1932	−13.6	8.0	17.7	10.9	34.5	5,204
1933	−10.7	8.5	18.1	10.7	31.3	4,931
1934	− 9.2	9.5	18.5	11.5	30.2	5,126
1935	− 7.2	10.2	18.0	11.6	28.2	5,204
1936	− 6.6	11.5	17.9	12.3	28.1	5,496
1937	− 6.2	11.9	16.8	12.5	26.8	5,439
1938	− 6.8	12.5	16.5	12.6	26.8	5,576
1939	− 7.6	12.2	14.9	11.5	25.3	5,284
1940	− 7.6	12.1	14.3	10.2	24.5	5,323
1941	− 7.0	11.2	12.6	8.7	22.0	4,953
1942	− 6.6	10.9	12.4	7.8	21.1	5,011
1943	− 6.5	11.1	12.3	7.2	20.7	5,146
1944	− 6.8	11.4	13.5	8.2	21.8	5,701
1945	− 5.7	12.0	14.4	10.3	22.0	6,195
1946	− 4.0	12.6	16.0	13.7	21.5	6,624
1947	− 2.4	14.3	16.0	15.9	20.8	6,930
1948	− 2.2	15.6	16.0	16.3	19.8	6,859
1949	− 1.5	16.1	15.8	15.8	19.2	6,899
1950	− 0.6	16.2	17.0	16.5	18.4	6,938
1951	− 0.1	16.5	17.6	17.3	18.1	7,102
1952	− 0.2	16.7	17.6	17.4	18.1	7,321
1953	− 0.2	16.0	17.0	16.7	17.7	7,407
1954	+ 0.1	15.2	16.8	16.4	18.0	7,658

Sources and methods: Figures calculated by the Economic Commission for Latin America.
Col. (A): Estimated by multiplying exports of goods and services at constant 1950 prices, by variations in the index of the terms of trade, with respect to 1950.
Col. (B): Gross investment in fixed capital, excluding, therefore, variations in stock.
Col. (C): Estimated by adding exports of goods and services at constant 1950 prices, the effect of the terms of trade with respect to 1950, and the net inflow of foreign capital.

A pause will enable a reflection of a different nature to be made. The external forces in question are the expression of cyclical fluctuations in the large industrial centres. In such movements, the investment coefficient naturally represents a variable of crucial significance; the alterations of which have a marked effect upon the other activities of the industrial centres, which in turn react upon the investment coefficient. In this way the external forces are generated which so vitally influence Latin America's investment coefficient. Hence it is clear that changes in the volume of investment in the great industrial centres are followed, although perhaps with a lag, by similar variations in the volume of investment made within the Latin American periphery.

It was previously stated that fluctuations in the terms of trade have a stronger influence than those in the volume of exports. Although exports also rise and fall, their movement is far less pronounced than that of the terms of trade, as may be seen by comparing the fifth curve in chart IV, representing the changes in the volume of exports, with the first curve, which shows the effect of the terms of trade. Furthermore, the fluctuation becomes still less perceptible

if exports are related to gross income, as shown in the sixth curve. In contrast, attention is drawn to the acute decline of this ratio from the beginning of the period to the end of the Second World War, and to its relative stabilization during subsequent years at a level far lower than that it had reached before the great depression. Consequently, if Latin America's post-war capacity to import has risen so sharply, this is entirely due to the influence of the terms of trade, as is clearly apparent in the third curve of chart IV. The capacity to import closely follows the terms of trade and there is no reason to believe that this influence will be modified in the immediate future. To show the volume of imports a fourth curve has also been presented, which intersects that of the capacity to import and follows its general movements, although with some deviations which can readily be explained.

## 2. The terms of trade and the product-capital ratio

When the terms of trade and exports improve, the increment in domestic activity tends to raise the product per unit of capital. This reinforces the positive effects of the higher investment coefficient upon the rate of growth,

though these may be offset by factors which may counter-
act the tendency of the product-capital ratio to rise. To aid
in the investigation of this point, chart V was prepared to
show the evolution of both the terms of trade and the
product-capital ratio over the last thirty years. (See also
table 10.)

A comparison of the two curves plainly reveals that at
certain periods they do not run parallel, from which it may
be inferred that, during those phases, the action of other
factors offsets the influence exerted by the terms of trade

upon the product-capital ratio. However, at the outset of
the war, a phenomenon occurred whose consequences do
not yet seem to have ended. The limitations that the war
imposed on capital formation, as well as the urgent need
to replace imports and to expand certain exports, led to
the fullest possible utilization of the capital stock. By 1947,
the product had risen to $.50 per unit of capital, or 22 per
cent above its level in the best years of the preceding decade
(1935-37). As a result, despite the decline in the terms of
trade, the product-capital ratio rose substantially.

Chart V
LATIN AMERICA: TERMS OF TRADE AND PRODUCT PER UNIT OF CAPITAL
Moving three-year averages

(Natural scale)
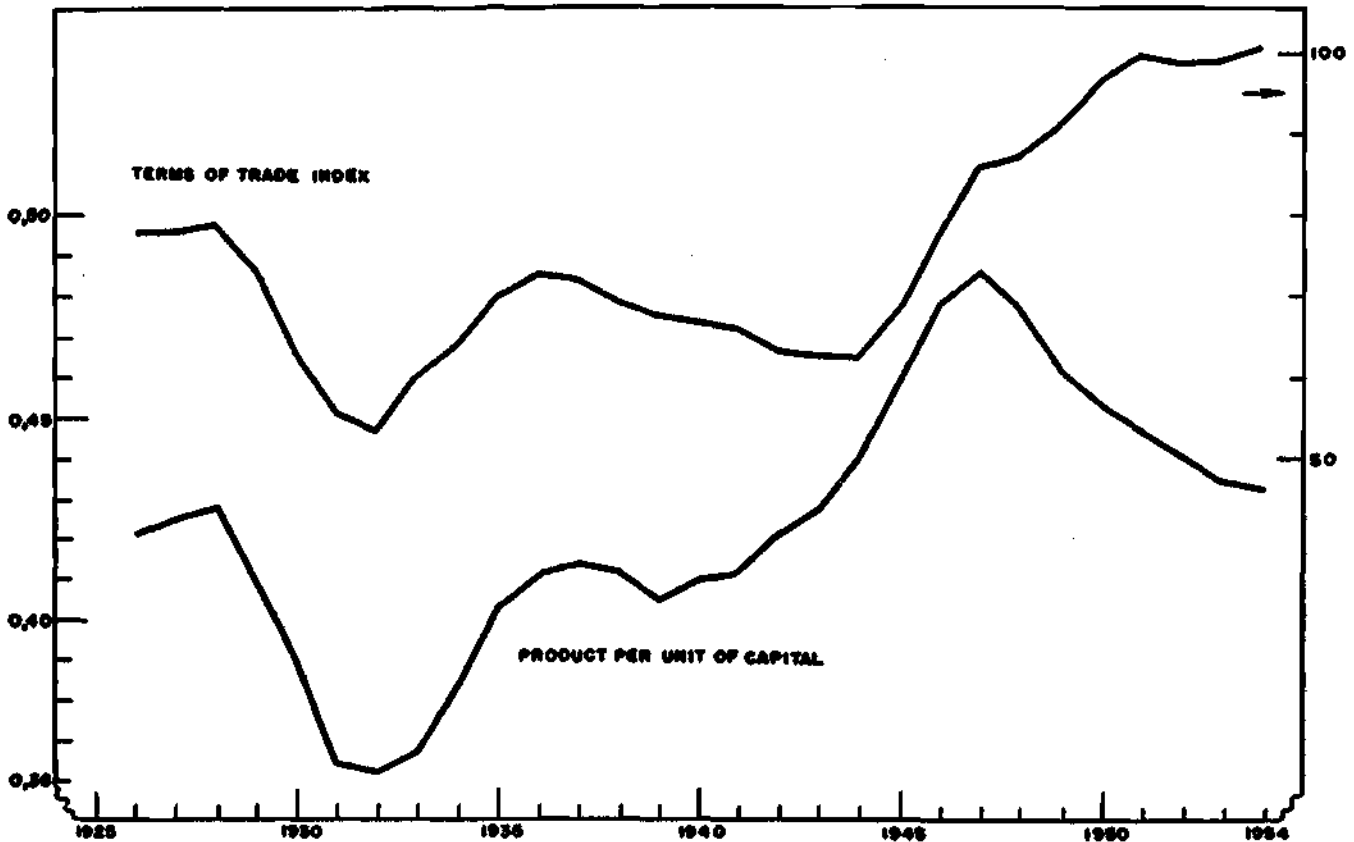
When the tension subsequently relaxed, the product per
unit of capital began to drop towards a level similar to
that at which it had stood before the great depression and
which it had almost regained at the outbreak of the Second
World War. Nevertheless, this fall reflects not merely a
variation in the intensity with which capital was utilized,
but probably also the effects of changes in its composition
and of certain unsuccessful investments. It is a well-known
fact that for basic social investments, such as electric
energy and transport, the product per unit of capital is
much lower than for investments in industrial and agri-
cultural production. Such basic social investments fell to a
minimum during the war, but their reappearance after
1945 contributed to the decline which has characterized
the product-capital ratio during the last decade. In the

post-war period, this downward movement, although ac-
companied by an improvement in the terms of trade, could
only be fully offset in the countries producing coffee and
cacao, where the ratio tends to move perceptibly upward.
It may thus be concluded that while the terms of trade play
a dynamic role in bringing about the changes in the prod-
uct-capital ratio, their influence is not so predominant here
as on the investment coefficient. The effects of a rise in the
investment coefficient upon the rate of growth of the gross
product may therefore be neutralized by these other forces
which tend to depress the product-capital ratio. This is
exactly what occurred in the case of the countries which do
not produce coffee and cacao.[16]

[16] See sub-section 2(a) on the coffee and cacao producing coun-
tries, in section I.

3. *The stability of the investment coefficient*

Apart from the problem of the fluctuations in the investment coefficient, the fundamentally important fact remains that Latin America's investment effort is slackening. The investment coefficient is clearly declining at present, under the influence of the factors described above, and the outcome of this process must be established. In chart IV, the shape of the curve of the investment coefficient for the last thirty years might provide a basis for hazarding the hypothesis that it is tending to return to the approximate level of 14 per cent of the gross income at which it stood before the great depression, and which it almost reattained between the end of the depression and the Second World War. But knowledge of the economic dynamics of the region is still too rudimentary to allow valid conclusions to be drawn, and least of all from a mere chart. Furthermore, the period analysed is still short, and it has not yet been possible to examine the figures in greater detail to obtain a more thorough grasp of the process of development.

Nevertheless, it should be recognized that forces exist in Latin America which tend in the long run to give a certain stability to the investment coefficient, in the absence of any deliberate policy designed to raise it. This is by no means exceptional. Research carried out in the United States[17] shows that, notwithstanding all its fluctuations, the investment coefficient shifts relatively slowly.

Careful consideration indicates that there are forces which tend to make the shift in the coefficient a slow process in countries where the intensity of development has been closely dependent upon the rates of technical progress and demographic growth, as in the case of the United States. In fact, the rate of demographic growth does not change rapidly, nor does the rate of increase in productivity appear to have been subject to sudden fluctuations, despite a continuous succession of technical innovations. The rise in the population and the pace of technical progress were the two principal factors determining the need for capital; and their slow expansion seems in the past to have restricted capital formation, whatever may have been the volume of saving spontaneously generated by the economy.

It is clear that the progress of countries in course of development need not be so gradual as that imposed by productive techniques upon nations which have already reached economic maturity. The rapid assimilation of these techniques, unaccompanied by the necessity of following the various stages of their evolution, would enable more intensive growth to be achieved. Nevertheless, just as the development of the techniques followed a historic rate of growth, so their spontaneous assimilation also appears to maintain a pace that can only be modified by deliberate and persistent action.

An indispensable prerequisite for this possible speeding-up of the rate of technical conclusion is a rise in the investment coefficient. This is the important conclusion to which these preliminary considerations lead. A basic problem at once arises, both in practice and in theory. Can the interaction of economic forces cause an increase in the investment coefficient, or rather, can it be spontaneously and permanently shifted to a higher level? In order to

[17] See S. Kuznets, "Proportion of Capital Formation to National Product" in the *American Economic Review*, Vol. XLII, No. 2, May 1952. This report was submitted at the 64th Annual Meeting of the American Economic Association held in December 1951.

Table 10. Latin America: Index of the terms of trade, and product per unit of capital

(Three-year moving averages)

	Index of the terms of trade (1950 = 100)	Product per unit of capital
1926	77.6	0.42
1927	77.8	0.42
1928	78.7	0.43
1929	73.3	0.41
1930	63.5	0.39
1931	55.8	0.36
1932	53.7	0.36
1933	60.3	0.37
1934	64.7	0.38
1935	70.1	0.40
1936	72.7	0.41
1937	72.3	0.41
1938	69.7	0.41
1939	67.6	0.40
1940	66.6	0.41
1941	66.1	0.41
1942	63.4	0.42
1943	63.0	0.43
1944	62.6	0.44
1945	68.8	0.46
1946	77.7	0.48
1947	85.7	0.49
1948	87.1	0.48
1949	91.1	0.46
1950	96.6	0.45
1951	99.3	0.45
1952	98.5	0.44
1953	98.9	0.43
1954	101.1	0.43

Sources and methods: Figures calculated by the Economic Commission for Latin America.

accelerate the rate of growth by means of more rapid absorption of modern productive techniques, do internal forces exist which are in themselves capable of raising the investment coefficient?

Nothing is simpler than to give a numerical example of how it would be possible, by curtailing consumption for a number of years, to attain an investment coefficient which would result in such acceleration, thus compensating in the future the privations which higher current investment would inevitably entail. But more than a mere mathematical illustration is involved. The proportion of income utilized for consumption and investment as a result of the spontaneous interaction of economic forces is by no means arbitrarily determined. There is a close interdependence between the growth rate of investment and that of consumption in an economy based on private enterprise.

A distinction must now be made, which, to avoid confusion, should be borne in mind throughout section II. The subject dealt with here is the process of economic growth and not that of a cyclical recovery. Far from the growth of consumption and investment being incompatible, when unused productive capacity and unemployed labour exist, both can rise simultaneously. The topics with which this section is concerned are the long-term expansion of productive capacity and of real income, and the previous stimulus to demand which this necessarily implies.

The numerical example, mentioned above, is now relevant. If, for instance, consumption rises at an annual rate of 4 per cent and the product-capital ratio stands at 0.33—that is, if 3 per cent net of the product is required to raise consumption 1 per cent—for the latter to continue its steady increase at the given rate, the net coefficient of savings and investment must be 12 per cent, provided that the product-capital ratio remains constant. What spontaneous economic forces would induce the entrepreneur to invest enough for the investment coefficient to reach 15 per cent, so that, once this had been achieved, the future rate of growth of consumption might rise from 4 to 5 per cent? On the most favourable assumption—that is, if the entire increment in savings required to cover the higher investment were used to raise employment in capital goods industries, without increasing the volume of imports[18]—the demand of the newly employed labour would only offset the lower consumption of those who made this additional saving. Consequently, no additional demand would exist, which could bring about a higher rate of consumption and induce entrepreneurs to raise the investment coefficient; in any case, such inducement would have to precede rather than succeed a rise in that variable. If this transitional period is ignored and it is assumed that all adjustments have already been made in the different factors involved in the problem, it is possible to envisage the development of the economy adapted to a new investment coefficient and to a new rate of growth of production and consumption. But such an assumption would be arbitrary, because it is during the period of transition that the real difficulty appears. This obstacle is the incompatibility between a constant rate of growth of consumption and the spontaneous inducement to higher investment which would accelerate the rate of increase of consumption.

When economic growth follows the usual pattern, this ratio between the investment coefficient and the rate of consumption—determined in the last resource by the assimilation of productive techniques and by demographic growth —fluctuates cyclically. But deviations from the trend in one direction tend to be corrected by others of an opposite sign. This compensatory movement was perhaps partly responsible for the slowness of the long-term shift in the investment coefficient which took place in the United States.

It is unnecessary to repeat that these digressions are not merely of theoretical significance. On the contrary, they are based on a very important practical consideration. Latin America is faced with the urgent problem of speeding up its rate of growth. After the exceptional acceleration during the post-war years until 1952, a combination of factors seems to have reappeared which could be expected to warrant only the comparatively moderate rate of growth in income mentioned earlier. On the other hand, it is not clear how the incentives and resources required to quicken this pace through greater investment can be provided by the free interaction of internal economic forces.

Nor can any reliance be placed upon an increase in exports sufficiently rapid to give the expansion of internal

demand that stronger impetus without which there would be no vital incentive to raise the investment coefficient.

The next question to be dealt with is consequently the nature of the dynamic influence exerted by the growth of exports and the way in which the effects produced upon the rate of demand by a weakening in that growth can be corrected and overcome through the process of import substitution.

B. THE RATE OF GROWTH OF DOMESTIC DEMAND

1. *The expansion of exports and its stimulus to investment directed towards domestic development*

At this point consideration must first be given to the dynamic influence of external forces. Among their fluctuations, the most important role has already been assigned to those of the terms of trade. But a question of broader scope must now be discussed. It refers to the influence exerted upon the development of domestic activities through those fluctuations by the more or less intensive growth of exports and of their relative prices. This is basically a question of the growth of productive capacity throughout the whole economy, embracing both export activities and production for the domestic market. In the analysis that follows, the degree of utilization of existing productive capacity is left out of count.

After this explanation, three topics must be considered: firstly, the mechanism which enlarges the effects of the increment in exports upon internal demand; secondly, the relation between the growth rate of exports and that of gross income as a result of these repercussions; and, thirdly, the way in which the greater demand arising from the expansion of exports encourages an upward movement in the investment coefficient, thus accomplishing what the internal economic forces could not achieve spontaneously.

The mechanism and the elements determining the extent of the influence of exports will be examined first. According to the assumptions formulated in this section, an increment in exports, in response to foreign demand, requires previous investment, with a consequent expansion in the employment of productive factors and in their corresponding earnings. The rise in income creates higher internal demand and enables activities which meet this demand to expand many times more than the original impulse from which it arose, in accordance with the familiar concept of the foreign trade multiplier. But multiplication is not an automatic process, when idle capacity is non-existent. It primarily depends upon the degree to which entrepreneurs respond to the growth of internal demand. According to this assumption, the multiplier constitutes a value limit. According to this assumption, the multiplier constitutes a value limit. Whether or not real income can attain this limit is dependent upon factors which are discussed in the following paragraphs.

The limit is decisively influenced by the magnitude of the import coefficient. If this coefficient remains constant—which for simplicity's sake may be momentarily assumed—the limit of the increase in real income embodied in the multiplier is given by the reciprocal of the import coefficient.

Thus, if income stands at 1,000 and imports at 200 (equivalent to exports), the coefficient will be 0.20 and the

multiplier $\frac{1}{0.20} = 5$, that is the number of times imports are contained in income.

In pursuance of this numerical example, an initial increase of 10 per cent may be assumed in the volume of employment of the factors occupied in export activities, with a corresponding increment of 20 in income. This increment may bring about a rise of 100 in domestic demand and production, in accordance with the multiplier. When this limit is reached, the expansion of imports will be equal to the increment of 20 in exports. Beyond this point the additional demand created by the initial growth of employment and income will be exhausted; and were a further increase in demand, of an inflationary character, to intervene, the rise in imports would exceed that of exports.

In other words, an expansion of exports stimulates income to grow to a point where the increment in imports caused by such growth is equal to the increase in exports brought about by higher investment in export activities.

This intensification of the growth of real income is only conceivable if, by virtue of the stimulus given to demand by the export expansion, investment in activities producing for the internal market is raised. It is still only conceivable if other investments are made to meet the additional demand created by the original investment in internal activities, and so on successively until the aggregate investment required for the growth of real income is reached. The aggregate investment depends upon the average product-capital ratio and if this represents 0.33, as in the previous example, three units of capital per unit of product will be needed. In other words, the increment of 100 in income would require a previous additional investment amounting to 300. This would be true only if no unused capacity existed which might permit production to rise without increasing investment; but this possibility has already been dismissed, because a phenomenon of growth is being discussed, and not short-term fluctuations.

When unused productive capacity occurs during short-term fluctuations, it is understandable that savings may act as a brake upon the expansive effects of a rise in exports. But in the case considered here, savings are indispensable if productive capacity is to increase. Moreover, in this instance savings do not restrict demand, because those effected by some groups, while reducing their own consumption, serve to cover that of other groups, namely, the additional labour force, whose wages are paid out of such savings. There is thus a mere shift of consumption and therefore of the demand which precedes it. Without saving of this kind, development would be impossible. Consequently, the more saving responds to a given stimulus to internal demand, arising from the export sector, the higher will be the increase in productive capacity and the growth of real income.[19]

[19] It should not be forgotten in this connexion that the growth of real income presupposes two essential ingredients: saving and monetary expansion. Saving is necessary to cover the earnings of the increase in the productive factors employed in the formation of fixed and circulating capital. Monetary expansion is required to cover the earnings of such factors, to the extent necessary to absorb finished goods when they are produced by this additional capital. The economic process includes no mechanism to ensure the exact proportion in which these ingredients should be combined, if both an excess and an insufficiency of demand, in face of the increased production of finished goods, are to be avoided. It would be erroneous to confine the different variables involved to a simple mechanical formula.

2. The expansion of exports and the rate of internal growth

Such, in outline, is the process whereby the expansion of exports encourages that of internal demand. The relation between the growth rates of these two variables has not yet been defined, but it depends upon both the import coefficient and the investment required for growth.

It was assumed in a previous example that the import coefficient was constant. It was then proved that the limit of growth for a country's global income would be equal to the growth rate of exports, in a first approximation where other factors were held constant.

But the import coefficient is not necessarily constant. On the contrary, forces exist in Latin America's development which tend to raise it spontaneously and must be offset so that the growth may proceed at a rate which is at least equal to that of the increase in exports. The constant coefficient in fact implies that the demand for imports increases at the same rate as that of income; in other words, that its income-elasticity is equal to unity.

But this is not the case. The elasticity of the demand for imports is usually higher than unity, so that they tend to increase at a faster rate than *per capita* income. If this tendency is left to operate freely, the intensity of the growth rate of income will be inferior rather than equal to that of exports.

For greater clarity, reference may be made to the previous example where exports increased by 10 per cent, while the import coefficient remained constant at 0.20 on the implicit assumption that the income-elasticity of the demand for imports was equal to unity. The hypothesis will now be adopted that imports grow at a more intensive rate than income, with an elasticity of 1.40, for example. This does not imply that they will necessarily grow more than exports, but that the increment in the latter will have weaker expansive effects upon income than previously. It is easy to prove the extent to which these effects will be lessened. If income has to grow by 1 per cent for imports to rise by 1.4 per cent, then the former will have to rise $\frac{0.10}{0.014}$, or 7.14 per cent so that the latter can expand at 10 per cent, that is, to the same extent as exports. In other words, the growth rate of income will be equal to that of exports divided by the elasticity coefficient.

In its turn, the import coefficient corresponding to the rise in income—that is, the marginal coefficient—will have increased to the same extent as elasticity ($0.20 \times 1.4 = 0.28$), which means that the multiplier—whereby the effects of the increment in exports are enlarged—will no longer be 5, as in the preceding example, but less, or: $\frac{1}{0.28} = 3.57$.

It is therefore clear that the more intensively imports rise with the growth of income, the less will be the expansive effect of a given increase in exports upon the internal economy. The maximum growth rate of income will be lower than that of exports, to the extent that the elasticity of the demand for imports is higher than unity. Conversely, if imports tend to expand less than *per capita* income (elasticity lower than unity), the maximum growth rate of income will be higher than the rate of increase of exports, a point which will be discussed at more length later.

A more rapid rise in exports than in income is not a mere hypothesis. During the first stage of Latin America's

development, when growth was determined by external factors—the increase in exports and foreign investment in the export sector—the growth rate of income appears to have been lower than that of exports, thus resulting in a higher import coefficient. This does not imply that development was slow, since exports of primary products increased rapidly. They did so, not only because of the increment in income in the great industrial centres, but also—to judge by what happened in the most important of them at that time—because the expansion of the latters' imports of primary products tended to outstrip that of their income.

It is, indeed, an established fact that the import coefficient of the United Kingdom rose continuously from the Industrial Revolution until the end of last century. The reason was not that the income-elasticity of the demand for primary products in the United Kingdom was greater than unity, as is often the case with the demand for industrial goods on the periphery, but rather that British imports expanded to the detriment of domestic production. A type of inverted substitution took place, so that even if the income-elasticity of the demand for primary products was lower than unity, that of imports of such commodities was definitely higher than unity.

3. *The growth of exports and the rise in the investment coefficient*

The present stage of Latin America's development poses a problem entirely different from that arising in its earlier period of externally induced growth. Relatively speaking, the expansion of exports has slackened with the years. Although successful efforts could be made to increase them, the rate of development would be extremely weak if it depended upon exports alone, because, in addition to their slow growth, the income-elasticity of the demand for imports is as a rule higher than unity. From this and other equally important aspects, Latin America is at present developing under much less favourable conditions than those which prevailed in the United States. During the nineteenth century, United States exports rose steadily at a rate of 3.6 per cent annually. In contrast, during the last thirty years aggregate exports from Latin America have expanded at an annual rate of only 1.14 per cent. In order to reach the rate of growth in income, which was in fact attained (3.7 per cent annually), the import coefficient had to be drastically reduced.

The third aspect of the problem, namely, the stimulating effect of the rise in exports upon the investment coefficient, can now be examined. If the increase in exports is such that it causes the growth rate of internal demand to rise, although not necessarily with the same intensity, the vital stimulus required to raise the investment coefficient would have been achieved. The increment in the latter is a prerequisite if the accelerated growth of internal demand is to induce a higher rate of increase in real income.

In this case, the incompatibility already noted between a parallel rise in consumption and in investment would no longer exist. In fact, if free play is given to the economic forces, the investment coefficient cannot rise without the incentive of an increase in the growth rate of consumption; this cannot take place unless the investment coefficient grows.

This vicious circle can be broken by raising exports, because it provokes a rise in the rate of growth of internal demand. If, to meet this demand and to expand consumption, the savings coefficient (and the corresponding investments) increase, these higher savings do not act as a brake upon the growth of the former. The only consequence is that the decline in consumption of those who save more benefits the newly employed labour, whose earnings are paid from these additional savings.

Thus an essential condition for the expansion of the investment coefficient is fulfilled: it must be preceded by an increase in the growth rate of demand.

From another angle, it is a different problem whether savings will or will not react to the stimulus. During the period when the growth of the Latin American countries was externally induced, the primary impulse to their economies arose from investment in the export sector, related activities and basic services without which these countries could not have developed as they did. But the intensive growth of income progressively created favourable conditions for a gradual rise in the coefficient of domestic saving. Although this point is important, it will not be discussed here, since this analysis at present aims only at clearing the ground for consideration of the expansive effects of import substitution.

4. *Import substitution and the rate of internal growth*

At best, the growth rate of income could not have exceeded that of exports without progressive import substitution, although, within moderate limits, exports could have expanded further. But this is another aspect of the problem which is not pertinent at this stage. The dynamic effects of import substitution are similar to those of an increment in exports. They permit the attainment of a higher rate of development than can be reached by raising exports. Clearly, this higher rate of development ultimately depends upon an increase in the active population and in its productivity, accompanied by the typical shift of man-power from primary production for the domestic market and from artisan trades to industry and other activities of higher productivity, to the extent that man-power is not required to develop the export sector. It is also indispensable that a previous rise in the growth rate of demand should create favourable conditions for accelerating the rate of capital formation, without which the steady increase in man-power cannot be absorbed with rising productivity. Briefly, the following is the role played by greater employment in activities for import substitution: the acceleration of the growth of internal demand, which leads to a higher rate of economic development, in so far as export activities cannot achieve this objective.

Before proceeding further, one point requires elucidation. The term import substitution is used in its broadest sense. It refers not only to the domestic production of articles currently imported, but also to that of other domestic goods or services towards which demand shifts when certain imports are restricted. In both cases, there will be an increase in employment and earnings in internal activities, which will have an expansive effect similar to that which occurs when employment in the export sector rises. This analogy refers exclusively to the impact on domestic demand, since the effects of the substitutive process, viewed from another angle, usually differ from those arising from higher exports. Furthermore, they are generally of a much

more complex nature. Greater employment in import substitutive industries brings about a primary expansion of income that stimulates both demand and the investment required for the expansion of productive capacity in other domestic activities. Once again this is a phenomenon of growth and not of a better utilization of existing capacity. In such an expansion, the multiplicand is given by the increment in income resulting from the rise in employment in import substitutive activities, while the multiplier, which sets the limit for the growth of income, is the reciprocal of the import coefficient. The growth of income will cause higher imports, but they will be offset by the reduction achieved through the process of substitution.

Another simple example will make this clearer. An income-elasticity of the demand for imports equal to unity will be assumed, to avoid introducing a second element of contraction into the import coefficient, although such a factor could easily be accounted for later. Assuming an income of 1,000, which did not increase because exports and imports remained at a level of 200, the import coefficient would then be 0.20 and the multiplier 5. Under such conditions, if a substitution of imports of the order of 20 were achieved, the coefficient would fall to $\frac{180}{1,000} = 0.18$, and the multiplier would rise to $\frac{1}{0.18} = 5.555$. With this multiplier, the increment in income corresponding to a rise of 20 in employment in the import substitutive activities might reach a limit of 111.11. At this limit, the additional imports caused by higher income would be equal to the imports which were replaced.[20]

If the income-elasticity of demand were assumed to be greater than unity, instead of equal to it, the multiplier would obviously be lower—as was seen in the case of exports—and a greater degree of substitution would be necessary to reach the same limit of income growth. In other words, the higher the elasticity coefficient stands above unity, the smaller will be the multiplier and the more intensive must be the effort towards substitution to obtain a specific growth rate for internal demand.

Hitherto import substitution only has been discussed. Another example must be considered if this brief explanation is to be complete. This new example refers to a simple curtailment of imports without any substitution whatsoever. This situation might occur, for example, if heavy duties were placed on superfluous or non-essential imports. Their volume would be reduced, and from the income which would have been spent on the suppressed imports, a part would be diverted to the internal market, thus promoting the production of the same or other goods and services, and another part would be absorbed by the duties. The expansionist effects of the former share have already been noted.

The second part would also cause similar consequences, unless the State hoarded this revenue. If, on the other hand, these resources were used to increase employment, either through public investment or current expenditure, the rise

in income thus generated would expand domestic consumption and real income to the limit set by the multiplier. Consequently, this example might very well be compared with that of import substitution.

Given the similarity of these processes for expanding demand, which were explained when the same problem was analysed in dealing with exports, it would be superfluous to demonstrate once more the essential need of raising the investment coefficient, so that the higher rate of increase in demand may find expression in an acceleration of the growth rate of income. Nor is it necessary to emphasize further that the stimulus to demand thus created would reconcile the incompatibility between the increases in the rate of investment and in that of consumption arising from the spontaneous interaction of economic forces.

5. *Public investment and growth of income*

It may have seemed strange that when the factors capable of increasing demand were examined, no mention was made of public investment. Its stimulating influence will hardly be questioned when productive capacity is lying idle or when an increment in such investment is partly or totally financed through credit expansion. In such a case, demand undoubtedly does rise. This analysis, however, is not concerned with a recovery of this nature, but with the process of growth. What then would be the effect upon demand of an increase in public investment?

The answer also depends on the way in which such investment is financed. If the resources accruing from heavier taxation are used, the increase in income corresponding to the additional volume of employment caused by public investment will have no expansive effect whatsoever. There will simply be a shift in the demand, as was explained elsewhere: the demand of the newly employed will offset the reduction in the consumption of those who save more or who pay the higher taxes destined to provide resources for increasing such investment.

Conversely, if this increase is financed in some different way, for instance, by credit expansion, there will be a rise in demand of undoubted expansionist influence. When this occurs, however, imports will also rise, thus provoking an external disequilibrium which will ultimately become an insurmountable obstacle to the process of expansion. It therefore appears unlikely that public investment can serve as an effective instrument to raise the rate of growth of demand and income in the present context.

Nevertheless, it might be thought that if the increase in public investment were to be combined with a policy of substitution, the obstacle described would disappear. If the rise in employment resulting from public investment were accompanied by a more extensive substitution of imports, the one expansive process would be superimposed on the other, and imports would grow faster than their substitution. The resulting disequilibrium could only be avoided if the additional investment were financed by savings, but there would then be no expansionist effects whatsoever.

As far as actual growth is concerned, therefore, heavier public investment offers only one possibility of producing expansionist effects, namely, the case analysed above, where the increment in investment is financed by a duty restricting imports that are not replaced by domestic production. This means of expansion—which is as effective as

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[20] It might have been argued that the marginal coefficient of imports, corresponding to the increase in income, is equal to 0, since the rise in imports caused by such an increase is as large as the decrease effected by the process of substitution. This of course makes no difference to the logic of the argument or to its results.

that resulting from higher employment in export or substitutive activities—could be beneficially applied in those countries where there is an appreciable margin for the reduction of the demand for certain imports by means of tariffs. But import substitution would still be necessary, since productive capacity must be increased if the growth of demand is to result in a rise in real income. For this purpose, additional imports of capital goods would be required, which could only be made by replacing other imported commodities with domestic products. At all events, once the margin of imports which can be reduced through taxation is absorbed—which is bound to occur sooner or later—the only way of raising the rate of growth of demand and real income will be through the steady increase of employment in substitutive activities, in so far as the inadequacy of the export sector as a dynamic agent makes it necessary.

One last comment remains to be made. Latin America's exports tend to increase slowly, and even if efforts to accelerate this process proved successful, a rate of growth compatible with the present level of investment could hardly be attained. For this reason, and because of the high income-elasticity of demand for imports, a policy of substitution must be vigorously pursued under more difficult conditions than before; these conditions could be eased however—as has been pointed out in other reports—by a broader basis for inter-Latin-American trade.

Import substitution would need to be far more intensive in order to accelerate the rate of economic growth. The investment coefficient would have to rise, and should it not seem desirable or feasible to reduce per capita consumption, it would be necessary to resort to external sources of financing. Other ECLA reports have emphasized the transitory nature of the need for external resources, if measures are adopted to raise the domestic savings coefficient high enough to finance the entire investment required. It has also been shown that these measures can be carried out as per capita income rises. Herein lies, however, one of the most difficult problems for development policy, since the population does not readily change its savings pattern. Special incentives and a clearly-defined and coherent policy will be required to alter it. Government saving from the budget surplus will possibly have to increase to the extent necessary to supplement spontaneous private saving.

It is not this topic, however, which will now be discussed, but another, related to import substitution. The utilization of external resources will enable capital goods imports to be increased in order to accelerate the rate of growth of income. But as the coefficient of national savings rises, consumption declines in the same proportion, instead of increasing at the higher rate corresponding to the more rapid growth of income. There will thus be no incentive to invest in conformity with the new coefficient, and it will be vital to offset the effects on internal demand of a rise in the coefficient of national saving. This can only be achieved in two ways: either by substituting domestic production for capital goods imports so that additional savings are not diverted abroad; or by effecting new substitutions of consumer goods, raw materials or fuels in order to offset the consequences of this transfer of savings.

C. IMPORT SUBSTITUTION AND EXTERNAL TENSION

1. *The scope of the substitution problem*

Apart from the foregoing, there is another aspect of the substitution problem important enough to deserve more thorough analysis. The magnitude of this problem, in other words the degree of import substitution required by Latin America, will now be examined. It depends upon the rate of growth of income and of the capacity to import. For example, if the 1954 investment coefficient and product-capital ratio were maintained, the region's annual rate of growth would be approximately 3.7 per cent; and if the capacity to import were to increase at the same relatively low average rate of 1.5 per cent as during the last thirty years, import substitution would have to take place at a rate of 2.2 per cent annually, representing the difference between the two preceding rates.

Substitution calls for previous investment, which in turn requires imports of capital goods. The volume of the latter depends on the product-capital ratio, on the one hand, and on the import content of investment, on the other. As before, it may be assumed that three units of capital are required to obtain one unit of product. If the import coefficient were 0.36 (which is roughly what the import content of investment has been in Latin America during recent years), approximately 1.10 units of capital goods would have to be imported to enable one unit of imports to be replaced. This would imply that for substitution to proceed at the rate of 2.2 per cent annually, previous imports of capital goods equivalent to 2.4 per cent of total imports would be required.

Such purchases would be made at the expense of other types of imports. It would obviously be pointless to import these new capital goods to the detriment of goods of the same kind at present being imported, or of raw materials and fuels. These three items account for about 70 per cent of aggregate Latin American imports, and finished consumer goods represent only the remaining 30 per cent. Consequently, the new imports of capital goods, equivalent to 2.4 per cent of aggregate imports, could be effected only by lowering the volume of imports of consumer goods by about one-tenth.

2. *The timing of substitutions*

On the face of it this would not appear to present a serious problem. In normal times, there is usually a sufficiently wide margin to permit a compression of this magnitude in imports. But in fact substitutions do not in general proceed gradually: very often they result from sudden pressures and not from a far-sighted policy. Thus, in periods of relative abundance of foreign exchange full advantage is not taken of the opportunity to import the capital goods required by substitutive activities, since at such times the need to foster these activities is not in evidence. When the growth of income or the weakening which sooner or later takes place in the capacity to import results in external pressures, substitution very often becomes a peremptory need. It is then necessary to accelerate a process of substitution which should have been effected over several years, and to do so at a time when the capacity to import is far from favourable. In Latin America, extreme examples are to be observed in which this capacity is barely sufficient to meet the most pressing current needs.

When such a situation occurs, recourse to foreign sources of financing becomes essential, no longer with the aim of accelerating the rate of development, but merely to carry out those substitutions which are indispensable to maintain a country's current rate of growth. This is a question not only of investment but also of the practical possibilities of achieving the required substitution economically and within a reasonable period of time. The situation varies considerably within Latin America. However, it is not this problem, important though it is, that will now be analysed, but that of the capital goods imports required for the substitution.

At a critical moment of the kind described above, the perturbing maladjustments brought about by inflation become very clear; and even before such a point is reached, it is doubtful whether inflation can be an efficient mechanism for a development policy, which requires great foresight in relation both to substitutive activities and to other primary requirements of domestic development. In fact, the most typical feature of inflation, under favourable external circumstances, is that present comfort blurs awareness of the future.

A pause at this significant point is indicated. In a far-sighted substitution policy, advantage would be taken of periods of relative foreign exchange ease in order to import the required capital goods by restricting non-essential or superfluous imports of finished consumer goods.[21] Inflation usually increases investment only when profits increase, thus modifying the distribution of income in favour of entrepreneurs. However, this leads not only to higher investment, but also, above all, to higher entrepreneurial consumption, the latter growing at a much faster rate than the former. Moreover, the consumption of the high-income groups generally has a larger import content than that of the lower-income groups. Thus, when the investment stimulated by inflation takes under favourable circumstances the form of capital goods imports, the latter are generally accompanied by a large volume of consumer goods imports, which, within an adequate substitution policy, would have been restricted in favour of additional imports of productive goods.

3. A far-sighted substitution policy

This is not the first time that ECLA reports have referred to the need for a carefully thought-out substitution policy. On the contrary, this is one of the subjects which, because of its importance, has been most emphasized. Moreover, the necessity of such a policy is one of the main justifications for the programming of economic development. These ideas are worth recalling in outline. A well-conceived programme based on careful projections of future demand for consumer and capital goods and of the capacity to import gives an approximate idea of the quantity and nature of the substitutions to be effected if a specific rate of development is to be achieved without the periodical external disequilibria which have so often afflicted the countries of Latin America. A substitution policy must therefore anticipate events and take advantage of periods of foreign exchange ease to restrict non-essential imports

and to purchase the capital goods required, so that the composition of imports may adjust itself to the changes in the structure of the economy that are inherent in development.

Again, in such a programme a systematic analysis should be made of the possibilities of improving the utilization of existing capital before increasing productive capacity with new capital goods imports. How far additional capital goods imports are possible will depend on the extent to which greater utilization of the productive capacity is attained. It is superfluous to emphasize the practical importance of this.

Ultimately, the fundamental objective of a programme is to achieve a more rational utilization of the limited resources available in order to speed up the development of a country or to maintain the satisfactory rate already existing. The more efficiently this purpose is fulfilled, the more it will be possible to reduce the supplementary foreign investment required to raise the investment coefficient.

4. THE INFLATIONARY STIMULUS OF DEMAND AND ITS CONSEQUENCES

1. An optimum example of inflation

Despite the preceding statements, a combination of a substitution policy with a moderate inflationary expansion is conceivable. The possibility of employing inflation to foster investment under certain specific conditions should not be entirely overlooked. But these conditions are seldom or never encountered in reality. It is thus advisable to examine some topics on which confusion frequently arises.

A distinction is sometimes drawn between an inflationary process which encourages speculation or is simply the result of inordinate fiscal expenditure, and an inflation which makes a positive contribution to economic development. The possibility of the latter type of inflation might be logically demonstrated. A series of moderate inflationary impulses can conceivably arise, from an increase in public investment for example, which would have two consequences. Firstly, it would stimulate demand. Secondly, entrepreneurs would be provided with excess profits which would enable them to make the necessary investments to meet this enlarged demand. Of course the increase in profits accrues from the inflationary rise in prices. But such a rise need not necessarily continue beyond a certain limit, since after some time the investment made by entrepreneurs will begin to bear fruit. If the monetary expansion originating in public investment is not greater than the increases in production thus achieved, there is no reason for prices to continue to rise. The price level and the volume of profits already attained, which permits entrepreneurs to maintain the volume of investments, will remain unchanged. The greater the share of profits earmarked for investment instead of consumption, the greater the dynamic impact of this type of inflation.

To paint a still more favourable picture, it has also been assumed that this cautious inflation could be combined with a far-sighted import substitution policy to prevent the emergence of external obstacles to the growth of income. If this could be achieved, inflation would have proved to be an efficient means of reconciling the incompatibility between increases in the rate of investment and in the rate of demand which was observed to be inherent in the spontaneous interaction of economic forces. It is therefore

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[21] This does not imply that only imports of these goods can be curtailed, but that these are commodities which can be eliminated without affecting economic activity; on the other hand, in order to reduce imports of raw materials or of indispensable consumer or capital goods it would be necessary to import beforehand the capital goods required for the production of substitutes.

important to discover what really stands in the way of such a policy.

2. Reasons why inflation does not usually increase capital formation

Apart from external factors which it is not pertinent to discuss here, there are two additional reasons why inflation does not lead to higher capital formation. The first concerns the volume of profits earmarked for investment; the second relates to the curtailment of consumption. As to the former, this optimum case that has just been presented, in which the whole inflationary increment of profits is assumed to be utilized in investment and not in consumption, is remote from the experience of Latin America. In Mexico, which is one of the countries where inflation has had some positive effect on investment, a redistribution of income in favour of the higher-income groups allowed them to increase their consumption about ten times more than their investment,[22] since their savings-investment coefficient of about 20 per cent of income remained virtually unchanged. The effect of inflation on capital formation was therefore very weak.

As to consumer pressure, it is highly unlikely that the large groups of the population unfavourably affected by the inflationary redistribution of income will not attempt to restore their real income to its previous level. This is precisely what fosters the continuous rise in prices, even when production increases steadily. It is evident that if higher wages and salaries were paid for by entrepreneurs out of their unusually large profits, the latter would disappear, so that the expansion of investment would be replaced by an increase in consumption. Inflation would then be checked and the economy would return to something like its original position, although at a higher price level. This has not been the usual experience in Latin America. Salary increases are financed by an expansion of bank credit and inflation thus goes on in the well-known price-wage spiral. In such a case, the proportion of real income received by the entrepreneur depends partly on his willingness to have recourse to the credit system and the latter's responsiveness, and partly on the ability of employees and workers to defend their real wages.[23]

It is true that the gradual increase of productivity might enable the wage-earners to recover the real income lost, even if the level of profits remained unchanged. But the process is slow; and it would not be superfluous to consider the magnitude of the loss and the time required for its recovery, in order to see this aspect of the case in its true proportions.

Another useful numerical example may be constructed on the assumption that the rate of growth of income in a given country barely keeps in line with that of population, and that it is desired to increase this rate of growth through inflation. It is further assumed that the share of wages, salaries and other income which might be affected by inflation is 60 per cent of total income, while the remaining 40 per cent represents the proportion received by entre-

preneurs, a distribution which reflects reality. As in other cases, it will be established that about three units of capital are required to obtain one unit of product. A final premise will be that the economy is not affected by any external disequilibrium. For per capita income to increase 1 per cent annually, the investment coefficient would have to be raised to 3 per cent of income. How much would the income of the entrepreneurial sector have to increase to achieve this rate of investment? This depends on the share of profits saved; if it were 50 per cent, profits would have to rise to 6 per cent of total income for the savings-investment coefficient to increase by 3 per cent; and as this 6 per cent rise would be at the expense of the rest of the population, made up mostly of employees and workers, their aggregate real income would have to be reduced to 54 per cent to enable the entrepreneurs to make the additional savings. Since rentiers and, as a rule, property-owners are among those adversely affected by inflation, a major share of the burden might fall on their shoulders, as, indeed, is usually the case. Nevertheless, the 6 per cent reduction affecting the wage-earners gives an idea of the extent to which this important component of income suffers.

How long will it take to restore this loss? If real per capita income grows at a rate of 1 per cent annually, seven-and-a-half years would seem sufficient, or less if all the increment in productivity were used to this end. If, however, this is not the case, a longer period will be required. It should be recalled that the gradual transfer of the labour force from low-productivity occupations to others of relatively higher productivity is typical of development in Latin America. Consequently, a considerable proportion of the increments in per capita income is derived from this transfer. If average productivity increases at an annual rate of 1 per cent, the income of those already employed in activities with high productivity will rise less, and the recovery of the lost real income will therefore take longer.

In short, the high proportion of the inflationary increase in their profits used by entrepreneurs for consumption; the tension created by this increase of consumption, investment and income, which weighs heavily on the balance of payments; and the reaction of employees and workers in defence of their real wages, all make inflation a very dubious instrument for the promotion of investment. If such were not the case, the close relationship observed between the terms of trade and the investment coefficient over the last thirty years would undoubtedly not have existed. This does not imply, however, that in certain cases inflation may not have had favourable effects upon investment. But if this has happened, it has been at an extraordinarily high social cost, which once again shows the immediate incompatibility of the aim of accelerating investment with that of simultaneously raising the level of consumption of the lower-income groups.

III. INFLATION AND ANTI-INFLATIONARY POLICY

A. THE EXAMPLE OF CHILE

1. The slow growth of Chile's economy

(a) The background to inflation. Chile presents a conspicuous example of factors militating against a higher rate of growth. This situation is combined with a persistent and ever-spiralling inflation, which, far from stimulating development, tends to restrain growth by its disturbing consequences.

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[22] While the share of profits, interest and rentals in net income rose from 34.5 per cent to 51.0 per cent between 1939 and 1952, the proportion which the propertied sector invested rose only from 19 to 22.6 per cent of total available goods and services during the same period. See Economic Survey of Latin America, 1951-52, op. cit., p. 84.

[23] In section III of this chapter it will be seen how interesting is the case of Chile in this respect.