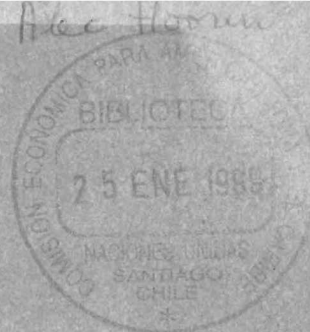




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Economic Bulletin for Latin America

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America, Vol. IX N° 1 1964

The *Economic Bulletin for Latin America* has been published by the secretariat of the Economic Commission for Latin America twice yearly since 1956. The essential purpose of this periodical is to provide a résumé of the economic situation of the region designed to supplement and bring up to date the information published in the Commission's annual economic surveys. Apart from this summary, which is to appear in every issue, special articles on different subjects related to the economy of Latin America are included.

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EXPLANATION OF SYMBOLS

Three dots (...) indicate that data are not available or are not separately reported.

A dash (—) indicates that the amount is nil or negligible.

A minus sign (—300) indicates a deficit or a decrease.

A space is used to separate thousands and millions (3 123 425).

A stroke (/) indicates a crop year or a fiscal year, e.g., 1954/55.

An asterisk (*) is used to indicate partially or totally estimated figures.

"Tons" and "dollars" are metric tons and United States dollars, respectively, unless otherwise stated.

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THE GROWTH AND DECLINE OF IMPORT SUBSTITUTION IN BRAZIL*

I. THE IMPORT SUBSTITUTION PROCESS VIEWED AS A MODEL OF RECENT DEVELOPMENT IN LATIN AMERICA

A. CHANGES IN THE LATIN AMERICAN DEVELOPMENT MODEL

1. Features of the export model

A cursory review of the salient features of the traditional externally oriented Latin American development model will make clear how it differs from the more recent development model described below.

It is usual to stress the strong influence of the external sector in the primary commodity exporting countries, with particular reference to the part played by the two basic variables: exports, as an exogenous factor responsible for the generation of a substantial share of the national income, and for its growth; and imports, as the flexible source of supply of the various types of goods and services needed to satisfy an appreciable part of domestic demand. However, this synthetic description does not bring out the special significance of these two components in the under-developed countries. Hence, if the external sector's role in those countries is to be fully grasped, it must be compared with the role played by that sector in the economies of the "centre". This will reveal some of the main features of the model to be analysed.

In the European development process the external sector generally predominated, and essentially performed both the above-described functions. Nevertheless, even from a fairly abstract standpoint, it can be seen that there were substantial qualitative differences in the behaviour of the external sector in the two types of economy.

* This paper represents the greater part of a study prepared by the Development Centre in Brazil, set up jointly by the Economic Commission for Latin America (ECLA) and the Banco Nacional do Desenvolvimento Econômico (BNDE). The study is now undergoing final revision and will be published in mid-1964. Like all research of this type, it is the result of the efforts and observations of several workers. At the outset the work was directed by the economist Charles Rollins; subsequently this task was taken over by the economist Maria Conceição Tavares, who is responsible for the text and arrangement of the present version. She was assisted by the senior staff of the Centre and also, as regards the gathering of background material, by Mr. Roberto Andrade and Mr. Elder Motta.

Let us first examine the part played by exports in both cases. In the case of the industrial "central" economies, although exports were an important and dynamic factor in generating the national income, and essential to its expansion, the growth of the economy did not depend wholly or even primarily on exports. In fact, that external factor was combined with a highly important internal factor, namely, autonomous investment coupled with technological innovations. The combination of those two internal and external factors made it possible at the same time both to take advantage of the opportunities offered by the external market and to diversify and integrate domestic production capacity.

In the Latin American countries, on the other hand, not only were exports virtually the only autonomous source of income growth, but the export sector was the dynamic centre of the whole economy. Admittedly its effect in diversifying production capacity was necessarily limited, since the external sector rested on the narrow basis of only one or two primary commodities; in addition its influence on the rest of the system depended in practice on a series of factors, in particular the type of production process adopted, and whether or not the sector constituted an enclave of foreign ownership. In short, the degree to which export activities influenced the general economy of each country depended on the nature of the production process of these primary commodities, and the extent to which it multiplied and distributed income.

Generally speaking, the development of the export sector gave rise to a fairly intensive urbanization process, during which what are known as the "residential" industries (textiles, footwear, clothing, furniture, etc.) were established. These are, of course, traditional, low-productivity industries that are found in nearly all the Latin American countries, and arose out of the primary-export model itself.

The pertinent fact, however, is that this small-scale industrial activity, combined with a subsistence agriculture, was insufficient to impart to the domestic economy a vigorous growth of its own. Thus, economic growth remained essentially harnessed to the behaviour of external demand for primary commodities, and this

is what has given the Latin American economies their pre-eminently dependent and vulnerable character.

Moreover imports, as well as being different in structure, played a different part in the economy. In the open economies at the centre of the system, the function of imports was primarily to supply food and materials that could not, on the basis of the country's natural resources, easily be produced domestically. In the Latin American economies, on the other hand, imports were required, in addition to meeting much the same needs, to supply whole ranges of finished consumer goods and practically all the capital goods required for the investment process induced by the exogenous growth of the national income. Thus the role of the external sector, as a means of filling the gap between demand and domestic production, is of a very different nature, which is largely responsible for the subsequent change in the development model.

Essentially, the problems of the outwardly directed growth that is typical of the Latin American economies are clearly linked to the pattern of international division of labour that arose out of the development process in the advanced economies, and which for the peripheral countries led to a social division of labour entirely different from that prevailing in the centre countries.

In the more advanced countries there is not, and never has been, any clear dividing-line between two sorts of production capacity, one to meet domestic and another to meet external market needs. There is no export sector as such: manufactured goods are both exported and consumed in large quantities within the country, and any specialization for the external market that exists is in terms of specific products rather than of different sectors of production.

In most Latin American countries, on the other hand, there is a clear social division of labour between the external and internal sectors of the economy. The export sector was, and still is, a well-defined sector of the economy, usually with a high level of productivity, specializing in one or two commodities of which only a small proportion is consumed within the country.¹ The internal sector, on the contrary, with its low productivity level, was primarily a subsistence sector, and met only part of the food, clothing and housing needs of that section of the population whose consumption was within the monetary economy.

Moreover, the high concentration of ownership of natural resources, especially capital, in the more productive export sector gave rise to an extremely unequal distribution of income. Thus while the income of the bulk of the population was so low as virtually to exclude them from the monetary economy, the high-income groups maintained levels and patterns of consumption similar to those prevailing in the large European centres, based largely on imports.

The combination of this dual pattern of division of labour with a marked inequality in personal income distribution was therefore responsible for the great difference between the structure of production and the

¹ One of the few exceptions is Argentina, where this division is not so clear and a substantial part of the output of its two chief export commodities is consumed in the country. However, the basic character of the export sector is the same, as regards specialization, and the remarks that follow also apply.

composition of internal demand, which was made good by foreign trade. This, in the last analysis, is the most important feature of the primary-export model for an understanding of the post-Depression change.

2. *Collapse of the traditional model and transition to a new one*

From 1914 to 1945 the Latin American economies underwent successive foreign-trade crises as a result of twenty years of war and/or depression. The long Depression of the thirties, however, may be taken as the critical point at which the primary-export model broke down. The sharp decline in export receipts caused an immediate drop of 50 per cent in the importing capacity of most of the Latin American countries, and broadly speaking this capacity never, even after its recovery, regained its pre-crisis levels.²

Despite the severe impact of the Depression on the external sector of the Latin American economies, they did not remain in a prolonged state of depression like the more developed economies. The extent of the external imbalance impelled most Latin American Governments to take measures to protect internal income, thus anticipating the economic policy of compensation that was only later advocated by the "centre" countries. These measures consisted primarily in import restrictions and controls, the raising of exchange rates and the purchase of financing of surplus output, and were aimed more at protecting the country against external disequilibrium than at stimulating internal activity. Nevertheless, the industrialization which then began was undoubtedly buttressed by the maintenance of internal income resulting from that policy.

Let us now consider briefly, and in general terms, how the new internally oriented development model came into being.

Since the existing level of demand remained at virtually the same level, while the capacity to import was sharply reduced, it was no longer possible to make an *ex ante* adjustment between the structures of production and of domestic demand by means of foreign trade. An *ex post* adjustment was made through a substantial increase in the relative prices of imports, which provided a sharp stimulus to domestic import-substitution production. By making full or even excessive use of the existing production capacity, it was possible to replace a proportion of the goods formerly imported. Later on, by a re-allocation of factors, especially the foreign exchange that was in such short supply, the available capacity to import was used for external purchases of the capital goods and raw materials needed to establish new production units and thus continue the import substitution process.

A lengthy description of the dynamics of this process is unnecessary, since it is dealt with in detail below. But the important fact is that it represents the emergence of a new development model.

The first point to be noted is the change in the economy's growth factors. There was a decline in the external sector's contribution to the national income

² See the many ECLA studies on this subject, in particular the *Economic Survey of Latin America 1959* (E/CN.12/164/Rev.1) United Nations publication, Sales No.: 51.II.G.1.

and an increase in the contribution of domestic production, and in its growth rate.

The external growth factor, exports, yielded first place to the internal factor, investment, and the amount and composition of investment were what determined the continuation of the development process.

This does not mean that the external sector no longer played a major part in the Latin American countries, but merely that its function changed: instead of being directly responsible for income growth, through increased exports, it became the decisive factor in diversifying the structure of production, through imports of equipment and intermediate goods.

This explains how it is possible to achieve a reasonable rate of investment, and consequently of growth, despite a temporary stagnation or decline of the purchasing power of exports, provided that the composition of imports can be altered by reducing non-essential imports in favour of capital and intermediate goods.

There are other points that need to be made clear, for a better understanding of Latin America's new development model.

In the first place, the changes in the structure of production were virtually confined to the industrial sector and to allied activities, and had little or no effect on the situation of the primary sector—including, of course, the traditional export lines. Hence two circumstances to which there will be occasion to refer later. One is the persistence of a precarious and undynamic export base, which is one of the causes of the chronic external bottleneck; the other is the incomplete nature of the transformation of the economic system, and the consequent emergence of a new type of dual economy.

Secondly, there is the well-known fact that the new dynamic sectors are established and expand within the narrow framework of the domestic market, which imposes a "closed" character on the new model.

If these characteristics are examined from a broad standpoint, it can be asserted that the change in the division of labour (or resources) in a country resulting from the industrialization process typical of the region was not accompanied by any corresponding change in the international division of labour, which remained basically the same, at least as regard the special functions of the industrial and the under-developed economies in world trade. In fact, the only appreciable changes that took place were in the trade within the group of "central" nations.

In essence, many current aspirations and movements, such as those relating to the regional integration of Latin America or the United Nations Conference on Trade and Development, are based on or imply new patterns for the international division of labour (or resources), in line with internal changes and with the need to accelerate the growth rate of developing countries by expanding their foreign trade.

To sum up, the import substitution process may be interpreted as an incomplete and "closed" development process which represented an attempt, in response to foreign trade restrictions, to reproduce in an accelerated form the industrialization carried out in the past by the more developed countries, but in entirely different conditions.

3. *Nature and evolution of the external bottlenecks*³

Since a decline in the dynamism of the external sector is one of the dominant features of the import substitution model, and is actually found in nearly all the Latin American economies, it deserves to be examined in some detail.

First, a distinction can usefully be drawn between the two main types of external bottleneck, namely, the "absolute" form, representing a stationary or declining capacity to import, and the "relative" form, representing a capacity to import that increases more slowly than the product. The first type of bottleneck is usually related to contractions of international trade in primary commodities, and the second to long-term trends in primary commodity exports.

Although there is no shortage of material on the vicissitudes and behaviour of the Latin American external sector, for the purpose of subsequent analysis it is useful to recapitulate briefly the main features.

Up to the end of the Second World War neither the volume nor the purchasing power of exports had regained their pre-Depression levels. After the war the purchasing power of exports rose in absolute terms, because of the increased volume exported and a temporary improvement in the terms of trade between 1949 and 1954. Since 1954 the purchasing power of exports from all the Latin American countries (except Venezuela) has remained at a standstill, and in recent years has even tended to decline because of the deterioration of the terms of trade.

A comparison of the evolution of per capita income and the per capita purchasing power of exports, sheds some light on the external sector's failure to recover in relative terms. From 1928-29 to 1960, while the region's average per capita income rose by over 60 per cent, the per capita purchasing power of exports fell by over 50 per cent. Even in 1950-51, the most favourable post-war years for Latin American exports, their per capita purchasing power remained 23 per cent below the pre-Depression level.

This external bottleneck and the consequent fairly intensive import substitution process were reflected in a reduction in the coefficient of the Latin American economies.

The proportion of Latin America's total income absorbed by imports, which before the Depression was 28 per cent, has in recent years fallen to the relatively low level of 12 per cent, and as early as 1945-49 it was only in the region of 15 per cent.

In establishing the relation between these changes in the external sector and the various forms of import substitution, it is helpful to consider three separate periods that represent changes in the nature of this relation.

In the first period, extending from the Depression to the end of the Second World War, there were sharp reductions in the capacity to import, either over-all or

³ The data used in this section were obtained from the following sources: ECLA's *Economic Survey of Latin America 1949*; "Inflation and growth: a summary of experience in Latin America", in the *Economic Bulletin for Latin America*, vol. VII (1962), pp. 23, *et seq.*, and *Towards a dynamic development policy for Latin America* (E/CN.12/680).

specific, according to the individual situation. Consequently this was a period when restrictions in the external sector were "absolute", and called for vigorous import substitution in nearly all the Latin American countries, which was reflected in a substantial decline in the general import coefficient. This first phase was characterized above all by substitution in respect of non-durable final consumer goods. In some of the larger countries—including Brazil, as we shall see later—the process was extended to intermediate and capital goods as well.

In the second period, or the first decade after the war, the capacity to import was less restricted. The increased purchasing power of exports, though insufficient to restore the external sector to its former relative level, nevertheless permitted a considerable acceleration of the growth rate of the economy, through the expansion of domestic production combined with improved conditions in the export sector.

During this period, most of the Latin American countries reverted in practice to an externally rather than an internally oriented growth, based on a higher purchasing power of exports rather than on import substitution. In a few countries, however, such as Brazil, full advantage was taken of this relatively favourable situation in the external sector to expand the industrialization process. Thus import substitution made considerable progress, and some categories of durable consumer goods, were embarked upon, while production of other lines, including capital goods, continued.

Of the three decades under consideration this was the period of greatest growth for Latin America as a whole.⁴ Broadly speaking, it was made possible solely by a rapid increase in the purchasing power of exports, although this increase was slower than that of the product. (This means that the limitations deriving from the external sector were only of a relative nature.)

From 1954 on, external conditions were once more wholly restrictive (except in the petroleum producing countries) and the region's capacity to import again approached stagnation. Most of the countries were unable to maintain their rate of development by means of import substitution. Mexico and Brazil were practically the only countries able to proceed with industrial expansion at a rapid pace. Brazil even succeeded in increasing its growth rate through a number of circumstances dealt with in the section on Brazil below, but only at the cost of considerably increasing its balance-of-payments deficit.

B. THE VARIOUS MEANINGS GIVEN TO THE TERM "IMPORT SUBSTITUTION"

The term "import substitution" is often used in a simple and literal way to denote the reduction or elimination of certain imports and their replacement by domestic products. This interpretation obscures the real nature of the import substitution process described above, and even gives rise to a false notion of its dynamics.

In actual fact, the term "import substitution", which has been adopted to denote the new process of develop-

ment taking place in the under-developed countries, is unsatisfactory because it gives the impression that this process consists simply and solely in the removal or diminution of components of the import structure and their replacement by national products. It might be assumed by extension that the natural goal would be to eliminate imports altogether, in other words, to achieve self-sufficiency.⁵

Nothing, however, could be further from the truth. In the first place, the substitution process is not intended to reduce the over-all import quantum. Such a reduction, when it occurs, is the outcome of restrictions in the external sector rather than an aim in itself. It is these restrictions, whether absolute or relative, that make it necessary to produce in the country goods formerly imported. But the place of the ousted goods is taken by others, and as the process gathers momentum it generates an increase in derived demand for imports of intermediate and capital goods which may lead to greater dependence on the external sector than during the earlier stages of the substitution process.

Now that attention has been drawn to this possible misapprehension, the next step is a more detailed examination of the analytical problems that may arise when import substitution is understood in its restricted sense, that is, as an absolute or relative decrease in certain groups of products in the import structure. For this purpose, some examples are given below in which no such decrease occurs, or, if it does, its real nature is masked by the "apparent" substitution taking place.

The first example that might be considered is the extreme case where no change takes place in the composition of imports in absolute or relative terms, that is, neither the quantum nor the respective proportions of the principal commodity groups in the import structure undergo any modification. In such an event there would be no "apparent" or "visible" substitution, even though a vigorous and effective process of substitution might actually be taking place through an increase in domestic industry's contribution to an expanding domestic supply, which would be reflected in a reduction of the economy's import coefficient.

Another kind of problem is posed by the emergence of new products on the world market, which makes it difficult to undertake a comparative analysis of the pattern of imports in different periods. For instance, after the Second World War, new durable consumer goods made their appearance which bore no resemblance to the type of product imported previously. Consequently the development of a domestic industry producing such goods cannot be described, strictly speaking, as "substitution" in terms of pre-war imports. It is obviously a continuation of the general process described above; that is, it involves a realignment of the factors of production corresponding to a change in the pattern for the division of labour in the economy.

Another common occurrence in Latin America, particularly during the last decade, is a decline in imports of non-essential goods (certain kinds of durables and

⁵ Incidentally, this point of view has been advanced by some theoretists, such as Professor Rottenberg of Chicago, to emphasize the "dangers" inherent in a policy of import substitution. See Simon Rottenberg, *Reflexiones sobre la industrialización y el desarrollo económico*, Catholic University, Santiago, 1957.

⁴ See *The economic development of Latin America in the post-war period* (E/CN.12/659).

non-durables) as the result of discriminatory exchange policies aimed at reconciling the over-all level of imports with the real capacity to import.

The effect of these restrictions has been to stimulate domestic production. Obviously, in these circumstances the "real" substitution takes place after the "apparent" substitution discernible in the pattern of imports. But it may well be that some products are not actually replaced (because the market is not large enough, and/or the resources for producing them locally are lacking), and that their reduced share in the import structure is entirely attributable to import controls. Once these have eased, imports of such goods will automatically begin to climb again, possibly in company with those of other goods that cannot be produced locally on a competitive basis without the protection afforded by very high tariffs or other discriminatory measures.

Lastly, there is a point which, while obvious enough, is not always clearly grasped; "real" substitution is usually much less than the "apparent" substitution manifested in the reduction of certain imports. For instance, when import substitution takes place in end goods, there is a rise in demand for basic inputs and materials (not all necessarily produced locally), payments have to be made in respect of technical services and capital, and so forth. In reality, the production of a particular article replaces only part of the value added which used to be generated outside the economy. As previously indicated, the result may be an increase in the derived demand for imports that exceeds the saving in foreign exchange achieved by domestic production.

These brief remarks are not intended solely to indicate the risks inherent in a narrow interpretation of the term "import substitution" but to draw attention to some features of the process itself that are masked by that designation and sometimes even appear to be in conflict with it.

An analysis follows of the dynamics of what will continue to be called "the import substitution process", since this is the accepted term in the literature of economic development in Latin America, and in ECLA studies in particular. Nevertheless it should be understood that in the rest of this study this term will be used in a broad sense, to designate an internal development process that arises out of and takes its direction from external restrictions, and is evidenced mainly in the expansion and diversification of industrial production capacity.

C. THE DYNAMICS OF THE IMPORT SUBSTITUTION PROCESS

The object of this section is to make a highly theoretical analysis of the main features of the dynamics of what is meant by "import substitution", in the broad sense, and of the external and internal problems that arise as this process develops.

The dynamics of the process of development through import substitution may be regarded, to put it shortly, as a series of responses to the successive challenges presented by the restrictions in the external sector, as a result of which the economy gradually becomes less quantitatively dependent on external sources, and also effects a transformation in the nature of this depend-

ence. Throughout this process, which gives rise to a number of structural modifications in the economy, the basic contradiction between development requirements and the barrier represented by the capacity to import manifests itself in a series of different forms. The aim here is to show how some of the difficulties can be surmounted, but the conclusion reached is that external and internal problems tend to accumulate to the point where they act as a brake on the dynamism of the process.

1. Responses to the challenge of external disequilibrium

The beginning of the import substitution process is historically linked with the world Depression of the thirties, but for analytical purposes the starting-point chosen may be any lasting external disequilibrium that disrupts the balance between demand and production, as described above in dealing with the traditional export model.

Thus, during its first phase the aim is to satisfy current domestic demand which is not affected by the crisis in the export sector, and may or may not be maintained by government action.

There are three possible ways of expanding domestic supply, namely: better utilization of existing installed production capacity; the production of goods and services relatively independent of the external sector (e.g., government services); and the establishment of production units to replace former imports.

The first alternative comes to an end when the utilization of idle capacity existing in the economy reaches saturation point. Part of the second alternative is closely bound up with the third, and together they form the backbone of the inward-oriented development process known as import substitution.

Substitution usually begins in the easiest area, the production of finished consumer goods, partly because the technology is generally less complicated and less capital-intensive, but mainly because there is a larger untapped market for goods of this kind, either already existing, or brought into being as a result of the foreign trade policy adopted as a defensive measure.

There now follows an explanation of how the very expansion of internal production that characterizes the first phase imposes the need to press on with the development process.

In the first place, the establishment of industrial plants to produce internally final consumer goods formerly imported tends to enlarge the home market for such goods, not only because of the higher income that results from the investment process,⁶ but also because of the absence of internal restrictions of the kind imposed on equivalent imports. Secondly, domestic production, as we have seen, replaces only a part of the value added that was previously generated outside the economy. Consequently, derived demand for imports of raw materials and other inputs climbs rapidly and tends to outstrip the supply of foreign exchange.

This, then, is the first manifestation of one phase of the above-mentioned internal contradiction between

⁶ How far consumption expands in relation to the growth of income is essentially a question of the income-elasticity of the products in question.

the aim of the process, which is to expand the product (and, consequently, imports, at least to some extent), and the limitations of the capacity to import.

The response to this challenge is a fresh wave of substitutions, which means that some of the less essential imports have to be cut to release the foreign exchange required for the establishment and operation of new production units. Once more there is an increase in the product and in income, and the phenomenon described above then repeats itself, to a greater or lesser extent.

The mainspring of the import substitution process is the constant struggle to resolve these contradictions. Theoretically, the process could continue, though a rigorously selective use of foreign exchange, to that point in the international division of labour where utilization of existing domestic resources reaches its maximum.⁷

But in practice, as the substitution process solves the problems successively posed by the "external barrier", its progress becomes increasingly difficult and costly, not simply for internal reasons, such as market size, technology, etc., but also because, as a result of the limitations of the capacity to import, the import structure tends to become extremely rigid before the development process has acquired sufficient independence in terms of diversification of production.

The internal factors are analysed in the next section, which deals in more detail with the ways in which the dynamics of substitution affect the structure of imports, and what the implications are for the continuity of the process.

2. Changes in the structure of imports and the substitution mechanism

In the first phase of the substitution process the choice of new lines of production is based on the existing domestic demand for those items in the import structure that were easiest to manufacture, to wit, as already indicated, finished consumer goods.

This change in the orientation of domestic activity is reflected in the import structure by a reduction in the proportion of finished consumer goods and an increase in the proportion of intermediate products.

However, once the initial stage of industrialization is completed, the persistence of a structure of imports largely unchanged as regards the relative position of the three main groups (consumer goods, intermediate products and capital goods) may mean that substitution is being effected in several categories at the same time, although the emphasis on particular groups of products will vary according to the individual circumstances of each country and the stage of development it has attained.

Clearly, this does not mean that there is no alteration in the structure of imports; on the contrary, it will undergo changes within each group, at a speed determined by the pace of the substitution process. However, if the process is to continue, substitution activities must be so co-ordinated as to prevent any coincidence of

peaks of demand for imports that might give rise to a persistent internal bottleneck. The behaviour of the various historical series for imports could therefore be expected to appear in a graph as a series of dephased parabolas that represent the alternate appearance and disappearance of new products in the import structure.

The possibility of maintaining some degree of flexibility in the structure of imports, when the capacity of import is limited, depends on forging as soon as possible certain links in the chain of production which are of strategic importance for furthering the process. In other words, the possibility of proceeding with substitution depends upon the types of substitution already effected.

If, for example, substitution were confined to final consumer goods, the import schedule might be virtually limited to the imports needed to maintain current production, with no margin left for the entry of new products and, in particular, of the capital goods essential for the expansion of production capacity. To prevent this happening, it is imperative to embark promptly on substitution in respect of additional categories, especially of intermediate products and capital goods, before an excessively rigid import structure jeopardizes the very continuation of the process.

A notable advantage of substitution in respect of semi-processed materials and other intermediate products, from the standpoint of internal restrictions, is that imports needed to maintain existing output are relatively modest. There are two main reasons for this. The first is that some of the raw materials needed for the manufacture of such goods can be found within the country itself, and the proportion imported consists of raw or simply processed materials of a low unit value. The second is that their domestic market, unlike the internal market for consumer goods, does not tend to expand sharply merely because production within the country is undertaken. In all probability the main outlay of foreign exchange made once and for all will be on the purchase of the equipment needed for the installation of production units.

In this intermediate production sector, however, there is a considerable time lag between the decision to invest in a given branch of activity and entry into operation. Consequently, if import substitution is not envisaged until these products have already become important items in the import structure, almost certainly the rise in derived demand, combined with the time lag in the domestic supply, will result in a substantial increase in such imports which may exceed the country's foreign exchange resources.

What has been said above, especially in the preceding paragraph, about the production of intermediate goods also applies to some extent to certain types of capital goods. In addition the earliest possible start on their production has the strategic advantage of giving the domestic development process some degree of independence in relation to external restrictions.

To sum up, it can be asserted that, given the conditions of the import substitution model, it is practically impossible for the industrialization process to proceed from the base to the apex of the production pyramid, that is, to start with the more simply processed consumer goods and progress gradually until it includes

⁷ The lack of some of the natural resources required rules out even the academic possibility of progressing towards self-sufficiency.

capital goods. The substitution process might be regarded as a building of which every storey must be erected simultaneously, although the degree of concentration on each varies from one period to another.

It is plain that this undertaking gives rise to a series of problems of all kinds whose solution requires a conjunction of favourable conditions. Two such problems, one internal and the other external, merit special attention.

The first relates to the choice of product categories for substitution purposes. Clearly, in view of what has been said above, such a choice cannot be made in the light of a static conception either of the domestic market, or of the import structure at a given moment, or of both. In the first place, this means that not all investment can be induced only by existing demand, and secondly, it calls for a degree of foresight and ability to make autonomous decisions that can be looked for only from the State, or occasionally from the very few entrepreneurs of the "innovating" type.⁸

It will be difficult for what are termed the basic investments, for example, to be effected soon enough except through government decisions, either to undertake direct promotion of private enterprise or to stimulate and protect it by financial and other measures.

Of the market-induced investments themselves, many are in no way "spontaneous",⁹ since they are due largely to economic policy decisions, especially on foreign trade (exchange and tariff policy), which by causing changes (sometimes very abrupt) in relative prices, deliberately or otherwise determine changes in production capacity.

The second type of problem that arises with import substitution relates to the nature of the limitations of the external sector. Naturally, if there is an "absolute" stagnation of the capacity to import, it is hardly possible for industry to expand sufficiently to maintain a rapid growth rate. If the high rates of capital formation and the composition of investment needed for the rapid diversification and integration of the production mechanism are to be achieved, the limitations of the external sector must at worst be relative, i.e., there must be some import expansion, even if it takes place at a lower rate than the growth of the product. This can be achieved by an increase in the purchasing power of exports, with or without an autonomous or compensatory inflow of foreign capital.

As explained below in the section on Brazil, in recent times fairly satisfactory solutions have been found for the two problems referred to.

3. *Internal conditions affecting the process*

So far the development model of the Latin American economies has been examined from the angle of the growth of import substitution as regards the various

⁸ The term is used in the Schumpeterian sense. Thus, although it is recognized that in some of the Latin American economies there is a considerable body of able entrepreneurs capable of responding adequately to market stimuli or decisions of government economic policy, or both, the "innovating" and far-sighted type of entrepreneur, capable of seeking out the opportunities implicit in the opening-up of new lines of productive activity, may fairly be considered a rarity.

⁹ In the sense of resulting from the free play of market forces.

types of problems and responses arising from external limitations.

We now turn to those determining factors of the process that stem from certain internal limitations. There are three types of factors which eventually become serious problems, as economic development through import substitution proceeds, and which, moreover, are among the causes of the distortions to which the process has been subject in the Latin American countries in the past. These are the size and structure of the domestic markets, the nature of technological development and the constellation of productive resources. The three factors are, of course, closely interrelated in many respects, and only a thorough and systematic analysis of their interaction would make possible an over-all yet detailed view of the complex of economic development problems in the Latin American countries.

(a) The first step is to analyse the problems arising from the size and structure of the domestic market.

As already noted, the industrialization process in Latin America was on a strictly national scale, because of the situation with respect to the international division of labour which prevailed when the process began, and which has changed little since. To overcome this obstacle, the larger countries could rely on their domestic markets and superimpose on their old structure of primary production a modern secondary sector, by readapting and modernizing the services sector formerly directed towards export activities. However, the size and diversification of the new sectors was determined by the scale and composition of domestic demand and by its subsequent development. These, in turn, necessarily depend on the existing and future level and distribution of income.

As a result of the income distribution existing when import substitution began, the productive system had to be directed primarily to meeting the unsatisfied import demand of the high-income sectors. Although this encouraged industrial diversification, because of the varied demand of those sectors, it entailed obvious disadvantages in terms of cost structure and concentration of production.

Since the absolute size of the domestic market was relatively small to begin with,¹⁰ it is easy to imagine what it meant, from the standpoint of economic scales of production, to have to satisfy a whole range of requirements of goods and services, each one of which represented only a minute fraction of the total market.

This fact explains the inevitable trend towards concentration of economic activities, since it was inconceivable that a large number of enterprises could be established, on a competitive yet profitable basis, to fight for single-product markets that were so very small (with the exception of the markets for certain consumer goods).

Moreover, these problems tend to become more serious as the industrialization process extends to new and more

¹⁰ According to the ECLA study, *The Latin American Common Market* (E/CN.12/531, United Nations publication, Sales No.: 59.II.C.4), in 1959 the largest domestic market in Latin America had an annual purchasing power of some \$13 200 million, while the United States' motor vehicle market alone represented a purchasing power of approximately \$7 200 million. The absolute size in the thirties was obviously smaller, but the relative proportion must have been the same.

complex categories of production, since to embark on a certain type of metal-transforming industry or intermediate-goods industry, for example, requires a very large scale of production in relation to the size of the market.

Let us now see how the development of the industrialization process through import substitution gives rise to expansion of the domestic market itself, and what is the nature of this expansion.

Since import substitution was effected in categories of non-durable consumer goods, or in certain intermediate and capital goods for which the technology adopted required a low capital density, the pattern of investment, besides raising income, tended to increase employment sharply. Thus the market expanded in two ways: through the increase in the income of the higher brackets, and through incorporation of the workers employed in the new dynamic sectors, who naturally received higher wages, in the market for industrial and allied goods and services. However, as import substitution progresses, and especially when it embraces categories of durable consumer goods, the relative market growth becomes mainly vertical, that is, it is based on the purchasing power of the high-income sectors. This is due to two main factors: (1) the high capital density per unit of output precludes the large-scale absorption of labour; (2) the high unit value of the goods produced permits the entry into the consumer markets of only small sectors of the population.

Thus, although the establishment of new sectors of production makes the economy very dynamic in terms of income growth, and accelerates the import substitution process, it also introduces a serious disproportion between the production capacity of enterprises or sectors established on a scale in line with the requirements of the mass markets in the developed countries, on the one hand, and, on the other, the actual size of the market in an under-developed country.

(b) The next step is to consider the problems posed by the nature of modern technology in relation to the import substitution process.

One point often stressed is that the developing countries adopt techniques originally conceived for the "centre" economies, in line with their own constellations of resources, which are totally different from those of the developing countries. The need to import such techniques is due to the substitutive nature of the industrialization process in the latter countries and to the difficulty of working out new techniques better suited to their own individual circumstances.

The general drawbacks are also fairly well known, and may be summarized as follows: the amount of capital required in order to substitute domestic production for a given volume of output is very large, while the volume of employment generated is relatively small. This means in terms of growth that economic expansion entails a high level of capital accumulation coupled with insufficient absorption of the growing numbers who annually join the labour force. Attempts to improve the absorption rate must involve increasing the rate of investment, as long as the basic features of the technology adopted remain unchanged.

In addition to the foregoing general consideration of the problem of employment and of the growth rate

of the Latin American economies in very broad terms, it is useful to give some thought also to the obstacles that impede the continuation of the process when it becomes necessary to embark on substitution in types of production where the problems of scale and technological complexity become increasingly acute. Thus, the actual diversification and integration of the industrial production machinery tend to slow down in so far as the amount of capital needed combines with the size of the domestic market and with questions of technical know-how in impeding access to a series of sectors where even a small-scale production unit is too large for the real capacity of the economy.

The question arises whether, with the exception of those sectors with relatively specific technical patterns of production, it would not be possible to adopt a technology entailing lower capital density which would be more in line with the plentiful labour and land resources typical of the Latin American economies. This is a strictly academic question, however, at least as regards the adoption of such methods by private entrepreneurs within the dynamics of the import substitution model, particularly in the second period of development which took place after the war.

There now follows an explanation of why such a solution was not really feasible in the actual conditions under which industrialization took place in the Latin American countries.

In the first place, the tendency to use more capital and less manpower, in proportions differing widely from those dictated by the relative availability of the two factors, is due to the fact that there is no relation between the real (opportunity) costs of those factors and their monetary costs. Thus the minimum wage, for example, is virtually the same in all parts of a country, though the opportunity cost may be zero in areas where there is unemployment of unskilled manpower. On the other hand the price of capital goods, which are mostly imported, was generally reduced artificially by means of preferential exchange rates, in order to promote industrial development.

Furthermore, most import substitution activities were based on direct foreign investment (sometimes in association with national entrepreneurs) which involved the use of foreign techniques as well as foreign capital.

These factors, allied to the fact that some of the new ventures were in sectors where traditional enterprises were already established, were conducive to a rapid depreciation of the latter's equipment on grounds of obsolescence, and the total effect was to waste existing capital, impose a higher level of capitalization on the economy and deprive unskilled labour of employment.

(c) As regards the constellation of productive resources, its most notable feature is recognized to be the disproportion between the supply of the various factors: that is, natural resources and unskilled manpower are relatively abundant, while skilled manpower and capital are scarce. Consequently, the ideal macro-economic patterns of production which would be more in keeping with such supplies of resources are completely different from those resulting from the sum of the micro-economic patterns actually adopted by entrepreneurs in the import substitution process, on the basis of the existing system of relative prices.

This disproportion tends to widen as the process advances, in that increasing quantities of scarce factors are used (often wastefully) in the secondary sector, and the structure of the primary sector remains unaltered.¹¹ This situation is largely responsible for the serious structural unemployment of unskilled manpower and for the fact that potentially productive reserves are left idle.

Other problems arising in the Latin American economies relate to the fact that relative abundance of natural resources does not always mean that their composition is what is needed for the growth of the industrialization process. In early stages of this process the two basic requirements from the standpoint of natural resources are: (1) the existence of an agricultural sector that can expand, either through increasing the area under cultivation or through more intensive land use with increased productivity, thus making possible a fairly elastic food supply; and (2) the existence of raw materials to supply the traditional consumer goods industries.

In the ensuing phases, however, there must be, in addition to those resources, a series of sources of energy (petroleum, coal, water resources) and other mineral resources, and possibilities of exploiting them. But these resources are not evenly distributed throughout Latin America, and in nearly every country some of them, often essential items, are lacking, and this constitutes a serious obstacle in view of the restricted capacity to import.

D. CRITICISM OF LATIN AMERICA'S INDUSTRIALIZATION PROCESS

In analysing the difficulties deriving from the external sector that have conditioned the development process in the Latin American countries it is commonly recognized that they represent external factors on which the individual action of the country concerned can have very little effect. On the other hand, there is much support for the view that the reason why industrialization has generally led to insufficient absorption of labour, largely uncompetitive market structures and high production costs, in conjunction with the maintenance of an extremely uneven distribution of income, is the failure to adopt suitable economic policy measures.¹²

In this connexion, it is helpful to present some comments that bring into clearer perspective the analysis in the preceding section of the structural factors that govern the dynamics of the process. However, a prior general proviso is needed, pointing out that these governing factors can operate differently in different countries, and have a favourable or restrictive effect according to the actual conditions in each country, and the period at which the various stages of its development take place. The degree of freedom of action resulting from the possible permutations of external and internal

structural factors allows economic policy more or less room for manoeuvre, but once this policy has been adopted it, too, becomes a basic factor determining how far good use can be made of the economy's potential resources, or at least how far the obstacles to development can be overcome.

This should make it clear that the present analysis does not start with any arbitrarily deterministic interpretations; however, it must be recognized that within the basic parameters of the import substitution model the industrialization process could hardly have led to radically different results from those actually produced. There does not seem to be any point, moreover, in attempting to rewrite history by discussing the theoretical viability of some other development model based on such completely different parameters as a less unequal structure of ownership or distribution of the product, which would in the last analysis lead to entirely different general functions of production.

1. *The problem of high costs and lack of competition*

A commonly criticized fault of the industrialization process in Latin America is the high costs of the goods produced, a fact usually ascribed to lack of competition.

The problem of costs has in general been wrongly defined in terms of a comparison between domestic and foreign prices, whereas in practice, its main significance, from the domestic standpoint, relates to such macro-economic questions as the wastage of scarce resources and the inadequate utilization of the plentiful resources of the Latin American economies.¹³ If the problem of costs is looked at from this angle, it becomes necessary to make calculations on economicity, and to consider as such what is really a macro-economic relationship which takes account of social profit and expenditure.

However, when the problem is dealt with from the standpoint of foreign trade the micro-economic aspect must necessarily prevail, since in the final analysis the aim is to compare domestic prices with the prevailing world prices. Nevertheless, it would not be correct to assert that high domestic costs and the consequent difficulty in gaining a footing in the manufactured goods market are due to a lack of competition. Paradoxical as it may seem, it can reasonably be argued that, in view of the economies of scale that could be affected in certain sectors, a greater degree of concentration is needed, or even monopoly.¹⁴

In any case, even this theoretical possibility would not necessarily solve the problem of high relative costs. In this connexion it must not be forgotten that the substitution industries in the Latin American countries were established to replace imports that represented only an insignificant fraction of the production capacity of any exporting country. As an illustration of this point, even if the whole of the motor vehicle industry in

¹¹ This does not mean that any change in the structure of the primary sector would automatically modify that trend. If, for example, such a change entailed adopting a high-capital-density technology, the trend would very likely be accentuated, at least in the short run.

¹² By some these are termed simply "errors of government", and by others, in more technical or up-to-date terminology, "inadequate programming".

¹³ For an analysis of the problem of relative costs see the ECLA study *Theoretical and practical problems of economic growth* (E/CN.12/221).

¹⁴ Moreover it should be noted that the mere existence of a number of enterprises does not ensure competition. In the motor vehicle industry in Brazil, for example, seventeen enterprises have been established, but their joint action on the market is actually para-monopolistic in terms of prices, without any of the advantages of a monopoly in terms of costs.

Brazil were concentrated in a single enterprise in order to increase its economies of scale, the volume of its output would represent only a very small fraction of the output of a large-scale European enterprise such as Volkswagen.

The problem naturally is of a different character in many traditional industries, and also in some of the heavier and more complex industries where economies of scale are not the decisive cost factor. In these cases, where competitive prices can be achieved, the opportunities are likely to depend primarily on whether access to the markets of the "centre" countries is difficult or easy, on regional integration agreements, and on a variety of internal factors.

2. *The employment question*

As already noted, one of the distinguishing features of the Latin American economies is the chronic, and often increasing, structural unemployment of unskilled manpower. Moreover, it has also been shown that in the sector of vigorous growth *par excellence*, the secondary sector, the growth rate of employment has lagged behind that of the population in the last few years,¹⁵ owing not only to the population explosion but also to the high capital-intensity technology adopted in the modern branches of industry.

The only possibilities of counteracting this trend (within an import substitution model and in default of any radical changes in the primary sector) would consist essentially in the absorption of the population surplus either by the services sector or by public works programmes. This has been done to some extent, especially in the services sector where the spoils system and disguised unemployment are unmistakable signs of the lack of openings elsewhere. In the public works sector, however, the technology adopted has also, with a few rare exceptions, entailed a low level of manpower absorption. This is, of course, the result both of a technological dependence, and of the Government's inability, in the absence of adequate financing machinery, to allow itself to be guided by opportunity costs regardless of the monetary outlay involved.

There is no sign that this trend will undergo any spontaneous change in the future, and the problem might well be aggravated by the introduction of new and even more capital-intensive techniques, not only in the industrial sector, but more particularly in the services sector.¹⁶

The two possible ways of significantly improving the situation are to be found within the framework, not of the import substitution model, but of an over-all development model. Government investment in public works would have to be aimed in particular at providing em-

ployment, and in the primary sector, which employs the bulk of Latin American population, steps would have to be taken to carry out an agrarian reform that makes full use of the land and labour factors, thus increasing labour productivity through better land use instead of through the use of capital-intensive techniques.

3. *The problem of inadequate programming*

As stated in the introductory part of this section, many of the criticisms levelled at the industrialization process have ascribed its defects to a lack of rationality in economic policy decisions, or in other words, to a lack of programming. Some of those objections have now been brought within what appears to be their true frame of reference, namely, the development model applied in the past in the Latin American countries.

This does not mean, however, that careful planning could not or should not have been adopted, even within the basic framework of the import substitution model, while making full use, on a co-ordinated basis, of all the economic policy instruments at the Government's disposal. Such a procedure might at least have prevented any worsening of the strains of all kinds to which the Latin American economies were subjected, from severe inflationary pressures to rising sectoral and regional imbalances.

In fact, even viewed strictly from the angle of import substitution, programming is becoming more and more necessary as the process develops. The choice between investment alternatives becomes increasingly difficult and yet more decisive for further progress. Criteria such as that of giving priority to investments that are likely to save most foreign exchange (even though this may be only an empirical rule adopted during the first stage of the process) are becoming increasingly inappropriate and even dangerous. This is largely because the calculation is usually made in static terms, that is, without taking account of the subsequent growth of domestic demand for the product once substitution is begun, or the consequent increase in the demand for imports. The frequent result is an increase over a fairly long period (determined by the rapidity of the vertical integration of the substitution sector) in the expenditure of foreign exchange, the same scarce resource which the original aim was to save.

On the other hand, even were the calculation correctly made in terms of growth, from the standpoint of the continuity of the industrialization process there are several other factors to be considered, whose significance varies with the stage of the process. These factors include the existence of other equally scarce resources, and the essential links between the different parts of the productive process.

Thus it can safely be asserted that programming of public and private investment is essential, in particular in order to avoid discontinuity in the system's productive machinery and considerable waste of resources. In that respect the criticism of lack of co-ordination between the various economic policy measures adopted by the Latin American countries is valid, as regards both the instruments used, and the compatibility of over-all and sectoral aims. Nevertheless, it is again stressed that although such defects could have been avoided by means

¹⁵ In 1938-48 the annual growth rate of Latin America's industrial product was 5.8 per cent, and that of industrial employment 3.6 per cent. In 1953-58, on the other hand, whereas the annual growth rate of the product was 6.2 per cent, that of employment dropped to 1.6 per cent. See *An agricultural policy to expedite the economic development of Latin America* (E/CN.12/592).

¹⁶ The introduction of modern electronic computers on a wide scale in large public and private companies is by no means a remote possibility and, although from the isolated viewpoint of the enterprise concerned it represents a considerable increase in efficiency, it is clearly not the ideal solution from the standpoint of opportunity costs.

of programming, the basic problems referred to previously would have remained largely unaffected as long as the essential parameters of the substitution model were maintained.

To sum up, the dynamic growth characterizing that type of development could not be expected to bring about unaided a change in the macro-economic functions of production that would be conducive to national integration, with absorption of the manpower surplus and a better income distribution at the personal, sectoral and regional levels.

II. THE CASE OF BRAZIL

A. INTRODUCTION

In the last century the Brazilian economy was of the traditional primary commodity exporting type, like that of most Latin American countries, and Brazil, in common with those countries, formed part of the periphery dependent on the dominant industrialized countries at the centre of the system, and thus the pace of its development, externally oriented as it was, was determined by the growth of demand for its exports in the major economies.

In addition, as its exports consisted mainly of one or two products, Brazil's economy was a "reflex" economy, in the full sense of the term, in that it was not only affected by any crisis in the economies on which it depended, but was also extremely vulnerable to fluctuations in world prices of its few export products.

Every country with this traditional exporting kind of economy entered a state of economic crisis after the Depression of the thirties.

The long period that then ensued before there was a world recovery, followed by the Second World War, forced the Brazilian economy to turn in upon itself and develop new productive activities based on sectors of internal demand formerly supplied by imports. The pressure of a violent contraction in the capacity to import thus set off an import substitution process that has continued to the present time and has led to a level of industrial diversification, and to growth rates, that are substantially higher than those in most other Latin American countries.

In fact Brazil's position compares favourably with that of most other countries in the region, especially as regards the domestic factors obtaining at the beginning of the process, and the external factors in the post-war period.

At the time of the Depression the country already had a substantial domestic market, and an industrial structure that, although still at an early stage of development, was already fairly diversified. This was due to the nature of the export sector, which had a powerful diffusive effect in the economy of the region in which it was situated.¹⁷ Thus, within the framework of the primary commodity exporting model, a vigorous process

¹⁷ For an economic analysis of the conditions attendant on the establishment of the new development model, see Celso Furtado, *Formação Econômica Brasileira*.

Seemingly, therefore, unless those aims are deliberately pursued, the process may well accentuate still further the basic structural duality of the Latin American economies, or in other words, it may widen the existing gap between the relatively developed "capitalist sector" and the extremely under-developed "subsistence sector". This would not only prevent the former from becoming the motor force of the system as a whole, but in all probability would eventually put a brake on its ability to accelerate its own growth.

of urbanization took place in conjunction with the building up of an infrastructure of basic services and the development of a series of "traditional" industries, such as food, beverages, furniture, clothing, etc. Even the metallurgical industry was originally established a fairly long time ago, though on an artisan basis.

Accordingly it is clear that the defensive measures against external imbalance that were adopted by the Brazilian Government, and led, in practice, to the maintenance of the level of internal demand, were able to evoke a favourable initial response from existing under-utilized capacity. The persistence of the external bottleneck for a long period, in conjunction with the defence of the income level of the groups connected with the export sector, provided a constant incentive to diversify domestic import substitution lines that reflected the structure of demand in those groups.

Expansion and structural changes in production were accompanied by a markedly entrepreneurial response on the part of most of the coffee growers, who also embarked on industrial activities. This changeover is only one of the two aspects of another favourable element in the development of Brazilian industry, which up to a point is peculiar to Brazil, as far as the Latin American countries are concerned. This is the geographical overlapping of the most dynamic productive sectors in both development models. This overlapping, initially due to the relative abundance of external economies in the area lying between Rio de Janeiro and São Paulo, transformed the Centro-Sul region into an area with a high concentration of economic activity, through a cumulative process which greatly facilitated the growth of import substitution, although it led to a sharp increase in regional imbalances.

When the war ended Brazil again found itself in a relatively favourable position, this time as regards limitations on the external sector. Whereas Latin American countries that had adopted similar development models (for example Chile and Argentina), found themselves with a capacity to import that had not returned to pre-Depression levels, Brazil was able to attain and even surpass its former levels because exports expanded vigorously, especially in terms of purchasing power, as a result of the rise in world coffee prices that lasted until 1953-54.

After that date, external conditions became unfavourable both for Brazil and for the region as a whole.

However, the development process had already been given sufficient impetus to continue, and import substitution permitted industrial development not only to continue, but even to increase its pace. This was due partly to the entrepreneurial ability of the private sector and partly to the Government's economic policy, which was strongly slanted towards the dynamic component of the model.

Private entrepreneurs showed their industrial grasp by taking advantage of the years that were most favourable to the external sector (1951-52) to import machinery on a large scale and invest in a wide range of domestic activities. These investments, some with long maturity periods, were of considerable importance for the development of the following period, not only as sources of additional income and employment, but more especially, from the standpoint of the expansion and diversification of productive capacity, as a series of beach-heads to form the jumping-off point for future stages of industrialization.

The Government's economic policy followed two main lines of action, both directed almost entirely towards maintaining the past pattern of the industrialization process, from the standpoint both of its industrial structure and of its geographical concentration. The first was foreign trade policy, especially exchange control, which although applied through a number of different instruments (from quantitative controls to multiple rates of exchange), maintained until recently an effective discrimination between imports and gave preferential treatment to capital goods and certain strategic inputs, in addition to using the so-called "exchange profits" (the difference between the Government's *agio* and the preferential rate of exchange paid to exporters when they sell their foreign currency) as a parafiscal instrument for obtaining funds to finance certain operations in the public sector.

The second main line of action was investment policy, which, after the phase of pioneer enterprises such as Volta Redonda and Petrobrás, went on to the systematic elimination of the main bottlenecks in the infrastructure sectors, and the financing and orienting of other basic investments through a government financing agency, the Banco Nacional do Desenvolvimento Econômico (BNDE). This policy was translated into a programme of targets which represented the first attempt at planning on a national scale, and met with a certain amount of success even though it was carried out in sectoral terms and had all the defects inherent in the lack of an over-all and integrated view of the economy.

Thus although recent development has undoubtedly been accompanied by serious inflationary pressure, an increase in external disequilibrium and regional imbalances, it is equally true that Brazil is one of the few Latin American countries that has been able to maintain a high growth rate in recent years, and in which import substitution has progressed to an advanced level of national integration.

Broadly speaking, the development of import substitution in Brazil was determined by the behaviour of the group of factors described in the theoretical section of this paper. Moreover, in most cases Brazil was used as the point of reference in painting the general picture,

although care was taken to leave out of account any element peculiar to Brazil.

In the second part of this paper, the aim is to descend from the theoretical level and study in greater detail some aspects of the process that appear quantifiable. The statistical data available permit a more objective analysis only of the external factors involved and of the broad internal aggregates, and a somewhat more tentative analysis of their correlations with changes in the industrial structure. Unfortunately it was not possible to obtain data permitting any more specific analysis than that already made above of the other internal factors indicated as influencing the substitution process, and their implications as regards employment, costs and income distribution.¹⁸

B. REACTION TO THE EXTERNAL BOTTLENECK

The aim of this section is not only to show that Brazil's recent economic development was essentially induced by restrictions on the external sector, but also to sketch in broad outline the main stages of this development, with particular emphasis on the post-war period.

The first point dealt with is the main trends of the external restrictions from the standpoint both of the evolution of Brazil's capacity to import and of the balance-of-payments deficit.

There is not always a close correlation between these two aspects of the problem, since although stagnation of the capacity to import in a developing country will in fact produce a structural trend towards a balance-of-payments deficit, such a deficit may also be caused by other internal or external factors, whose effect may be intensified or mitigated by the economic policy adopted, especially with regard to questions of exchange.

In the second part of the section some indices are given with a view to drawing a picture of the Brazilian economy's reaction to the external bottleneck, and a brief analysis is subsequently made of the principal stages of the import substitution process in relation to the main economic policy measures adopted, especially as regards foreign trade.

1. *Features of Brazil's external bottleneck*

From the standpoint of the capacity to import, the restrictions that affected Brazil during the Depression and the Second World War were similar to those applied in other Latin American countries, and represented a reduction of about 50 per cent in the quantum of imports.

In the post-war period, however, limitations on the external sector were considerably less in Brazil than in the other countries of the region, such as Chile and Argentina. In fact, an examination of the data on the purchasing power of the three countries' exports shows that from 1945 on the situation in Brazil was more satisfactory, in both total and per capita terms.

¹⁸ The basic statistics available are those on foreign trade, national income and industrial production. National accounts were published only from 1948 up to 1961, and this period was accordingly chosen for analysis.

ARGENTINA, BRAZIL AND CHILE: PURCHASING POWER OF EXPORTS, 1928-29 TO 1959

(1955 = 100)

Years	Total			Per capita		
	Brazil	Argentina	Chile	Brazil	Argentina	Chile
1928-29	78	242	123	140	405	195
1932	44	148	23	73	228	35
1940	42	112	64	60	151	85
1945	70	118	75	88	147	92
1950-51	117	139	81	130	102	89
1955	100	100	100	100	100	100
1959	104	136	103	94	126	94

SOURCES: Data from the *Economic Survey of Latin America 1949* (United Nations Publication, Sales No.: 51.II.G.1, E/CN.12/164/Rev.1) and from the *Economic Bulletin for Latin America*, vol. V, No. 2, dealt with in greater detail in the (unpublished) study *Inflation and growth: a summary of experience in Latin America* (E/CN.12/563).

Brazil was one of the few Latin American countries that succeeded in regaining its capacity to import in absolute terms in the immediate post-war period, and during the subsequent period of improvements in its terms of trade, which lasted until 1954, was consequently able to raise its capacity to import to a much higher level than that of the other Latin American countries.¹⁹

The increase in the purchasing power of Brazilian exports was so marked that in the most favourable years it even made possible an appreciable recovery in per capita terms, to a level very close to that prevailing in the pre-war period.

From 1954 on, however, conditions in the external sector in Brazil, as in other Latin American countries, took a turn for the worse. With the fall in coffee prices and the lack of any compensatory increase in the volume of coffee exports, the capacity to import tended to decline and the over-all quantum of imports was maintained only at the cost of considerable external financing.

If the external situation described above is compared with the annual balance-of-payments figures (see table 1), there is no obvious correlation, for the reasons already explained. Thus, although it was the deficit on current account that became a more regular feature

and tended to increase in the final years of the period, the balance of payments throughout the period showed a generally negative trend, and, strangely enough, the disequilibrium registered in 1951-52, when there was a marked increase in the purchasing power of exports, was relatively greater.

The latter phenomenon was clearly due to the sharp increase in imports (especially of capital goods) purchased as a precautionary measure in view of the expectations arising from the outbreak of war in Korea, an increase which far exceeded the expansion in the capacity to import resulting from the improvement in the terms of trade. The trend towards a deficit had, in fact, already manifested itself, although less markedly, as early as 1947.

The euphoric atmosphere of the post-war period led to the rapid exhaustion of the foreign currency accumulated during the Second World War, and from 1948 onwards the pressure on imports made it necessary to resort to exchange controls.

Despite this general trend towards a deficit in nearly all the post-war years, the nature of the deficit was essentially at the beginning and end of the period. At the beginning the imbalance was principally due to circumstantial factors of the type already indicated, since the situation of the external sector was relatively favourable. During the second stage, however, the imbalance had already assumed a fundamentally structural character.

¹⁹ Save for a few exceptions like Venezuela which, for obvious reasons, did not find their capacity to import severely restricted.

Table 1
BRAZIL: BALANCE OF PAYMENTS, 1947-61
(Millions of dollars)

Year	Goods and services			Donations	Balance on current account	Non-compensatory capital	Errors and omissions	Balances of payments before compensation	Deferred import payments	Compensatory financing					Total
	Merchandise	Services	Total							Balance-of-payments loans ^a	Assets (increase —)	Liabilities	Official monetary gold (increase —)	Various	
1947	130	-276	-146	-24	-170	50	-43	-182	82	61	-136	166		10	182
1948	278	-135	-37	-7	-44	-9	29	-24	34	-20	30	-21	37	-56	24
1949	153	-271	-118	-3	-121	-35	82	-74	28	38	-32	41	-1	—	74
1950	425	-319	106	-2	104	-29	-23	52	-103	—	31	24	-1	-3	-52
1951	67	-535	-468	-2	-470	56	123	-291	30	28	82	156	-1	-4	291
1952	-286	-421	-707	-2	-709	120	-26	-615	541	-28	28	75	-1	—	615
1953	423	-392	31	-14	17	97	-98	16	-563	486	41	21	-1	—	-16
1954	150	-380	-230	-5	-235	22	10	-203	-46	200	-10	60	-1	—	203
1955	320	-344	-24	-10	-34	39	12	17	-8	61	-11	-58	-1	—	-17
1956	437	-419	18	-11	7	201	-14	194	—	-28	-182	17	-1	—	-194
1957	107	-394	-286	-13	-299	290	-171	-180	—	37	161	-18	—	—	180
1958	64	-326	-262	-4	-266	202	-189	-253	—	105	31	28	-1	—	253
1959	72	-373	-301	-10	-311	182	-25	-154	—	-21	26	150	-1	—	154
1960 ^b	-24	-470	-494	-15	-509	53	26	-430	—	58	-26	358	49	—	430
1961 ^b	111	-359	-248	7	-241	270	27	56	-68	309	-180	-119	2	—	-56

SOURCE: SUMOC, Economic Department (Balance-of-Payments Division).

^a Includes loans from the International Monetary Fund, the Export-Import Bank, the Federal Reserve Bank, private banks, etc.

^b Preliminary data.

For example, a study of the average data for the first and second five-year periods shows that there was a sharp change in the structure of the balance of payments, which to some extent reflected the above-mentioned deterioration in Brazil's external sector. The change in question was the substantial reduction in the contribution of exports to foreign exchange earnings and the considerable increase in capital flows (see table 2). This means that during the first period development was based on the growth of the export sector, whereas in the second period the lack of growth in that sector had to be offset by a substantial inflow of autonomous compensatory foreign capital.

It is clear from the foregoing that Brazil's external bottleneck became very much worse from every standpoint.

As a result of the decline in exports from 1954 on, and the accompanying increase in the external debt, the margin for the purchase of imports was progressively reduced. If imports of absolutely essential intermediate goods are added to the financial payments made in the last years of the period, it can be seen that the balance available for imports of other goods and services had

already been reduced in 1959 to less than 30 per cent of total export earnings (see table 3). It was therefore only possible to maintain the over-all quantum of imports at the expense of the net inflow of capital.

Table 2

BRAZIL: BALANCE OF PAYMENTS, RECEIPTS AND EXPENDITURES

Type of receipts or expenditure	1948-52		1956-60	
	Millions of dollars	Percentage	Millions of dollars	Percentage
Total receipts	1 477	100.0	2 001	100.0
Exports (f.o.b.)	1 366	92.5	1 334	66.7
Services	61	4.1	170	8.5
Donations	3	0.2	14	0.7
Capital	47	3.2	483	24.1
Total expenditure	1 704	100.0	2 091	100.0
Imports (f.o.b.)	1 238	72.6	1 203	57.5
Services	380	22.3	546	26.1
Donations	6	0.4	24	1.1
Capital	80	4.7	318	15.3

SOURCE: As for table 1.

Table 3

BRAZIL: EXPORT RECEIPTS AND THEIR UTILIZATION, 1948-59

(Millions of dollars at current prices)

Year	Exports	Financial payments								
		"Fixed imports"					Amortization			Balances available (1) - (5) - (9)
		Fuels	Wheat	Newsprint	Total	Public and private loans for specific plans	Balance-of-payments loans	Interest	Total	
		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
	(1)									(10)
1948	1 172.7	138.9	62.0	11.1	212.0	41	20	28	89	871.7
1949	1 089.3	129.9	104.9	8.2	242.9	28	79	24	131	715.4
1950	1 346.6	148.5	109.6	10.1	268.0	85	—	29	114	964.6
1951	1 757.4	234.6	130.8	25.1	390.5	27	—	22	49	1 317.9
1952	1 408.8	265.8	131.2	30.9	427.9	35	28	26	89	891.9
1953	1 539.1	244.5	80.2	22.1	346.8	48	—	47	95	1 097.3
1954	1 561.8	266.4	125.8	28.5	420.7	71	65	65	201	940.1
1955	1 423.2	273.4	142.1	30.0	445.5	87	59	48	194	783.7
1956	1 482.0	294.1	108.6	35.3	438.0	119	97	69	285	759.0
1957	1 391.6	281.5	104.2	45.2	430.9	166	77	73	316	644.7
1958	1 243.0	307.3	111.8	35.6	454.7	259	58	57	374	414.3
1959	1 282.0	281.2	131.5	32.4	445.1	297	80	89	466	370.9

SOURCES: For imports and exports, ECLA; for financial transactions, SUMOC.

Table 4

BRAZIL: OVER-ALL IMPORT COEFFICIENTS, 1948-61

(Thousand million cruzeiros at 1955 prices)

Year	Imports of goods and services	Gross domestic product	Supply of domestic goods and services	Over-all import coefficient (percentage)		Year	Imports of goods and services	Gross domestic product	Supply of domestic goods and services	Over-all coefficient (percentage)	
1948	47.3	473.1	440.4	10.0	10.7	1955	56.3	691.7	686.9	8.1	8.2
1949	48.4	500.1	477.0	9.7	10.1	1956	54.2	704.8	693.0	7.7	7.8
1950	56.8	525.0	519.5	10.8	10.9	1957	63.3	753.3	755.5	8.4	8.4
1951	88.0	552.0	573.4	15.9	15.3	1958	62.2	803.1	806.4	7.7	7.7
1952	84.7	582.4	612.1	14.5	13.8	1959	68.2	861.9	858.6	7.9	7.9
1953	54.4	601.1	594.4	9.1	9.2	1960	68.3	916.5	912.7	7.5	7.5
1954	72.2	646.0	665.7	11.2	10.8	1961	67.9	937.1	976.8	6.9	7.0

SOURCE: Basic data supplied by the Fundação Getulio Vargas (FGV) and ECLA.

2. Import substitution as a reaction to the external bottleneck

The slowing down of the growth of the export sector, especially after the Depression, led to an effort to reorient economic activity. This effort consisted mainly in replacing imports by domestic production that was safeguarded by the reserved market ensured through exchange and tariff protection.

Import substitution was concentrated principally in industrial activities and opened the way to broader investment opportunities and thus to a stable or even swifter rate of economic growth for long periods.

A comparison of the evolution of the gross domestic product and of industrial production, and of the evolution of the quantum of imports in general and of imports of industrial products, shows how effectively the

effort in question was directed towards the manufacturing industries.

On the other hand, a study of the total import coefficients for the main macro-economic aggregates (see tables 5 and 6) shows how low the share of the external sector in the Brazilian economy became in quantitative terms. The import coefficient declined appreciably throughout the period, in relation both to the gross domestic product and to the gross domestic supply of goods and services (at 1955 prices), and by 1961 was about 7 per cent.

The share of imported goods in total consumption is negligible, and is relatively modest even in capital formation itself if the years 1951-52 (which for reasons already explained were exceptional) are excluded. In 1960 imported machinery accounted for less than 20 per cent of the over-all gross fixed investment for the economy.

Table 5

BRAZIL: IMPORTS, TOTAL CONSUMPTION, TOTAL GROSS FIXED INVESTMENT AND AGGREGATE IMPORT COEFFICIENTS, 1948-61
(Thousands of millions of 1955 cruzeiros)

Year	Imports of goods				Total consumption	Total gross fixed investment	Import coefficient (percentage)			
	Total consumer goods	Final consumer goods	Total investment goods	Total capital goods			(1)	(2)	(3)	(4)
	(1)	(2)	(3)	(4)			(5)	(5)	(6)	(6)
1948	23.3	11.4	23.1	21.0	345.2	97.1	6.8	3.3	23.8	21.6
1949	24.0	10.4	23.7	20.1	395.5	92.0	6.1	2.6	25.7	21.8
1950	28.3	10.1	27.5	23.7	451.8	78.1	6.3	2.2	35.3	30.3
1951	41.4	18.8	45.3	40.5	460.6	96.9	9.0	4.1	46.7	41.8
1952	36.1	14.7	47.7	43.8	479.9	103.4	7.5	3.1	46.1	42.4
1953	28.6	7.2	24.8	19.7	497.4	93.0	5.7	1.4	26.7	21.2
1954	37.1	8.3	33.8	24.7	528.1	112.0	7.0	1.6	30.1	22.1
1955	33.3	6.7	21.6	17.3	574.2	99.2	5.8	1.2	21.8	17.4
1956	33.0	6.7	19.7	16.2	582.3	97.2	5.7	1.2	20.3	16.7
1957	31.4	6.6	30.3	26.4	622.4	108.8	5.0	1.1	27.9	24.3
1958	31.7	5.1	29.2	26.8	681.6	107.9	4.7	0.7	27.1	24.8
1959	32.9	5.8	34.2	32.1	707.9	118.8	4.7	0.8	28.8	27.0
1960	37.4	6.6	29.5	25.8	751.8	135.7	5.0	0.9	21.7	19.0
1961	37.4		29.0							

SOURCE: Basic data supplied by the Fundação Getulio Vargas (FGV) and ECLA.

Table 6

BRAZIL: BREAKDOWN OF IMPORTS BY MAJOR CATEGORIES
(Absolute values in millions of cruzeiros at 1948 prices; base for quantum indices: 1929 = 100)

Major category	1929			1931			1937-38			1948		
	Values	Quantum indices	Percentage of total	Values	Quantum indices	Percentage of total	Values	Quantum indices	Percentage of total	Values	Quantum indices	Percentage of total
Consumer goods	3 204	100	18.7	966	30	12.3	1 835	57	13.3	3 877	121	21.3
Durable	1 277	100	7.5	147	12	1.9	861	67	6.2	1 964	154	10.8
Non-durable	1 927	100	11.2	819	43	10.4	974	51	7.1	1 913	99	10.5
Fuels and lubricants	1 443	100	8.4	940	65	11.9	1 355	94	9.8	2 616	181	14.4
Raw materials and intermediate products	7 909	100	46.2	5 076	64	64.4	7 366	93	53.2	6 402	81	35.2
Metal	1 814	100	10.6	516	28	6.5	1 303	72	9.4	1 087	60	6.0
Non-metal	6 095	100	35.6	4 560	75	57.9	6 063	100	43.8	5 315	87	29.2
Capital goods	4 564	100	26.7	894	20	11.4	3 281	72	23.7	5 277	166	29.1
Sample total	17 121	100	100.0	7 876	46	100.0	13 837	81	100.0	18 172	106	100.0

SOURCES: Brazilian foreign trade yearbooks. Values calculated on the basis of the ECLA sample.

Although the external sector's contribution to the economy is small in quantitative terms, its qualitative importance should not be underestimated. The maintenance of high investment rates, and, what is even more important, an investment structure that permitted a considerable degree of expansion and diversification of Brazil's industrial inventory, were possible only because imports of capital goods kept at much the same level without any marked decline throughout the period. This import coefficient was a key factor in the expansion of productive capacity, which would otherwise have been limited to the expansion permitted by the existing margin of the relatively small domestic capital goods industry.

Let us now consider the main stages of the Brazilian process of import substitution, but only in terms of their more salient features, since the analysis of structural changes will be undertaken in greater detail in subsequent sections.

In the period following the Depression there was a rapid recovery in domestic activity, as a result of the Government's economic policy of protection against the external bottleneck. In the years preceding the Second World War the expansion of domestic industry was largely due to the more intensive use of installed capacity, which paved the way for substitution of a range of light consumer goods that had previously been imported. A similar expansion must have taken place in the food industry, in the production of some building materials, and in certain types of agricultural machinery, of which imports had fallen off sharply, as the following section shows.

During the Second World War the Government decided, in view of external supply problems, and despite the difficulties created by those problems, to enter the steel sector by starting a pioneer plant at Volta Redonda, whose entry into operation in 1946 represented the first large-scale operation of heavy industry in Latin America.

Generally speaking the post-war period was characterized by continuing expansion and structural changes in Brazil's industry, which are reviewed in section D of this study. For the moment it will suffice to consider the three main stages of the development process in this period.

The first stage corresponded to the immediate post-war period, from 1945 to 1947, and represented an improvement in the situation of the external sector accompanied by a return to pre-Depression levels on the part of the capacity to import. Consequently the growth of the economy during those years was directed less towards import substitution than to expansion of the export sector. The contribution of exports to the domestic product rose considerably, in 1946 reaching a level close to that of the pre-war period.²⁰

During the second stage (1948 to 1954), despite a continued increase in the capacity to import (after 1949 due mainly to higher international prices for coffee), the improvement was not sufficient, even in the most favourable years, to restore the per capita levels prevailing in 1929. Since there was a considerable increase in national income during this period, it is clear why the import liberalization policy followed in the

post-war period (at a fixed rate of exchange) laid constant pressure on the balance of payments. Consequently, once the exchange reserves accumulated abroad during the war were exhausted, the first deficits began to appear, in 1948, and the country started to enforce a system of exchange control.

This control was based, however, on the maintenance of the existing rate of exchange and on quantitative import controls that discriminated sharply against non-essential consumer goods while keeping the cost of imports of intermediate and capital goods relatively low. The natural result was a considerable impetus to the establishment of domestic import substitution industries for the manufacture of these consumer goods, especially durable goods, which up to then had not been produced in Brazil, and which came to enjoy a twofold exchange protection, in terms both of a reserved market and of operating costs. This was essentially the stage when the industries producing electrical household appliances and other durable consumer goods were established.

The increase in derived demand for imports due to this unintegrated expansion, in conjunction with the Korean war, resulted in a sharp increase in the balance-of-payments deficit, which took the form of an accumulation of deferred import payments. In 1953 an exchange reform was undertaken, in order to remedy this situation, whereby direct control of imports was replaced by a system of auctioning foreign currency, under which imports were divided into five categories according to how essential they were and how far they could be produced domestically. This system, by raising the average "real" rate of exchange, not only made it possible to keep down the volume of imports to the level of the capacity to import for that year, but also made domestic production relatively more attractive with respect to a range of basic industrial products and raw materials whose import prices in local currency rose considerably because they became subject to payment of increasingly large exchange agios.

Thus 1954 may be regarded as the end of the second stage of internal development, when relatively rapid (although disorganized) industrial development coincided with an increase in the purchasing power of exports. It should be noted that in 1954 the Government made large investments in the petroleum sector, which had a considerable influence on development in the succeeding period.

The years 1955 and 1956 may be regarded as a period of transition from both the political and economic standpoints, and 1956 was, in fact, the only year when there was a decline in the per capita product.

The period from 1956 to 1961 represents the third stage of post-war development. It has two outstanding features: an increase in the direct and indirect participation of the Government in basic investment, and an inflow of foreign private and public capital to finance a substantial proportion of investment in certain sectors.

The Government's action was combined with a programme of sectoral targets which endowed industrial expansion with some degree of rationality. Part of the inflow of public capital was autonomous, for the purpose of financing specific projects, but a larger part was compensatory, for the purpose of covering balance-of-payments deficits. The inflow of foreign private ca-

²⁰ See BNDE/ECLA Joint Group, *Análises e Projeções do Desenvolvimento Econômico no Brasil*.

pital was directed essentially towards the metal-transforming industry, in the form of direct investment stimulated by the preferential treatment granted under SUMOC Order No. 113.

This period saw the installation of some dynamic industries, such as motor-vehicle production, shipbuilding, the manufacture of heavy electrical equipment, and other machinery-producing industries, and the expansion of such basic industries as the steel, petroleum, metallurgical (ferrous metals), pulp and paper, and heavy chemical industries.

This considerable expansion and diversification of industry was stimulated by means of various incentives and subsidies, in particular the exchange and tariff privileges introduced by Act No. 3,244 of 1957.

In this way there was a considerable extension of the import substitution process in Brazil, leading to higher development rates for this than for preceding periods. However, it is important not to overlook the fact that this process was accompanied by a marked increase in inflationary pressure and regional imbalances.

The increase in the share of the public sector in national expenditure,²¹ without a satisfactory system of financing, combined with the aggravation in the external bottleneck, stimulated inflationary pressures, with serious repercussions on the economy as a whole.

The vast concentration of industry in the region of the country that was already the most developed, although explicable and even defensible as a "normal" process of polarization, nevertheless increased the regional imbalance, with all that that implies in the way of economic, political and social problems.

Thus, although Brazil admittedly succeeded in developing at a period when most of the Latin American countries were stagnating, the social cost of this process was relatively high (although obviously not as high as the cost of stagnation).

Moreover, the period of dynamic growth in import substitution appears to be coming to an end, and a fourth period of development in terms of the same model seems unlikely. The stage through which Brazil is going at present indicates the need for a transition to a new model of economic and social development. However, no more than a few brief observations will be made on this aspect in the final section of the present study.

C. CHANGES IN THE STRUCTURE OF IMPORTS

The purpose of the present section is to show how far the import substitution process which has been taking place in Brazil during the last two or three decades has been reflected in perceptible changes in the structure of the import schedule, and to analyse the behaviour and composition of the different categories of imports.

The main emphasis will be laid on the period 1948-61, the thirties being taken into consideration only for reference purposes.

The analysis will be carried out at several levels of aggregation, ranging from the whole of the sample elected by ECLA in 1955—which in that year repre-

sented over 90 per cent of the schedule—to various types of groupings of representative products, and thence, in some instances, to a detailed break-down.

In this study of import structure attention will be focused chiefly on quantitative fluctuations in the different categories of goods and changes in their relative participation in the sample.

Although the import substitution process may be taken, in a more general sense, as one of expansion and diversification of domestic production—especially manufacturing—in face of the limitations of the capacity to import, the present chapter will be confined to indicating the categories of goods and the periods of time in which substitution in the strict sense of the term has taken place. It has already been shown that substitution proper may be defined as a reduction in absolute and/or relative terms, in certain products or groups of products in the import schedule.

If the substitution process is to be successful and is to permit internal economic expansion, given a capacity to import which increases slowly, or sometimes remains stationary or even declines, it is essential that some import categories be reduced, eliminated or prevented from increasing at the same rate as the over-all quantum, in order that others may be maintained or expanded and new products, indispensable for continued development, may be incorporated.

It is with this absolute or relative reduction of participation in the sample, termed here "visible" substitution, that the ensuing analysis is concerned.

It has also been shown that the substitution effort of an economy or of an industrial sector cannot be measured only in terms of the decrease in imports. In the case of aggregates, in particular, but even where single products are concerned, substitution—i.e., replacement of imports by domestic production—may be taking place without any apparent contraction of purchases abroad. This necessarily implies that the expansion of consumption is being more than proportionally covered by domestic production, or, in other words, that the percentage of total supply represented by imports is dwindling.

An analysis of this type, permitting a more thorough evaluation of the economy's import substitution effort, will be presented in section D, on the basis of a comparative study of imports and domestic production. It must be repeated that the present section is concerned only with showing how far the structure of imports alters as substitution proceeds, and identifying some of the branches of activity in which "visible" substitution has taken place.

1. *Period of reference*

Although the period selected for detailed analysis of the changes in the composition and behaviour of imports is that extending from 1948 to 1961, certain years in the period 1929-38 have been singled out for reference purposes, with a view to establishing a relation between the state of affairs in the thirties, before and after the world Depression, and the post-war situation.

The study of this period of reference will be based on the data presented in table 6. The years selected were as follows: 1929 (prior to the Depression); 1931 (when the Depression sank to its lowest ebb); 1937-38

²¹ See data in *Plano Trienal de Desenvolvimento Econômico e Social do Brasil 1963-65*, table V.

(years of recovery); and 1948 (opening year of the later period).

The indices and percentages are calculated on the basis of data in terms of cruzeiros at 1948 prices, to facilitate the comparison between one period and another. This comparability, however, is very rough indeed, since the data for the period under analysis are given in dollars at constant 1955 prices, and the sample itself, selected in that year, is much less representative in relation to the thirties.

(a) *Quantitative variations*

Consideration of the sample data reveals that the over-all level of imports attained in 1929 was not regained during the next ten years, and that only in 1948 was it slightly exceeded. Since the sample represented only 78 per cent of total imports in 1929, 81 per cent in 1937-38 and 87 per cent in 1948, the trend during the decade was probably less clearly in the direction of a recovery of the 1929 import level than table 6 indicates. In the year 1931, imports contracted by more than 50 per cent in relation to their 1929 level, although, as was to be expected, purchases of fuels and of raw materials and intermediate products were the least affected, falling only by 35 and 36 per cent, respectively, whereas the respective reductions of consumer goods and equipment amounted to 70 and 80 per cent.

Despite the fact that 1937 and 1938 were years of recovery, and as far as imports were concerned, the most propitious of the decade, the sample quantum was still 19 per cent less than in 1929, and only after the Second World War did the capacity to import revert to its pre-Depression levels.

The behaviour of the major categories during the period will now be reviewed.

Imports of *consumer goods* contracted very sharply at the time of the Depression, especially *durable consumer goods*, whose behaviour pattern shows a high degree of elasticity in relation to fluctuations in the over-all quantum, since consumption of these commodities can be restricted more easily than that of other items in the import schedule. This group of products, while recovering more rapidly than non-durable consumer goods, failed to regain their 1929 levels in the course of the thirties. By the end of the next decade, however, imports of durable consumer goods had reached very high figures, surpassed only by fuels, and exceeding the average for the sample by 50 per cent.

Imports of *non-durable consumer goods* not only remained throughout the whole of the thirties at an average level 50 per cent lower than that registered in 1929, but even in 1948 had difficulty in climbing back to pre-Depression levels. A process of substitution of domestic production for imports therefore took place, which was particularly intensive in the case of foods of animal origin, beverages and some of the simpler manufactured goods.²²

The phenomenon of import substitution is not apparent in the durable consumer goods sector as a whole.

²² According to the sample data, imports of such products (in terms of cruzeiros at constant 1948 prices) fell by some 70 per cent between 1929 and 1938, and even in 1948 still stood about 50 per cent below their pre-Depression level.

On the contrary, the relative importance of such products in the schedule increased.

This, however, was attributable not so much to the non-existence of substitution in respect of the categories of goods included in the 1929 schedule, as to the appearance of new products on the world market. Thus, in the sample selected, which pertains to the year 1955, a large proportion of the durable consumer goods group consists of electrical appliances for household use, which did not exist in the thirties.²³

In addition, the years immediately following the war were characterized in Brazil by a certain buoyancy of the exchange rate, deriving from the enforced accumulation of foreign exchange reserves during the war. Thus, imports of durable consumer goods reached very high levels (these were so-called years of "squandering of foreign exchange"), in response to a demand that had been held in check during the war years. Even in 1951 and 1952, when imports of these and other types of goods rose to their peak, the relative participation of durable consumer goods in the schedule was lower than in 1948.

The *fuels and lubricants* group was the one that showed most rigidly in relation to fluctuations in the over-all level of purchases abroad. Not only was the decrease in the quantum of imports relatively smaller in this category than in any of the others during the years of the Depression, but also, once the period of recession was over, the level of imports in this group showed a virtual recovery, keeping pace with the growth of economic activity. In 1948 the volume registered was double the 1938 figure, a development which simultaneously reflected the economic expansion of the post-war period and the impossibility of effecting import substitution owing to the non-existence of a petroleum industry.

The group of imports ranking second as regards the difficulty of restricting them and the degree of recovery attained is that of *raw materials and intermediate products*, whose level was only slightly lower in 1937 than in 1959, for reasons similar to those adduced in the case of the preceding group. As far as the import substitution process is concerned, however, the situation is very different. In this group substitution was effected in respect of several items of importance—it might even be said, of key importance—for subsequent economic development, and was so intensive that by 1948, whereas the other groups and the over-all level of imports had already reached higher figures than in 1929, imports of raw materials and intermediate goods had contracted by 20 per cent. The process is particularly "visible" in the case of metal products, imports of which declined by 40 per cent between 1929 and 1948. In addition, it dates farther back than in respect of other items in the group; in the case of non-metallic raw materials, substitution is observable only from 1938 onwards, imports of such goods having reacted in the

²³ A phenomenon of much the same kind, although less intensive in degree, must have occurred in the case of equipment. But where this was concerned it was more a matter of changes in type and quality than of the actual disappearance of some lines of production and appearance of new items. Furthermore, this problem is one of major importance, and accounts for the great difficulty of constructing series in terms of constant prices and strictly comparable on a year-by-year basis, over so long a period.

post-Depression period even more sharply than external purchases of fuels. This behaviour is natural enough, since the group of products in question comprises the basic inputs for the industries producing non-durable final consumer goods, in which the substitution effort must have been accentuated during the period when the bottleneck in the external sector was most serious. On the other hand, even in the years of economic recovery, imports of semi-manufactured metal products registered a decline, thanks to the expansion of the domestic steel-making industry, which had been growing up ever since the beginning of the century, although large-scale production was initiated only when the Volta Redonda plant entered operation during the Second World War. An analysis of import schedules shows that in terms of cruzeiros at constant prices imports of steel products dropped by 50 per cent between 1929 and 1948.

The same period witnessed a decrease in external purchases of non-metallic raw materials in relation to the following items: skins and hides, textile fibres and yarns, paper products (other than newsprint), rubber manufactures, sheet glass and cement.

Capital goods displayed a fair degree of elasticity in relation to fluctuations in the over-all level of imports. Next to durable consumer goods, this was the group that underwent the most severe restrictions as a result of the Depression. Its recovery during the rest of the decade also followed the same course as that of the former category. In 1948, however, notwithstanding the fact that the level of imports of capital goods was above the over-all average, their expansion by no means equalled that of external purchases of durable consumer goods. Although the group as a whole shows no sign of a substitution process like that registered for intermediate products, a beginning may be said to have been made in respect of some ranges of goods. Thus, between 1929 and 1948 there was a considerable decrease in imports of agricultural equipment (especially tools) and of railway material, corresponding to domestic production in those branches of industry.

(b) *Variations in the composition of the sample*

The structure of imports altered perceptibly between 1929 and 1948, as industrialization progressed.

It should be noted to begin with that the relatively modest participation of consumer goods in the 1929 structure²⁴ suggests that the process had already been initiated prior to that date, even within the traditional export model. Industrialization had in fact been taking place in Brazil, although only in its incipient phases, since the beginning of the century, and gained stronger momentum during the period of the First World War. By the time of the world Depression, the traditional industries had already attained a certain level of development, so that the introduction of the import substitution process via non-durable consumer goods was facilitated not only by the smaller markets and less capital-intensive technology which these required, but also, above all, by the possibility of more efficient utilization of the existing production capacity.

²⁴ The participation in question is underestimated in relation to total imports, since the sample was selected in 1955. But this does not seem enough to invalidate the argument developed below.

Nevertheless, the progress achieved in replacing this range of imported goods by domestic production did not suffice to bring external purchases down to a level compatible with a capacity to import as limited as Brazil's.

With the over-all reduction of imports, raw materials and intermediate products had come to represent in the thirties more than 50 per cent of current purchases abroad. It thus became a matter of urgency to embark upon the substitution process, especially in respect of building materials.

The corresponding effort started after the Depression was intensified at the time of the Second World War, and by 1948, three years after the cessation of hostilities, and with exports still at their 1929 level, the structure of the schedule showed substantial changes.

The share of intermediate products had decreased from 46 to 35 per cent, while at the same time, as was seen above, these imports had also declined in absolute terms. The reduction of their relative importance made it possible not only to offset the absolute and relative expansion of fuel imports deriving from economic development, but also to increase the participation of consumer goods and of the capital goods which were indispensable for the continuation of the development process.

Attention must once more be drawn to the fact that the proportional increment of consumer goods was attributable entirely to durable consumer goods, for the reasons already noted. Non-durable consumer goods constituted the other group in which "visible" substitution took place, and their share in the schedule was therefore smaller in 1948 than it had been in 1929.

Briefly, then, it may be concluded that during the post-Depression period and up to the end of the Second World War, the substitution process in respect of non-durable consumer goods was carried practically as far as possible, and some efforts of key importance were made in connexion with the group comprising raw materials and more particularly, building materials. The increase in the proportion of the schedule represented by non-durable consumer goods, resulting from the appearance of new products, from the demand held in check during the war, and the post-war buoyancy of the exchange rate, opened up new paths for substitution in the subsequent period, which Brazilian industry was to pursue for about ten years.

The substitution process itself, however, was bound to entail new imports of raw materials and equipment. These additional requirements quickly exhausted the country's limited resources to import—which from 1954 onwards actually declined—and compelled the substitution process to make a fresh and more vigorous start in the branches of production comprising intermediate goods. How this process developed, and what changes ensued in the quantum and composition of commodity imports, are the questions to be analysed in the following sections.

2. *Behaviour pattern of import schedule aggregates in 1948-61*

To begin with, the same classification as for the period of reference will be adopted: consumer goods (durable and non-durable); fuels and lubricants, raw

materials and intermediate products (metal and non-metallic); and capital goods.

The data relating to this classification are assembled in tables 7-A, 8-A and 9-A. The consumer goods column includes, in addition to machinery, appliances and instruments for consumer use, and all the corresponding parts of accessories. The capital goods column comprises, apart from finished machinery and equipment, the requisite imported parts for domestic assembly industries.

Since the parts, accessories and spare parts covered by these two columns afford very important indications of the substitution processes deriving from the progressive integration of Brazil's metal-transforming industries,

it was decided to group them separately in a second classification under the general heading of spare parts.

In this new classification, which can be seen in tables 7-B, 8-B and 9-B, the group thus formed is presented in conjunction with raw materials and semi-manufactured goods under the broad designation of intermediate products. In this last major category are included all the basic inputs used in the economy, with the exception of fuels and lubricants, which were grouped separately, and include crude petroleum, coal, and petroleum and coal products.

The durable consumer goods and equipment shown in the new classification are finished goods, or, rather, are intended for final use.

The tables referred to above will now be analysed.

Table 7-A

BRAZIL: QUANTUM OF IMPORTS, BY MAJOR CATEGORIES, 1948-61
(Thousands of dollars at 1955 prices)

Year	Consumer goods			Fuels and lubricants	Raw materials and intermediate products			Capital goods	Sample total
	Durable	Non-durable	Sub-total		Metal	Non-metal	Sub-total		
1948	97 990	74 589	172 579	129 729	68 716	234 036	302 752	392 085	997 245
1949	84 114	76 052	160 166	136 903	96 168	254 462	350 690	375 377	1 023 076
1950	76 214	83 999	160 213	164 463	107 800	322 390	430 190	443 299	1 198 165
1951	172 878	122 874	295 752	212 299	152 076	439 418	591 494	757 160	1 856 705
1952	107 248	120 943	228 191	234 738	129 696	374 330	504 026	820 252	1 787 207
1953	24 274	84 504	108 778	231 335	112 268	328 170	440 438	368 672	1 149 223
1954	38 761	97 975	136 736	278 408	219 481	425 531	645 012	462 570	1 522 726
1955	19 952	90 131	110 083	271 107	111 246	371 575	482 821	323 959	1 187 970
1956	19 503	90 231	109 734	281 633	99 236	349 251	448 487	302 747	1 335 683
1957	25 372	84 964	110 336	254 433	124 561	351 450	476 011	494 903	1 309 566
1958	27 380	61 248	88 628	284 573	94 372	340 365	434 737	501 628	1 440 314
1959	29 120	61 236	90 356	279 089	98 364	372 664	471 028	599 841	1 441 759
1960	20 594	80 052	100 646	319 590	119 055	420 432	599 487	482 036	1 420 757
1961	16 707	87 944	104 651	322 834	134 651	409 114	543 765	449 507	

SOURCE: ECLA sample data.

Table 7-B

BRAZIL: QUANTUM OF IMPORTS, BY MAJOR CATEGORIES, 1948-61
(Thousands of dollars at 1955 prices)

Year	Final consumer goods			Fuels and lubricants	Intermediate products				Equipment	Sample total
	Durable	Non durable	Sub-total		Metal	Non-metal	Spare parts	Sub-total		
1948	91 522	74 589	166 111	129 829	68 716	234 036	93 455	396 207	305 098	997 245
1949	74 700	76 052	150 752	136 903	36 168	254 462	61 739	412 369	323 052	1 023 076
1950	62 693	83 999	146 692	164 463	107 800	322 390	76 202	506 392	380 618	1 198 165
1951	150 476	122 874	273 350	212 299	152 076	439 418	147 929	739 423	631 633	1 856 705
1952	92 415	120 943	213 358	234 738	129 696	374 330	118 972	617 998	721 113	1 787 207
1953	19 813	84 504	104 317	231 335	112 268	328 170	16 510	456 948	356 623	1 149 223
1954	21 785	97 975	119 760	278 408	219 481	425 531	68 626	713 638	410 920	1 522 726
1955	7 078	90 131	97 209	271 107	111 246	371 575	44 827	527 648	292 006	1 187 970
1956	7 105	90 231	97 336	281 633	99 236	349 251	58 175	506 662	256 969	1 142 601
1957	11 469	84 964	96 433	254 433	124 561	351 450	106 967	582 978	401 839	1 335 683
1958	12 873	61 248	74 121	284 573	94 372	340 365	161 692	596 429	354 443	1 309 566
1959	23 063	61 236	84 299	279 089	98 364	372 664	193 416	664 444	412 482	1 440 314
1960	15 029	80 028	95 081	319 590	119 055	420 432	98 769	638 254	388 832	1 441 759
1961	8 388	87 944	96 332	322 834	134 651	409 114	27 404	571 169	430 422	1 420 757

SOURCE: ECLA sample data.

Table 8-A

BRAZIL: IMPORT QUANTUM INDICES, BY MAJOR CATEGORIES, 1948-61
(1948 = 100)

Year	Consumer goods			Fuels and lubricants	Raw materials and intermediate product			Capital goods	Sample total
	Durable	Non-durable	Sub-total		Metal	Non-metal	Sub-total		
1948	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1949	85.8	102.0	92.8	105.4	140.0	108.7	115.8	95.7	102.6
1950	77.8	112.6	92.8	126.7	156.9	137.8	142.1	113.1	120.1
1951	176.4	164.7	171.4	163.5	221.3	187.8	195.5	193.1	186.2
1952	109.5	162.1	132.2	180.8	188.7	159.9	166.5	209.2	179.2
1953	24.8	113.3	63.0	178.2	163.4	140.2	145.5	94.0	115.2
1954	39.6	131.4	79.2	214.4	319.4	181.8	213.1	118.0	152.7
1955	20.4	120.8	63.8	208.8	161.9	158.8	159.5	82.6	119.1
1956	19.9	121.0	63.6	216.9	144.4	149.2	148.1	77.2	114.6
1957	25.9	115.3	51.3	196.0	181.3	150.2	157.2	126.2	134.0
1958	27.9	82.0	51.4	219.2	137.3	145.4	143.6	127.9	131.3
1959	29.7	82.1	52.4	215.0	143.1	159.2	155.6	153.0	144.4
1960	21.0	107.3	58.3	246.2	173.3	179.6	178.2	122.9	144.6
1961	17.0	117.9	60.6	248.7	196.0	174.8	179.6	114.6	142.5

SOURCE: ECLA sample (data in dollars at constant prices).

Table 8-B

BRAZIL: IMPORT QUANTUM INDICES, BY MAJOR CATEGORIES, 1948-61
(1948 = 100)

Year	Final consumer goods			Fuels and lubricants	Intermediate products				Equipment	Sample total
	Durable	Non-durable	Sub-total		Metal	Non-metal	Spare parts	Sub-total		
1948	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1949	81.6	102.0	90.8	105.4	140.0	108.7	66.1	104.1	105.9	102.6
1950	68.5	112.6	88.3	126.7	156.9	137.8	81.5	127.8	124.7	120.1
1951	164.4	164.7	164.6	163.5	221.3	187.8	158.3	186.6	207.0	186.2
1952	101.0	162.1	128.4	180.8	188.7	159.9	122.0	156.0	236.4	179.2
1953	21.7	113.3	62.8	178.2	163.4	140.2	17.7	115.3	116.9	115.2
1954	23.8	131.4	72.1	214.4	319.4	181.8	73.4	180.1	134.7	152.7
1955	7.7	120.8	58.5	208.8	161.9	158.8	48.0	133.2	95.7	119.1
1956	7.8	121.0	58.6	216.9	144.4	149.2	62.3	127.9	84.2	114.6
1957	12.5	115.3	58.6	196.0	181.3	150.2	114.5	147.1	131.7	134.0
1958	14.5	82.0	44.6	219.2	137.3	145.4	173.0	150.5	116.2	131.3
1959	25.2	82.1	50.7	215.0	143.1	159.2	207.0	167.7	135.2	144.4
1960	16.4	107.3	57.2	246.2	173.3	179.6	105.7	161.1	127.4	144.6
1961	9.2	117.9	58.0	248.7	196.0	174.8	29.3	144.2	141.1	142.5

SOURCE: ECLA sample (data in dollars at constant prices).

Table 9-A

BRAZIL: PERCENTAGE BREAKDOWN OF IMPORTS, BY MAJOR CATEGORIES, 1948-61

Year	Consumer goods			Fuels and lubricants	Raw materials and intermediate products			Capital goods	Sample total
	Durable	Non-durable	Sub-total		Metal	Non-metal	Sub-total		
1948	9.8	7.5	17.3	13.0	6.9	23.5	30.4	39.3	100.0
1949	8.2	7.4	15.6	13.4	9.4	24.9	34.3	36.7	100.0
1950	6.4	7.0	13.4	13.7	9.0	26.9	35.9	37.0	100.0
1951	9.3	6.6	15.9	11.4	8.2	23.7	31.9	40.8	100.0
1952	6.0	6.8	12.8	13.1	7.3	20.9	28.2	45.9	100.0
1953	2.1	7.4	9.5	20.1	9.8	28.6	38.4	32.0	100.0
1954	2.6	6.4	9.0	18.3	14.4	27.9	42.3	30.4	100.0
1955	1.7	7.6	9.3	22.8	9.4	31.3	40.7	27.2	100.0
1956	1.7	7.9	9.6	24.6	8.7	30.6	39.3	26.5	100.0
1957	1.9	6.4	8.3	19.0	9.3	26.3	35.6	37.1	100.0
1958	2.1	4.7	6.8	21.7	7.2	26.0	33.2	38.3	100.0
1959	2.0	4.3	6.3	19.3	6.8	25.9	32.7	41.7	100.0
1960	1.4	5.6	7.0	22.2	8.3	29.1	37.4	33.4	100.0
1961	1.2	6.2	7.4	22.7	9.5	28.8	38.3	31.6	100.0

SOURCE: ECLA sample (data in dollars at constant prices).

Table 9-B

BRAZIL: PERCENTAGE BREAKDOWN OF IMPORTS, BY MAJOR CATEGORIES, 1948-61

Year	Final consumer goods			Fuels and lubricants	Intermediate products				Equipment	Sample total
	Durable	Non-durable	Sub-total		Metal	Non-metal	Spare parts	Sub-total		
1948	9.2	7.5	16.7	13.0	6.9	23.5	9.4	39.8	30.5	100.0
1949	7.3	7.4	14.7	13.4	9.4	24.9	6.0	40.3	31.6	100.0
1950	5.2	7.0	12.2	13.7	9.0	26.9	6.4	42.3	31.8	100.0
1951	8.1	6.6	14.7	11.4	8.2	23.7	8.0	39.9	34.0	100.0
1952	5.2	6.8	12.0	13.1	7.3	20.9	6.4	34.6	40.3	100.0
1953	1.7	7.4	9.1	20.1	9.8	28.6	1.4	39.8	31.0	100.0
1954	1.4	6.4	7.8	18.3	14.4	27.9	4.6	46.9	27.0	100.0
1955	0.6	7.6	8.2	22.8	9.4	31.3	3.7	44.4	24.6	100.0
1956	0.6	7.9	8.5	24.6	8.7	30.6	5.2	44.4	22.5	100.0
1957	0.9	6.4	7.3	19.0	9.3	26.3	8.0	43.6	30.1	100.0
1958	1.0	4.7	5.7	21.7	7.2	26.0	12.3	45.5	27.1	100.0
1959	1.6	4.3	5.9	19.3	6.8	25.9	13.4	46.1	28.7	100.0
1960	1.0	5.6	6.6	22.2	8.3	29.1	6.8	44.2	27.0	100.0
1961	0.6	6.2	6.8	22.7	9.5	28.8	1.9	40.2	30.3	100.0

SOURCE: ECLA sample (data in dollars at constant prices).

(a) Quantitative variations

The variations registered in the import quantum can be studied in table 8, and reveal that, in the period as a whole, the only major category in which "visible" substitution took place was the consumer goods group.

The substitution effort was strongest in the case of durable consumer goods, whose quantum dropped abruptly in the course of the period.

Non-durable consumer goods, however, also show signs of a substitution process, although on a much smaller scale, inasmuch as the quantum of such imports did not keep pace with the rise in the over-all import quantum, but remained at its 1948 level in the later years of the period under review.

In all the other groups increases in the quantum of imports were registered throughout the period. The most striking expansion was that of fuels and lubricants, whose quantum increased in the course of the period by 150 per cent.

The quantum indices for finished capital goods and intermediate products as a whole show exactly the same trend between the beginning and end of the period as the over-all import quantum, although with fluctuations of differing degrees of intensity.

Naturally enough, as was previously pointed out, capital goods displayed more elasticity than the other categories in reacting to the movements of the over-all quantum of imports. Thus, in 1951 and 1952, the years in which the latter reached its peak levels, the increase in external purchases of equipment was disproportionately great, and the quantum of such imports rose to more than double the 1948 figure. It was lower in 1955 and 1956, which were years when the over-all level declined, than it had been in 1948.

Significantly as this circumstance was reflected in the economy's rate of investment, it is explicable enough in view of the fact that new equipment was the easiest of all the schedule items to restrict, since imports of finished consumer goods had already been reduced to very low levels.

Raw materials and intermediate products showed a more rigid behaviour pattern in relation to changes in

the over-all level of imports, inasmuch as external purchases of these goods were indispensable for the maintenance of the existing level of economic activity, especially in industry. Thus, quantum fluctuations were less sharp in their case than in respect of aggregate imports, except in 1954, when mass purchases of metal products were effected.

It should also be noted that in 1954-60, which was a period of intensive industrialization, the quantum index of imports in the foregoing category remained at a higher level than that of total imports, whereas in the case of the equipment the reverse took place.

Among the intermediate products, the only items in respect of which "visible" substitution can be noted are the so-called "spare parts", which include parts and accessories required for the assembly of electrical appliances for household use, and motor vehicle parts. It was only from 1959 onwards, however, that the vertical integration of production in these two sectors made sufficient progress for any considerable decrease in imports to be registered.

(b) Variations in the composition of the sample

Variations in the percentage participation of the different groups of items in the sample can be evaluated in the light of table 9. At the beginning of the period, the structure of the schedule was roughly as follows:

Consumer goods	17 per cent
Fuels and lubricants	13 per cent
Intermediate products	40 per cent
Capital goods	30 per cent

The only substantial change to be noted by the end of the period is the decrease in the share of consumer goods and the corresponding increase in that of fuels and lubricants. The relative positions of intermediate products and capital goods remained the same.

The respective upward and downward trends of the first two groups are constant. This implies a serious problem where fuels are concerned. If the substitution effort in respect of these latter is not sufficient to reverse or at least to check the trend in question, it will not be long before the increment in their share in the import

schedule is achieved at the expense of intermediate products and equipment since the proportion corresponding to consumer goods, which is already extremely small, could hardly be reduced still further. To judge from the data for the last two years of the period, during which the share of consumer goods slightly increased, even the maintenance of so low a level is becoming a difficult matter.

The relation between the percentages represented by intermediate products and equipment fluctuated as already shown in the analysis of the quantum data.

It should be stressed, however, that throughout the whole period, and particularly in the last few years when the volume of imports was stationary, there was no increase in the proportion of the import schedule absorbed by intermediate products, despite the rapid expansion of industrial activity.

Obviously, this was only possible because the purpose of part of that industrial activity itself was to substitute domestic production for imports in the sectors corresponding to raw materials, intermediate products and spare parts. Although the substitution is "visible" only in the case of the last-named group, through a contraction of imports in absolute and relative terms, it will be seen later, in an analysis at a lower level of aggregation, that progress was in fact achieved in several other lines of intermediate goods. Indeed, it was by virtue of the substitution effort made in this field that a margin of about 30 per cent of the schedule could be earmarked for imports of equipment. This largely accounts for the country's having been able to maintain its rate of investment and, consequently, keep up its economic development process in recent years.

3. Analysis of the structure of imports by economic use and destination²⁵

In this section an attempt is made to classify the total imports shown in the sample on two different bases firstly, as end or intermediate products and secondly, according to whether they are intended for consumption or investment (see table 10).

These two classifications are then combined in such a way as to obtain four sub-groups showing at one and the same time the type of use and the final purpose for which the goods are intended (see table 11).

In the classification by end and intermediate products, the former comprise finished consumer goods, equipment and processed fuels—in short, all the goods regarded as for final use. Intermediate products cover raw and other materials (metal and non-metallic), spare parts and unprocessed fuels.

In the breakdown by goods for consumption and for investment, the products grouped in the latter category were finished equipment, spare parts for assembly of transport equipment, metal intermediate products and,

among non-metallic materials, only those for the building industry (cement, glass, etc.).

Consumer goods include all other non-metallic intermediate products and raw materials, finished consumer goods and spare parts for electric household appliances, and all fuels and lubricants.

This division is somewhat artificial, since in the case of intermediate products and fuels, it is impossible to distinguish *a priori* the proportions intended for consumption and for investment. The classification was established on precisely the same lines as that adopted in the two studies referred to above, allocating to the consumer goods category those items which are predominantly, even though indirectly, used in the production of final consumer goods, besides, of course, goods for direct consumption. The same criterion was adopted in relation to investment.

The first classification, by end and intermediate products, is also artificial, and betrays the same defects, perhaps in greater measure. The most serious classification problems arise in connexion with spare parts—some of which may be directly used for final consumption—and fuels, which it is difficult to break down by type of use.

Despite these shortcomings, the classification adopted seems useful for the purposes of the present section, the aim of which is to analyse over-all import schedule trends in the direction of greater or lesser rigidity, and the effects on the development process deriving therefrom, in so far as a loss of flexibility is reflected in a contraction of imports of capital goods.

To begin with, then, the first part of table 10, which relates to the breakdown of the sample by intermediate and end products, must be analysed.

As will be seen, the relative importance of end and intermediate products altered substantially during the first decade of the period under review; whereas in 1948 their respective shares were 60 and 40 per cent, in 1958 the position was reversed, the proportion of end products being 45 per cent as against 55 per cent of intermediate goods. This increase in the participation of intermediate products is consistent with the normal modification of the import schedule that accompanies an industrialization process in an underdeveloped country whose capacity to import does not increase rapidly.

The long-term prolongation of such a trend, however, would have adverse effects on the development process, which might lapse into stagnation.²⁶ Given the limitations of the capacity to import, the relative contraction in imports of end products would ultimately become a decrease in absolute terms, the rigidity of the import schedule would be steadily aggravated, and imports of capital goods, which are at once the most important and the most flexible group under the head of end products, would be restricted. This would not only retard the development process but would also increase the vulnerability of the economy in relation to the external sector, since the maintenance of existing industrial activity itself would remain strategically dependent upon mass imports of raw materials.

²⁶ See Part I of the present study, section 3, "The dynamics of the import substitution process".

²⁵ The purpose of the present analysis is to make this part of the study comparable with two similar studies carried out by ECLA in relation to the Latin American region, one of which was published in the *Economic Survey of Latin America 1956* and the other in *Algunas características del desarrollo industrial en el período 1950-60* (E/CN.12/602), March 1961. The methods of classification adopted in the present section and in these two studies are similar, although not exactly the same.

Table 10

BRAZIL: BREAKDOWN OF IMPORTS BY ECONOMIC USE AND DESTINATION, 1948-61
(Quantum in thousands of dollars at 1955 prices)

Year	Total	By type of use				By destination			
		Intermediate products		End products		For consumption		For investment	
		Quantum	Percentage of total	Quantum	Percentage of total	Quantum	Percentage of total	Quantum	Percentage of total
1948	997 245	396 207	39.7	601 038	60.3	520 673	52.2	476 482	47.8
1949	1 023 076	412 369	40.3	610 707	59.7	535 753	52.4	487 323	47.6
1950	1 198 165	506 633	42.3	691 532	57.7	631 246	52.7	566 919	47.3
1951	1 856 705	739 933	39.9	1 116 772	60.1	924 218	49.8	932 487	50.2
1952	1 787 207	618 387	34.6	1 168 820	65.4	806 103	45.1	981 104	54.9
1953	1 149 223	457 615	39.8	691 608	60.2	637 809	55.5	511 414	44.5
1954	1 522 726	716 772	47.1	805 954	52.9	827 814	54.4	694 912	45.6
1955	1 187 970	604 724	50.9	583 246	49.1	743 307	62.6	444 663	37.4
1956	1 142 601	613 930	53.7	528 671	46.3	737 214	64.5	405 387	35.5
1957	1 335 683	689 302	51.6	646 381	48.4	711 857	53.3	623 826	46.7
1958	1 309 566	720 444	55.0	589 122	45.0	708 098	54.1	601 468	45.9
1959	1 440 314	790 427	54.9	649 887	45.1	735 634	51.1	704 680	48.9
1960	1 441 759	762 961	52.9	678 798	47.1	835 129	57.9	606 630	42.1
1961	1 432 046	736 796	51.5	695 250	48.5	834 584	58.3	597 462	41.7

SOURCE: ECLA sample (data in dollars at constant prices).

Table 11

BRAZIL: GROSS-CLASSIFICATION OF IMPORTS BY ECONOMIC USE AND DESTINATION, 1948-61
(Quantum in thousands of dollars at 1955 prices)

Year	Intermediate products						End products						Over-all total
	Sub-total		For consumption		For investment		Sub-total		For consumption		For investment		
	Quantum	Percentage of total	Quantum	Percentage of total	Quantum	Percentage of total	Quantum	Percentage of total	Quantum	Percentage of total	Quantum	Percentage of total	
1948	396 207	39.7	224 823	22.5	171 384	17.2	601 038	60.3	295 940	29.7	305 098	30.6	997 245
1949	412 369	40.3	248 098	24.3	164 271	16.0	610 707	59.7	287 655	28.1	323 052	31.6	1 023 076
1950	506 633	42.3	320 332	26.7	186 301	15.6	691 532	57.7	310 914	25.9	380 618	31.8	1 198 165
1951	739 933	39.9	439 079	23.6	300 854	16.3	1 116 772	60.1	485 139	26.1	631 633	34.0	1 856 705
1952	618 387	34.6	358 396	20.1	259 991	14.5	1 168 820	65.4	447 707	25.1	721 113	40.3	1 787 207
1953	457 615	39.8	302 824	26.4	154 791	13.4	691 608	60.2	334 985	29.1	356 623	31.1	1 149 223
1954	716 772	47.1	432 780	28.4	283 992	18.7	805 954	52.9	395 034	25.9	410 920	27.0	1 522 726
1955	604 724	50.9	452 067	38.1	152 657	12.8	583 246	49.1	291 240	24.5	292 006	24.6	1 187 970
1956	613 930	53.7	465 512	40.7	148 418	13.0	528 671	46.3	271 702	23.8	256 969	22.5	1 142 601
1957	689 302	51.6	467 315	35.0	221 987	16.6	646 381	48.4	244 542	18.3	401 839	30.1	1 335 683
1958	720 444	55.0	473 419	36.2	247 025	18.8	589 122	45.0	234 679	17.9	354 443	27.1	1 309 566
1959	790 427	54.9	498 229	34.6	292 198	20.3	649 887	45.1	237 405	16.5	412 482	28.6	1 440 314
1960	762 961	52.9	545 163	37.8	217 798	15.1	678 798	47.1	289 966	20.1	388 832	27.0	1 441 759
1961	736 796	51.5	569 756	39.8	167 040	11.7	695 250	48.5	264 828	18.5	430 422	30.0	1 432 046

SOURCE: ECLA sample data.

It should be stressed that the situation in Brazil does not seem to have reached so serious a pitch. In the first place, the expansion of those imports of raw materials and intermediate products that cannot be restricted was not effected, in absolute terms, at the expense of end products. Broadly speaking, the import quantum of these latter remained constant throughout the period,²⁷ so that, given a 44-per-cent increment in the quantum of aggregate imports, that of intermediate goods was able to increase by more than 80 per cent. Thus, although on the basis of severe restrictions on external purchases of certain consumer goods, it was possible to maintain the share of imports of equipment.

²⁷ Excluding the steep upswings registered in 1951 and 1952, which were, as already shown, two exceptional years.

On the other hand, the rising trend in the relative importance of intermediate products seems to have been reversed from 1958 onwards. During the last three years of the period under discussion, the proportion corresponding to these goods declined, and by 1961 represented little more than 50 per cent of over-all imports. This reversal of the trend suggests that the substitution effort that had been taking place for a number of years in respect of some branches of intermediate products had been crowned with success, so that the substitution in question ultimately became apparent for the category as a whole. This result is all the more satisfactory if it is taken into account that the group includes certain commodities, such as crude oil, wheat and newsprint, in relation to which the substitution effort did not suffice to produce visible effects.

Hence it may be concluded that despite these and other difficulties, which will be discussed in fuller detail at a later stage, the composition of the schedule is less unfavourable in this respect than might be expected.

The second part of the table, showing the breakdown by economic destination, will now be analysed.

In the first three years of the series, the relative shares of imports for consumption and for investment remained constant, at a little over and a little under 50 per cent, respectively. During the fifties, variations in the relative weight of these two groups were especially noteworthy in the years when the level of total imports rose (1951-52) and fell (1955-56). As was to be expected, in the former case the change was favourable and in the latter prejudicial to imports for investment purposes. This greater elasticity characterizing the reaction of imports for investment to fluctuations in the over-all level is perfectly explicable, and has been observed in all the Latin American countries.

No major changes in the composition of the schedule took place in the other years of the decade.

As from 1959, in which year the structure of the schedule was relatively favourable to investment, the proportion of imports of consumer goods increased. The explanation may be found in phenomena of three different kinds: the stagnation of aggregate imports; the impossibility of controlling the expansion of imports of fuels (especially petroleum); and the replacement of some lines of imported capital goods by domestic production.

While the first of these factors is clearly evidenced by the data presented in table 10, the other two will be analysed only in the following sections.

In table 11 the classification by end and intermediate products is sub-divided by economic destination, according to whether goods are imported for consumption or for investment purposes.

Products for final consumption comprise durable and non-durable consumer goods (essentially manufactures ready for use) and processed fuels. The group as a whole shows visible substitution; its quantum followed a downward trend (although recovering slightly in the last two years under consideration) and its relative share declined from 30 per cent at the beginning to 18.5 per cent at the end of the period. In the sub-group formed by equipment (end products for investment purposes), although the quantum registers a gently rising trend and the proportion of the sample represented hovers around 30 per cent, considerable fluctuations are apparent. The sharpest are observable in the same periods as were noted above in connexion with the major category "Imports for investment purposes", and derive from the same causes.

Intermediate products for consumption show a marked increase both in their quantum and in their relative importance in the sample. They constitute, in fact, the only sub-group which, although with a few slight interruptions, kept up steady and increasing resistance to the import substitution process. This is not surprising if it is recalled that they include raw materials and materials at various stages of processing for the chemical industry, besides petroleum, wheat, and a number of other commodities which Brazil has found it impossible to produce on a satisfactory scale because of difficulties

relating to technology or to availability of natural resources.

Intermediate goods for investment comprise metal products, non-metallic building materials and spare parts for equipment. As can be seen both from the quantum data and from the distribution percentages, substitution efforts yielded some visible results.

Developments in this group will be analysed later, but it may be remarked in anticipation that the apparent slowing-up of the substitution process in this field, manifested in an expansion both of the quantum and of the proportion of imports of such goods between 1956 and 1959, is nothing but a phase in the economic expansion and diversification process itself. Indeed, the expansion in question is almost entirely attributable to purchases of spare parts for the motor vehicle industry that was installed in Brazil in 1955-56. Since 1959, the growth and progressive development of the domestic manufacture of motor-vehicle parts has once again reduced the quantum and percentage of imports in this category, the latter falling to the lowest level registered in the period.

With respect to the group as a whole, although its share in the schedule is already relatively small—under 12 per cent—some opportunities for continued substitution will be afforded by the prospective entry into operation of new steel-making units in the next few years, apart from the possibilities of expansion of the non-ferrous metal industries.

In short, from the analysis presented in this section—within the general lines on which it has been carried out—the following conclusions may be drawn.

The evolution of the structure of imports was definitely unfavourable only in the case of intermediate products for direct consumption, the proportion of which increased until by 1961 they absorbed about 40 per cent of the schedule. In compensation the problem of a standstill in total imports for investment purposes, which would be seriously detrimental to the development process, was successfully by-passed by means of substitution in the intermediate products group and the maintenance of imports of finished equipment.

It was the sub-group comprising final consumer goods that showed the most clearly-marked trend towards substitution. Even so, it still accounted for about 19 per cent of total imports in 1961, since it included processed fuels, in respect of which, despite an intensive domestic production effort, self-sufficiency was as yet a long way off.

Thus, given the basic difficulty of keeping up the development process in face of a slow-growing capacity to import, which actually remained stationary in the final years of the period, the problems arising in the past in connexion with the degree of rigidity of the import structure did not prove insuperable. On the contrary, the structure in question retained sufficient flexibility to leave a margin of about 30 per cent of total imports available for capital goods.

It is true that in the last two or three years of the period the very maintenance of the real capacity to import was achieved at the cost of more and more external borrowing, and the aforesaid margin of imports for investment purposes could be secured only by virtue

of a discriminatory exchange policy and a considerable inflow of foreign capital.

The prospects for continuing the substitution process in such unfavourable external conditions are not, therefore, very encouraging, and the maintenance of the existing over-all import coefficient would imply a substantial increase in the rigidity of the schedule, since the margin of imports susceptible of restriction, even if drastic controls are applied, is becoming steadily narrower.

The possibilities for intensive import substitution in respect of equipment, which would give the schedule more flexibility and the investment process greater independence, will be discussed in the last part of the study.

4. *More detailed analysis of the composition of the major aggregates*

In the two preceding sections, the trends followed by the most important aggregates in the import schedule were analysed in broad outline, in order to evaluate the principal changes in their structure deriving from the intensification of the import substitution process in 1948-61.

The aim of this section is to present an analysis designed to give a closer insight into this same structure and at the same time to serve as a means of identifying specific lines of production in which "visible" substitution may perhaps have been taking place. Obviously, substitution may fail to be apparent in the major groups as a whole, owing to the level of aggregation, and yet may have taken place on a considerable scale in relation to a number of minor sub-groups.

The classification adopted in sub-section 1 of section C is taken as a basis for a further breakdown, under the major heads shown in the tables appended to the present section.

(a) *Non-durable consumer goods*

As already shown, the volume of imports in this group as a whole did not keep pace with the rising trend of the over-all quantum, although obviously following its fluctuations, but with little elasticity. The average level of imports was exactly the same in the last four as in the first two years of the period. The share of this group in the sample hovered around 7 per cent until 1956, after which it dropped sharply, albeit showing a trend towards recovery in the last two years.

Table 12 will now be studied with a view to a more detailed breakdown of the structure of the group.

At the beginning of the period, the most important sub-division in this category was constituted by foodstuffs, which represented 55 per cent of the group. They comprised mainly temperate-zone commodities, the principal items being fruit from Argentina, olive oil, cod and some by-products of animal origin. Next in order of importance came beverages, medicaments and textile manufactures, with similar shares of about 11 per cent each, and, lastly, printed matter and miscellaneous manufactures, accounting for 5 and 7 per cent, respectively.

By the end of the period, foodstuffs were still in a privileged position, and had even gained in relative importance within the group. As regards the other items, special mention must be made of the increased significance of imports of medicaments and printed matter, which, although reaching their peak (in relative terms) in 1958, still represented about 20 and 8 per cent, respectively, of total imports of non-durable consumer goods in 1961.

In respect of textiles and miscellaneous manufactured goods, the substitution process has practically reached its limit, external purchases having been reduced to negligible levels. Imports of beverages, despite the advanced stage reached by the substitution process, showed a slightly rising trend in the last five years of the period. This coincided, as will be seen later, with the stagnation of the rate of production in the beverages industry during the last two or three years under review.²⁸

To sum up, among the groups of imports of non-durable consumer goods that are still of some significance, two have shown themselves to be virtually irreducible—temperate-zone foodstuffs and printed matter—despite the restrictive exchange measures applied in relation to the former, and the considerable expansion of Brazil's own publishing industry.

The only branch of imports in this group for which it seems possible that "real" substitution might still take place is that of medicaments, although even so a substantial reorganization and development effort on the part of the domestic pharmaceutical industry would be an indispensable prerequisite.

(b) *Durable consumer goods*

It has already been shown that in respect of this group as a whole an intensive substitution process took place, since its position in the schedule deteriorated abruptly not only in relative but also in absolute terms.

²⁸ Although domestically-produced beverages are not "perfect" substitutes for their imported counterparts, they are nevertheless substitutes in a sufficiently strict sense to warrant the correlation.

Table 12
 BRAZIL: IMPORTS OF NON-DURABLE CONSUMER GOODS, 1948-61
 (Quantum in thousands of dollars at 1955 prices)

Year	1. Total		(1.1) Foodstuffs		(1.2) Beverages		(1.3) Drugs and medicaments		(1.4) Textile manufactures		(1.5) Books, newspapers and periodicals		(1.6) Miscellaneous manufactured products	
	Quantum	Percentage of sample products	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total
1948	74 589	7.5	40 930	54.9	8 572	11.5	7 752	10.4	7 765	10.4	4 006	5.4	5 564	7.4
1949	76 052	7.4	44 779	58.9	3 027	4.0	12 681	16.7	8 547	11.2	4 323	5.7	1 695	3.5
1950	83 999	7.0	57 204	68.1	3 699	4.4	10 070	12.0	6 690	8.0	3 697	4.4	2 639	3.1
1951	122 874	6.6	78 113	63.6	7 750	6.3	23 458	19.1	4 566	3.7	5 706	4.6	3 281	2.7
1952	120 843	6.8	81 081	67.0	4 455	3.7	24 205	20.0	2 525	2.1	5 860	4.8	2 817	2.4
1953	84 504	7.4	59 006	69.8	2 473	2.9	12 891	15.3	1 865	2.2	7 333	8.7	937	1.1
1954	97 975	6.4	61 231	62.5	2 714	2.8	23 082	23.6	779	0.8	9 150	9.3	1 019	1.0
1955	90 131	7.6	64 009	71.0	1 188	1.3	14 218	15.8	246	0.3	9 640	10.7	830	0.9
1956	90 231	7.9	59 797	66.3	1 805	2.0	17 571	19.5	271	0.3	10 093	11.2	705	0.7
1957	84 964	6.4	60 237	70.9	1 834	2.2	12 840	15.1	391	0.5	8 995	10.6	667	0.7
1958	61 248	4.7	35 138	57.4	1 706	2.8	15 512	25.3	165	0.3	7 876	12.9	851	1.3
1959	61 236	4.3	41 101	67.1	1 769	2.9	9 842	16.1	476	0.8	7 226	11.8	823	1.3
1960	80 052	5.6	55 208	69.0	2 103	2.6	13 773	17.2	251	0.3	7 728	9.7	990	1.2
1961	87 944	6.1	59 206	67.3	1 667	1.9	18 222	20.7	273	0.3	7 403	8.4	1 173	1.4

SOURCE: ECLA sample data.

From an analysis of table 13, it can be seen that the substitution in question is "visible" in respect of the three sub-groups considered—vehicles and accessories,

electric household appliances, and miscellaneous manufactured goods—imports of all of which declined in absolute terms.

Table 13

BRAZIL: IMPORTS OF DURABLE CONSUMER GOODS, 1948-61
(Quantum in thousands of dollars at 1955 prices)

Year	Group total		Vehicles and accessories		Household appliances and accessories		Miscellaneous manufactured products	
	Quantum	Percentage of sample total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total
1948	97 990	9.8	56 240	57.4	26 362	26.9	15 388	15.7
1949	84 114	8.2	44 974	53.5	24 177	28.7	14 963	17.8
1950	76 214	6.4	35 335	46.4	23 832	31.3	17 047	22.3
1951	172 878	9.3	94 486	54.7	47 936	27.7	30 456	17.6
1952	107 248	6.0	63 796	59.5	22 692	21.2	20 760	19.3
1953	24 274	2.1	17 523	72.2	5 216	21.5	1 535	6.3
1954	38 761	2.6	15 199	39.2	20 417	52.7	3 145	8.1
1955	19 952	1.7	6 881	34.5	11 727	58.8	1 344	6.7
1956	19 503	1.7	6 586	33.8	10 975	56.3	1 941	9.9
1957	25 372	1.9	9 221	36.3	12 616	49.7	3 535	14.0
1958	27 380	2.1	11 781	43.0	14 042	51.3	1 557	5.7
1959	29 120	2.0	21 075	72.4	6 691	23.0	1 254	4.6
1960	20 594	1.4	11 470	55.7	5 678	27.6	3 446	16.7
1961	16 707	1.2	5 213	31.2	7 721	46.2	3 773	22.6

SOURCE: ECLA sample data.

The sub-division in which the substitution effort was strongest was that of vehicles and accessories, which comprises passenger cars, motor-cycles and bicycles, as well as the corresponding accessories. The proportion of the group for which they accounted, after exceeding 50 per cent at the beginning of the period, by the end of it had fallen to about 30 per cent, while in absolute terms such imports were reduced by 90 per cent, as the result of the installation of the motor vehicle industry and its rapid integration process (the evolution of the data from 1959 onwards should be noted).

Although the amounts represented by the other two sub-divisions were insignificant in absolute terms, their percentage shares in imports of durable consumer goods increased, simply because in the later years of the period substitution advanced less rapidly in their case than in respect of the first group.

Where miscellaneous manufactured goods were concerned, the substitution process seems to have remained stationary from 1953 onwards. This illustrates the fact referred to in sub-section 2, in the discussion of the meaning of the term "import substitution". What happened here was obviously that the "apparent" substitution reflected since 1953 in a substantial contraction of imports of goods in this category (and of finished consumer goods in general) resulted from the discriminatory exchange measures adopted at that stage. It was, in fact, under the stimulus of the ensuing restriction of imports that "real" substitution afterwards took place, and even so only in so far as the goods produced were approximate substitutes for those formerly imported. When this was not the case, the relaxation of restrictions, or the trend towards unification of exchange rates registered as from 1960, caused imports of the items in question to resume their upward trend.

(c) Fuels and lubricants

Although imports of products in this group as a whole greatly increased in both absolute and relative terms, a more detailed analysis reveals substitution in some lines of production.

To begin with, attention should be drawn to the evolution of imports of liquid fuels. Up to 1954, virtually only petroleum products were imported, and no crude oil. From that year onwards, with the entry into operation of PETROBRAS' first big refining unit, an intensive substitution process began to take place in respect of processed fuels, and imports of crude oil swung sharply upwards. In this latter field, domestic production was also embarked upon at practically the same time, but it did not suffice to prevent an increase in the amount of foreign exchange spent on petroleum and petroleum products.

If the data in table 14 are now analysed, it will be seen that fuels constituted the bulk of imports in this category of which they represented about 80 per cent almost constantly throughout the period. Lubricants and other petroleum products, together with coal, accounted for a little under 20 per cent, but their relative positions slightly altered in the course of the period, the share of lubricants decreasing, while that of other derivatives increased.

Among fuels, there is clear evidence of substitution in respect of coal, both its quantum and its relative importance in the sub-group having declined. External purchases of coal accounted for 21 per cent of fuel imports in 1948 and only 7 per cent in 1961.

This situation was reversed in the case of liquid fuels. The quantum of imports showed a tremendous increase (over 300 per cent between 1948 and 1961), and con-

sequently the proportion of the sub-group they represented rose from 79 per cent in 1948 to 93 per cent in 1961.

A more detailed analysis of what happened in the case of liquid fuels (see table 15), reveals that from 1954 onwards, as has already been mentioned, substitution was effected on a substantial scale in respect of processed liquid fuels. It was of course accompanied by a sharp upswing in imports of crude oil, which soared from \$3 million to \$166 million (at constant prices) between 1954 and 1961. The share of crude oil in total imports of liquid fuels, which had been only 1 per cent in 1954, by 1961 had risen to over 60 per cent.

Among processed fuels, petrol registered a more intensive but less steady substitution process than fuel

oil. Petrol imports dropped by 75 per cent between 1954 and 1957. Thenceforward, however, no major contraction was registered, and in the last two years of the period an actual increase took place in relative terms. The reason for this, apart from the difficulties of expanding refining capacity, was the rapid growth of consumption, attributable largely to the development of the domestic motor vehicle industry, and also, in some measure, to the maintenance of the exchange subsidy granted to fuels. Fuel oils succeeded in achieving a steadier reduction of their share in imports, which attained its minimum level in 1961. Accounting for only 17 per cent of total imports of liquid fuels, it was, even so, slightly higher than the proportion corresponding to petrol, whereas up to 1954 it had been definitely lower.

Table 14

BRAZIL: IMPORTS OF FUELS, LUBRICANTS AND OTHER PETROLEUM DERIVATIVES, 1948-61
(Quantum in thousands of dollars at 1955 prices)

Year	Group total		(3.1) Fuels		(3.1.1) Coal		(3.1.2) Liquid fuels		(3.2) Lubricants		(3.3) Other derivatives	
	Quantum	Percentage of sample total	Quantum	Percentage of group total	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of group total	Quantum	Percentage of group total
1948	123 829	13.0	105 618	81.4	22 578	21.4	83 040	78.6	14 623	11.3	9 588	7.3
1949	136 903	13.4	113 288	82.8	16 906	14.9	96 382	85.1	12 306	9.0	11 309	8.2
1950	164 463	13.7	133 168	81.0	23 972	18.0	109 196	82.0	17 391	10.6	13 904	8.4
1951	212 299	11.4	166 382	78.4	22 215	13.4	144 167	86.6	27 638	13.0	18 279	8.6
1952	234 738	13.1	192 211	81.9	19 783	10.3	172 428	89.7	21 933	3.3	20 594	8.8
1953	231 395	20.1	186 570	80.7	14 898	8.0	171 671	92.0	21 946	9.5	22 819	9.8
1954	278 408	18.3	215 265	77.3	16 042	7.5	199 222	92.5	30 318	10.9	32 825	11.8
1955	271 108	22.8	215 683	79.6	22 120	10.3	193 563	89.7	22 362	10.4	27 062	10.0
1956	281 633	24.6	222 111	78.9	17 381	7.8	204 729	92.2	27 676	9.0	31 847	11.3
1957	254 433	19.0	206 347	81.1	18 269	8.9	188 078	91.1	26 927	10.6	21 159	8.3
1958	284 573	21.7	238 533	83.8	12 454	5.0	226 508	95.0	22 113	7.8	23 927	8.4
1959	279 089	19.3	228 578	81.9	13 454	5.9	215 125	94.1	26 118	9.4	24 394	8.7
1960	319 590	22.2	259 719	81.3	20 618	7.9	239 100	92.1	29 864	9.3	30 007	9.4
1961	322 834	22.5	264 296	81.9	17 494	6.6	246 802	93.4	25 909	8.0	32 629	10.1

SOURCE: ECLA sample data.

Table 15

BRAZIL: IMPORTS OF LIQUID FUELS, 1948-61
(Quantum in thousands of dollars at 1955 prices)

Year	Over-all total Quantum	Processed liquid fuels							
		Crude petroleum		Total		Petrol		Fuel oil	
		Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total
1948	83 040	—	—	83 400	100.0	46 168	55.6	36 872	44.4
1949	96 382	—	—	96 382	100.0	57 954	60.1	38 428	39.9
1950	109 196	241	0.2	108 955	99.8	59 900	54.9	49 055	44.9
1951	144 167	430	0.3	143 737	99.7	85 021	59.0	58 716	40.7
1952	172 428	389	0.2	172 039	99.8	102 882	59.7	69 157	40.1
1953	171 671	667	0.4	171 004	99.6	94 005	54.8	76 999	44.8
1954	199 222	3 124	1.6	196 098	98.4	102 484	51.4	93 614	47.0
1955	193 563	77 076	39.8	116 487	60.2	43 094	22.3	73 393	37.9
1956	204 729	107 267	52.4	97 462	47.6	26 083	12.7	71 379	34.9
1957	188 078	106 324	56.5	81 754	43.5	24 788	13.2	56 966	30.3
1958	226 508	124 015	54.8	102 493	45.2	36 230	16.0	66 263	29.3
1959	215 125	125 983	58.6	89 142	41.4	25 623	11.9	63 519	29.5
1960	239 100	124 705	52.2	114 395	47.8	42 828	17.9	71 567	29.9
1961	246 802	165 627	67.1	81 175	32.9	38 856	15.7	42 319	17.1

SOURCE: ECLA sample data.

In the field of lubricants and other petroleum products, fruitful substitution activities were undertaken in respect of certain derivatives such as grease, kerosene and turpentine, imports of which decreased substantially. But these endeavours did not suffice to reduce the quantum of imports itself in these two sub-groups, or, in view of their relative incidence, in the group as a whole.

Briefly, it may be concluded that despite the expansion of domestic output which took place in almost all lines of production, although most intensively in respect of processed fuels, the effort made failed to reverse the upward trend of imports in the group as a whole. This also constitutes the most rigid division of the schedule at present.

In the following section, a more precise evaluation of the effort put forth in this sector will be attempted on the basis of a comparison between domestic production and import series, and the import coefficients of apparent consumption will be analysed.

(d) *Metal raw materials and intermediate products*

This group was initially broken down by processed and semi-processed products.²⁹ Such classification is difficult to make, because there is no clear dividing line between the two levels of processing. Metal products in fact pass through several stages of processing, depending upon the production process and the purpose for which they are intended. The only purpose of the somewhat arbitrary breakdown referred to was to try to evaluate how far domestic production to replace imports in the two major categories of metal intermediate products—ferrous and non-ferrous—developed on more or less integrated lines.

²⁹ Raw materials were not taken into account, because the only metal ore imported is cassiterite, the figures for which are relatively insignificant.

Processed metals are taken to include sheet, shapes, structures, wire and filaments, and, in general, all high-grade rolled and wire-drawn products. Semi-processed metals comprise ingots, bars and rods and thick plate.

Analysis of the data presented in tables 16 and 17, reveals an increase in the proportion of imports represented by semi-processed materials, which means that the substitution effort was greater in the case of the processed intermediate products. Among the latter, it was the ferrous group whose relative importance was the greater. Non-ferrous products, besides accounting for only a small percentage, were the object of an intensive substitution process, so that by the end of the period imports of such goods were reduced to less than \$1 million.

In the case of processed iron and steel products, substitution is "visible" in the following cases: tinplate, filaments and wire, tubing and pipes, shapes, cylinders, tanks and other manufactured goods. On the other hand, the substitution effort is not reflected in the schedule where plate, structures and barbed wire are concerned. As the incidence of these latter items is very great, substitution in this sub-group is not apparent in absolute terms. But the decrease registered in relative terms testifies to the efficacy of the effort made.

Among semi-processed materials, it is the non-ferrous metal products whose share in imports is the greater. Substitution is "visible" in the sample only in the case of lead and tin products. In fact, the progress achieved in the metallurgical industry is still very unsatisfactory in the case of non-ferrous metals, especially copper, which currently accounts for 27 per cent of total imports of metal intermediate products and 50 per cent of imports of semi-processed metals. Even the branch of metallurgy that made the greatest strides—the aluminium sector—was unable to halt the expansion of imports in the last two years of the period.

Table 16

BRAZIL: IMPORTS OF INTERMEDIATE METAL PRODUCTS (PROCESSED), 1948-61
(Quantum in thousands of dollars at 1955 prices)

Year	Ferrous metal products													
	Total metal products		Total processed metal products		Total		Iron and steel plate and sheet		Tin plate		Barbed wire and staples for fencing		Non-ferrous products	
	Quantum	Percentage of sample total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total
1948	68 716	6.9	46 053	67.0	40 128	58.4	1 038	1.5	15 253	22.2	3 179	4.6	5 925	8.6
1949	96 168	9.4	57 691	60.0	49 921	51.9	1 167	1.2	10 297	10.7	8 256	8.6	7 770	8.1
1950	107 800	9.0	61 352	56.9	53 846	50.0	1 941	1.8	10 889	10.1	11 310	10.5	7 506	6.9
1951	152 076	8.2	89 728	59.0	76 247	50.1	2 287	1.5	21 147	13.9	12 084	7.9	13 481	8.9
1952	129 696	7.6	81 629	62.9	70 105	54.1	2 569	2.0	16 453	12.7	9 238	7.1	11 524	8.8
1953	112 268	9.8	68 146	60.7	59 725	53.2	9 414	8.4	14 443	12.9	6 793	6.1	8 421	7.5
1954	219 481	14.4	117 118	53.4	109 830	50.0	19 185	8.7	25 688	11.7	16 075	7.3	7 288	3.4
1955	111 246	9.4	68 444	61.5	65 856	59.2	7 405	6.6	16 215	14.6	6 203	5.6	2 588	2.3
1956	99 236	8.7	54 994	55.4	53 113	53.5	5 632	5.7	21 308	21.5	11 792	11.9	1 881	1.9
1957	124 561	9.3	65 307	52.4	63 667	51.1	8 258	6.6	24 595	19.7	12 068	9.7	1 640	1.3
1958	94 371	7.2	33 830	35.8	32 531	34.5	8 322	8.8	7 441	7.9	3 076	3.3	1 299	1.3
1959	98 364	6.8	54 417	55.3	52 886	53.8	15 371	15.6	13 083	13.3	4 001	4.1	1 531	1.5
1960	119 055	8.3	61 404	51.6	60 491	50.8	16 784	14.1	19 199	16.1	9 360	7.9	913	0.8
1961	134 651	9.4	62 189	46.2	61 339	45.6	20 893	15.5	9 065	6.7	8 856	6.6	850	0.6

SOURCE: ECLA sample data.

Table 17

BRAZIL: IMPORTS OF INTERMEDIATE METAL PRODUCTS (SEMI-PROCESSED), 1948-61
(Quantum in thousands of dollars at 1955 prices)

Year	Total metal products		Total semi-processed products		Non-ferrous products									
	Quantum	Percentage of group total	Quantum	Percentage of group total	Total		Copper products		Aluminium products		Zinc products		Ferrous products	
					Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total
1948	68 716	6.9	22 663	33.0	18 937	27.6	12 839	18.7	2 974	4.3	24	—	3 726	5.4
1949	96 168	9.4	38 477	40.0	33 485	34.8	26 949	28.0	3 395	3.9	216	0.2	4 992	5.2
1950	107 800	8.0	46 448	43.1	40 236	37.3	19 967	18.5	4 401	4.1	3 647	3.4	6 212	5.8
1951	152 076	8.2	62 348	40.1	55 137	35.4	26 542	17.5	6 919	4.5	4 391	2.9	7 211	4.7
1952	129 696	7.3	48 067	37.1	40 165	31.0	25 360	19.6	3 908	3.0	3 477	2.7	7 902	6.1
1953	112 268	9.8	44 122	39.3	40 617	26.2	20 827	18.6	5 122	4.6	4 589	4.1	3 505	3.1
1954	219 481	14.4	102 364	46.6	73 194	33.3	43 058	19.6	9 602	4.4	7 730	3.5	29 170	13.3
1955	111 246	9.4	42 802	38.5	30 498	27.4	15 199	13.7	4 092	3.7	5 047	4.5	12 304	11.1
1956	99 236	8.7	44 242	44.6	41 512	41.8	20 623	20.8	8 214	8.3	6 867	6.9	2 730	2.8
1957	124 561	9.3	59 254	47.6	54 452	43.7	29 411	23.6	8 188	6.6	5 482	4.4	4 802	3.9
1958	94 371	7.2	60 542	64.2	58 357	61.9	27 322	29.0	8 961	9.5	8 174	8.7	2 185	2.3
1959	98 364	6.8	43 948	44.7	40 743	41.4	20 353	20.7	5 623	5.7	7 809	7.9	3 205	3.3
1960	119 055	8.3	57 651	48.4	54 494	45.7	29 685	24.9	9 344	7.8	10 833	9.1	3 157	2.7
1961	134 651	9.4	72 462	53.8	67 109	49.8	36 317	27.0	11 575	8.6	11 561	8.6	5 353	4.0

SOURCE: ECLA sample data.

To sum up, the steel-making industry made a good deal of headway in the substitution of domestic production for imports of semi-processed intermediate products, and has still several stages to traverse where processed materials are concerned, especially plate, structures and barbed wire. The non-ferrous metal industries are in exactly the opposite position.

Factors of two different types account for this, in the writer's view: the existence or non-existence of proven reserves, and world market conditions for the sale of metal products. As Brazil has no iron ore and manganese problem, it was possible for the steel-making industry to be vertically integrated, and substitution was slower in respect of fully-processed materials for reasons of technology and scale of production. In the case of the non-ferrous metals, the only plentiful proven reserves are those of aluminium ore, while the difficulties of obtaining copper ore are particularly serious.

As non-ferrous ores are generally sold on the world market in a semi-processed state only, integration of the non-ferrous metal industries was not feasible, aluminium constituting almost the sole exception to this rule. On the other hand, high-grade rolled and wire-drawn products could be manufactured, with the result that substitution in respect of the more fully-processed items gained the lead.

However, efforts are being channelled towards the development of some sectors of the non-ferrous metal industries, both in relation to prospecting for mineral deposits and from the standpoint of the expansion of existing production capacity.

(e) Non-metallic raw materials and intermediate products

The growth of imports in this group as a whole outstripped that of the over-all import quantum in the course of the period, with the resulting increase in the percentage of the sample they represented. In 1961 the

relative importance of the group was exactly the same as that of equipment.

Nevertheless, a slightly more detailed breakdown shows that visible substitution took place in some lines of production. To this end, the first step is to divide the group into three sub-groups, as follows: raw materials, semi-processed and fully-processed products. This classification presents the same difficulties as were noted above, and its general aims are likewise the same. The following was the criterion adopted: the first sub-group includes all commodities that have undergone virtually no processing at all (wheat, raw rubber, ores, natural textile fibres, natural fertilizers); the second sub-group comprises goods that have been subjected to simple processing, and/or those which, despite more complex processing, are susceptible of subsequent transformation while remaining within the category of inputs or intermediate products (cases in point being pulp, tanned skins and hides, textile yarns, cement, organic and inorganic chemical products, plastic materials and synthetic resins, etc.); and the third sub-group embraces processed intermediate products which, as inputs, are not susceptible of any further transformation (chemical fertilizers and pesticides, paper, asbestos and rubber manufactures, refractory products, sheet glass, etc.).

From a study of table 18 it can be seen that there was a substantial increase in imports of raw materials, whose quantum was more than quadrupled in the course of the period, while their share in the group rose from 22 to 57 per cent.

Fully-processed intermediate products also failed to show "visible" substitution although the increment in their quantum, and particularly in their contribution to the group, was moderate. Especially in the last five years under consideration, their relative position remained comparatively stable, fluctuating around 20 per cent of the group.

Table 18

BRAZIL: IMPORTS OF NON-METALLIC RAW MATERIALS AND INTERMEDIATE PRODUCTS, 1948-61
(Quantum in thousands of dollars at 1955 prices)

Year	Raw materials						Semi-processed intermediate products						Processed intermediate products					
	Group total		Total raw materials		Wheat		Total semi-processed products		Wood products		Chemical and pharmaceutical products		Total processed products		Chemical fertilizers, insecticides and fungicides		Paper	
	Quantum	Percentage of sample total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total
1948	234	23.5	52	22.3	26	11.3	144	61.6	12	5.2	32	13.5	38	16.1	7	3.0	14	5.9
1949	254	24.9	91	35.8	68	26.6	127	50.1	22	8.8	42	16.6	36	14.1	8	3.0	11	4.4
1950	322	26.9	135	42.0	104	32.1	130	40.2	34	10.5	46	14.4	57	17.8	19	6.0	15	4.7
1951	439	23.7	161	36.5	110	25.1	186	42.4	33	7.5	66	15.1	92	21.1	29	6.6	19	4.3
1952	374	20.9	139	37.3	96	25.6	146	39.1	24	6.4	45	12.1	89	23.6	17	4.5	29	7.6
1953	328	28.6	165	50.4	136	41.5	117	35.6	24	7.4	31	9.6	46	14.0	8	2.3	23	7.0
1954	426	27.9	164	38.6	119	27.9	194	45.7	41	9.7	73	17.1	67	15.7	14	3.3	30	7.1
1955	372	31.3	183	49.4	142	38.3	128	34.3	28	7.5	46	12.3	61	16.3	11	2.9	31	8.4
1956	349	30.6	151	43.1	120	34.3	130	37.1	30	8.7	60	17.3	69	19.8	13	3.8	37	11.0
1957	351	26.3	154	43.9	121	34.6	116	32.9	31	8.8	52	14.7	81	23.2	14	4.0	47	13.0
1958	340	26.0	171	50.1	127	37.3	94	27.5	24	7.0	42	12.2	76	22.4	20	5.9	40	12.0
1959	373	25.9	211	56.5	153	41.2	88	23.6	24	6.5	44	11.7	74	19.9	21	5.6	39	10.0
1960	420	29.1	242	57.4	171	40.8	84	19.9	22	5.2	44	10.4	95	22.7	39	9.4	42	10.0
1961	409	28.6	231	56.5	159	38.8	90	22.0	20	4.8	49	12.0	88	21.4	29	7.1	36	9.0

SOURCE: ECLA sample data.

In the case of semi-processed goods, "visible" substitution definitely took place, both their quantum and their relative importance in the group declining, the latter proportionally to the increase in the share of raw materials.

This situation is understandable enough, and to some extent confirms the theory that in respect of non-metallic intermediate products the substitution process usually develops vertically, from the most to the least highly processed items. This does not mean that substitution did not occur in greater or lesser degree in all lines of production. In fact, if this were not so, the substitution process would be brought to a halt through a formidable upswing in imports of goods at the lowest levels of processing. The long-term outcome of the substitution process as a whole seems therefore to be as noted.

Within the period analysed, substitution in the more highly processed sub-group is not "visible", because a sector whose relative incidence is very considerable in under-developed countries—that of textile manufactures—was the one in which substitution was first effected, and in Brazil's case this happened prior to the period covered by the analysis. For the same reason, the share of processed goods in this group of imports was the smallest throughout the period. In the case of processed goods other than textiles, substitution is more difficult. Nevertheless, continuing efforts are under way, as will be seen later, and are particularly satisfactory in relation to rubber and asbestos manufactures, although less successful where paper and fertilizers are concerned. They have not sufficed, however, to reduce the share of products in this category in the import group under discussion, much less in the schedule.

To judge from the sample data, substitution in the sub-group comprising semi-processed materials was particularly marked in the case of wheat flour, textile yarns, cement (where self-sufficiency was achieved) and skins and hides.

With regard to pulp and other wood products a considerable effort was made, whose results were manifested during the last five years of the period in a contraction of imports of such commodities, in both absolute and relative terms. The same is true, although in a lesser degree, of chemical and pharmaceutical products in general.

Lastly, among raw materials, there was a substantial increase in imports of wheat and rubber. Wheat alone at the present time accounts for 40 per cent of imports in the whole group and 70 per cent of external purchases of raw materials. Rubber represents a much less serious problem, and its situation will be discussed in the next section.

There was also an increase, although on a smaller scale, in imports of sulphur, textile fibres and cereals other than wheat. Imports of natural fertilizers, asbestos, skins and hides remained practically stationary. The only imports in this sub-group that declined were those of a few products of mineral origin, such as marble, clay, chalk and asphalt, whose relative significance is negligible.

To sum up, it may be concluded that as regards non-metallic raw materials and basic inputs, the substitution

process has already reached a fairly advanced and therefore more difficult stage as far as fully processed goods are concerned, and is developing at a generally satisfactory rate in the case of semi-processed products. Raw materials, however, present considerable substitution problems. One of the few exceptions is rubber, in whose case conditions are favourable for the expansion of production, and for which it is even possible, technologically speaking, to substitute synthetic rubber. Apart from this, only a few products of mineral origin may perhaps come to be replaced by their domestically-produced counterparts.

The case of wheat is obviously the most serious, since it is difficult to control the expansion of consumption through import substitution based on similar commodities. Moreover, domestic production conditions are far from satisfactory from the standpoint of achieving even a reduction in the import coefficient of consumption, as can be seen from the following data:

BRAZIL: APPARENT CONSUMPTION OF WHEAT
(Thousands of tons)

Year	Apparent consumption	Production	Imports	Imports as a percentage of consumption
1948	728	405	313	44.4
1949	1 241	438	803	64.7
1950	1 760	532	1 228	69.8
1951	1 730	424	1 306	75.5
1952	1 824	690	1 134	62.2
1953	2 387	772	1 615	67.7
1954	2 280	871	1 409	61.8
1955	2 787	1 101	1 686	60.5
1956	2 307	885	1 422	61.6
1957	2 222	781	1 441	64.9
1958	2 139	589	1 506	72.5
1959	2 475	611	1 820	75.3
1960	2 935	902	2 033	69.3

SOURCES: Serviço de Estatística Econômica e Financeira (SEEF) and Serviço de Estatística de Produção (SEP).

(f) Capital goods

As has already been pointed out, Brazil allocates a considerable amount of foreign exchange to imports of capital goods—between \$300 million and \$500 million, without counting such exceptional years as 1951 and 1952, in which imports soared to exceedingly high levels. Their share in the schedule has thus been kept within reasonable limits, fluctuating between 30 and 40 per cent, and this fact largely accounts for Brazil having been able to maintain its rate of economic growth.

It should be stressed, however, that so constant a proportion of imports does not imply the absence of substitution in this field. Substitution did in fact take place in various lines of production, during the later years of the period, as a result of the installation and expansion of several metal transforming industries in Brazil.

From an analysis of table 19 it can be seen that the substitution process in question was "visible" at an

early stage in the case of agricultural equipment (it began with agricultural tools and implements, long before 1948³⁰).

In respect of transport equipment, it was "visible" only in the last two years of the period under review, but actually started with the installation of the motor vehicle industry, whose large-scale operation dates from 1957.

³⁰ See reference period.

Machinery and equipment for specific industries show some signs of substitution, especially if a comparison is made between the earliest and latest years of the period. In practice, however, as can be seen in table 20, definitely "visible" substitution took place only in the case of machinery for the textile industry. It was offset by a substantial increase in imports of equipment for foundries and the metallurgical industry in general, although by the last two years of the period some degree of contraction, especially in absolute terms, was observable.

Table 19

BRAZIL: IMPORTS OF CAPITAL GOODS, 1948-61
(Quantum in thousands of dollars at 1955 prices)

Year	Total		Agricultural equipment		Machinery and equipment for specific industries		Electrical machinery and appliances		Transport machinery and equipment		Miscellaneous machinery and equipment	
	Quantum	Percentage of sample total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total	Quantum	Percentage of group total
1948	392 085	39.3	26 709	6.8	54 453	13.9	43 551	11.1	153 257	39.1	114 115	29.1
1949	375 377	36.7	40 314	10.7	57 233	15.2	40 991	10.9	91 619	24.4	145 220	38.8
1950	443 299	37.0	86 346	19.5	57 682	13.0	41 020	9.3	111 868	25.2	146 383	33.0
1951	757 160	40.8	49 168	6.5	87 585	11.6	81 773	10.8	264 464	34.9	274 170	36.2
1952	820 252	45.9	52 228	6.4	100 895	12.3	95 231	11.6	264 925	32.3	306 974	37.4
1953	368 672	32.0	13 204	3.6	73 438	19.9	59 345	16.1	80 894	21.9	141 792	38.5
1954	462 570	30.4	28 382	6.1	53 262	11.5	63 663	13.8	106 501	23.0	210 761	45.6
1955	323 960	27.2	13 630	4.2	50 177	15.5	49 127	15.2	89 335	27.6	121 691	37.5
1956	302 747	26.5	13 868	4.6	37 634	12.4	45 275	15.0	93 957	31.0	112 014	37.0
1957	494 903	37.1	13 730	2.8	52 722	10.7	47 824	9.7	195 287	39.5	185 340	37.3
1958	501 628	38.3	8 147	1.6	44 318	8.8	47 052	9.4	234 888	46.8	167 223	33.4
1959	599 841	41.7	5 096	0.8	63 720	10.6	51 077	8.5	317 519	52.9	162 429	27.2
1960	482 036	33.4	7 084	1.5	47 178	9.8	49 422	10.3	172 700	35.8	205 653	42.6
1961	449 507	31.4	8 190	1.8	44 071	9.8	78 207	17.4	90 004	20.0	229 035	51.0

SOURCE: ECLA sample data.

Table 20

BRAZIL: IMPORTS OF AGRICULTURAL AND INDUSTRIAL EQUIPMENT, 1948-61
(Quantum in thousands of dollars at 1955 prices)

Year	Agricultural equipment			Machinery and equipment for specific industries								
	Total agricultural equipment	Agricultural implements		Total machinery and equipment for specific industries	For foundries and metallurgical industries		For pulp and paper industry		For textile industry		For publishing industry	
		Quantum	Quantum		Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum
1948	26 709	10 620	39.8	54 453	1 269	2.3	1 915	3.5	35 021	64.3	4 402	8.1
1949	40 314	20 778	51.5	57 233	965	1.7	2 887	5.0	37 312	65.2	5 634	9.8
1950	86 346	28 240	32.7	57 682	5 642	9.8	3 883	6.7	27 456	47.8	8 644	15.0
1951	49 168	16 538	33.6	87 585	9 802	11.2	3 788	4.3	43 763	50.0	11 992	13.7
1952	52 228	12 425	23.8	100 895	7 271	7.2	7 284	7.2	56 367	55.9	13 738	13.6
1953	13 204	3 200	24.2	73 438	15 940	21.7	6 779	9.2	26 972	36.7	7 153	9.7
1954	28 382	20 610	72.6	53 262	15 232	28.6	5 025	9.4	18 467	34.7	7 480	14.0
1955	13 630	6 138	45.0	50 177	12 460	24.8	6 149	12.3	16 375	32.6	6 171	12.3
1956	13 868	6 259	45.1	37 634	9 743	25.9	1 124	3.0	13 399	35.6	4 116	10.9
1957	13 730	9 257	67.4	52 722	15 969	30.3	6 609	12.5	9 344	17.7	4 232	8.0
1958	8 147	5 407	66.4	44 318	21 005	47.4	1 803	4.1	10 054	22.7	4 705	10.6
1959	5 096	2 926	57.4	63 720	34 865	54.7	1 541	2.4	8 454	13.3	4 835	7.6
1960	7 084	4 934	69.6	47 178	26 502	56.2	3 866	8.2	7 969	16.9	4 594	9.7
1961	8 190	2 951	36.0	44 071	16 921	38.4	3 152	7.2	16 380	37.2	4 383	9.9

SOURCE: ECLA sample data.

From 1956 onwards, the group constituted by electrical machinery and equipment registered a fairly constant volume of imports, revealing the considerable substitution effort made in that sector. In 1961, however, imports reached their peak for the whole period. This was attributable to a substantial increase in purchases of heavy equipment, which is the branch of production in which the substitution effort has only very recently been initiated (see table 21).

Lastly, it was in the proportion of the schedule represented by the remaining types of machinery and equipment, grouped under the head of miscellaneous items, that the biggest increment was registered during the period, in the course of which this sub-division came to account for 50 per cent of imported equipment. It covers, as will be seen later, all the heavy metal-transforming industries.

(i) *Electrical machinery and equipment* (table 21): The two branches in which marked substitution took place were communications and medical and hospital

equipment. Substitution is also "visible" from 1953 onwards, although on a less significant scale, in respect of motors, generators and transformers, which had originally represented more than one half of total imports of electrical equipment. The reason is that this sub-group comprises both light and heavy equipment. Where substitution actually took place was in the lighter lines of production, and, as already stated, it is only just beginning in the heavier branches. Even so, this is still the group whose relative importance within the table is greatest.

The only sub-group which represented a steadily expanding proportion of imports and in which considerable figures were reached was that of miscellaneous items and accessories, the explanation obviously lying in the domestic production process itself, which began with the assembly of imported parts and only gradually advanced towards integration. Moreover, the accessories in question include electrical parts for the motor vehicle industry, whose incidence is decisive as regards the increase in the relative importance of this sub-group.

Table 21

BRAZIL: IMPORTS OF ELECTRICAL MACHINERY AND APPLIANCES, 1948-61

(Quantum in thousands of dollars at 1955 prices)

Year	Total electrical machinery and appliances	Motors, generators and transformers	Machinery and equipment for communications		Radiological, medical and hospital equipment		Equipment for vehicles and internal combustion engines		Other electrical machinery and appliances		Miscellaneous articles and accessories		
	Quantum	Quantum	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	
1948	43 551	24 213	55.6	9 690	22.3	2 788	6.4	3 008	6.9	1 422	3.3	2 429	5.5
1949	40 991	22 147	54.0	4 650	11.3	2 967	7.2	4 271	10.4	3 444	8.4	3 512	8.7
1950	41 020	21 914	53.4	4 218	10.3	4 116	10.0	3 705	9.0	4 076	9.9	2 991	7.4
1951	81 773	36 647	44.8	7 595	9.3	4 273	5.2	9 073	11.1	4 596	5.6	19 589	24.0
1952	95 231	48 948	51.4	11 823	12.4	4 164	4.4	7 572	8.0	5 681	6.0	17 043	17.8
1953	59 345	36 163	60.9	5 876	9.9	3 148	5.3	1 390	2.3	4 169	7.0	8 599	14.6
1954	63 663	37 660	59.2	4 836	7.6	3 041	4.8	3 721	5.8	4 439	7.0	9 968	15.6
1955	49 127	24 513	49.9	8 894	18.1	1 861	3.8	2 157	4.4	2 895	5.9	8 807	17.9
1956	45 275	20 974	46.3	10 571	23.3	1 823	4.0	2 003	4.4	3 251	7.2	6 652	14.8
1957	47 824	18 577	38.8	10 794	22.6	3 029	6.3	3 131	6.5	5 402	11.3	6 892	14.5
1958	47 052	20 321	43.2	6 340	13.5	1 416	3.0	2 737	5.8	6 000	12.8	10 238	21.7
1959	51 077	22 062	43.2	4 343	8.5	823	1.6	2 702	5.3	10 234	20.0	10 913	21.4
1960	49 422	14 978	30.3	3 197	6.5	1 189	2.4	3 899	7.9	7 299	14.8	18 860	38.1
1961	78 207	36 808	47.1	6 156	7.9	1 234	1.6	4 760	6.1	7 408	9.5	21 840	27.8

SOURCE: ECLA sample data.

(ii) *Transport equipment* (table 22): As is natural intensive substitution is observable in respect of road transport equipment. Its share in this group of imports had dropped abruptly by the end of the period. Although existing production capacity in the railway material industry was largely under-utilized, no reduction of imports was achieved, except in the last two years of the period. This was mainly due to lack of complementarity and to somewhat unsatisfactory management and import policies. It must be noted, moreover, that as from 1957 imports of track (which are included

in the group) became considerable—except in the last year of the period—as a result of the steel-making industry's own internal production policy. Since the different lines of end products are up to a point alternative, and the manufacture of track is relatively less lucrative, it is understandable that existing production capacity is used to obtain other goods of higher market value.

Maritime and air transport equipment shows no signs of a substitution process, and currently accounts for 66 per cent of total imports in this group.

Table 22

BRAZIL: IMPORTS OF TRANSPORT EQUIPMENT, 1948-61
(Quantum in thousands of dollars at 1955 prices)

Year	Total transport machinery and equipment	Railway material		Locomotives, rail-cars, motors and accessories		Track, cog-rails and switches		Road vehicles		Engines, chassis and accessories for motor vehicles		Other transport equipment	
	Quantum	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group
1948	153 257	21 553	14.1	13 698	8.9	4 350	2.8	118 047	77.0	83 979	54.8	13 657	8.9
1949	91 619	12 835	14.0	7 534	8.2	918	1.0	69 652	76.0	48 054	52.5	9 132	10.0
1950	111 858	7 533	6.7	3 520	3.1	888	0.8	95 760	85.6	58 976	52.7	8 575	7.7
1951	264 464	9 601	3.6	6 203	2.3	945	0.4	188 468	71.3	116 454	44.0	66 395	25.1
1952	264 925	43 423	16.4	39 811	15.0	1 473	0.6	160 485	60.6	91 567	34.6	61 017	23.0
1953	80 894	19 714	24.4	11 225	13.9	1 219	1.5	32 409	40.1	10 659	13.2	28 771	35.6
1954	106 501	8 495	8.0	3 735	3.5	1 431	1.3	88 850	83.4	47 929	45.0	9 157	8.6
1955	89 335	23 969	26.8	2 457	2.8	3 965	4.4	41 235	46.2	29 796	33.4	24 131	27.0
1956	93 957	8 086	8.6	4 866	5.2	1 281	1.4	58 860	62.7	43 774	46.6	27 011	28.8
1957	195 287	40 504	20.7	7 534	3.9	13 300	6.8	124 654	63.8	89 933	46.1	30 130	15.4
1958	234 888	26 597	11.3	5 970	2.5	11 883	5.1	191 334	81.5	144 448	61.5	16 957	7.2
1959	317 519	52 676	16.6	5 791	1.8	38 163	12.0	231 888	73.0	184 658	58.2	32 956	10.4
1960	172 700	30 593	17.7	4 921	2.8	22 575	13.1	94 442	54.7	89 305	51.7	47 665	27.6
1961	90 004	14 959	16.6	6 306	7.0	6 776	7.5	15 753	17.5	14 325	15.9	59 292	65.9

SOURCE: ECLA sample data.

(iii) *Miscellaneous machinery and equipment* (table 23): In this group no "visible" substitution can be noted. On the contrary, aggregate imports doubled between the beginning and the end of the period, their quantum in 1961 exceeding \$200 million.

The sub-group whose relative importance is highest is that of equipment for the heavy metal-transforming

industry, whose share fluctuates between 50 and 65 per cent of total imports in this group. Its composition can be seen in table 24, which bears witness to the increase in the proportion represented by machine-tools during the last part of the period—when the principal metal transforming industries were installed—and the concomitant decrease (in relative terms) in imports of prime movers.

Table 23

BRAZIL: IMPORTS OF MISCELLANEOUS MACHINERY AND EQUIPMENT, 1948-61
(Quantum in thousands of dollars at 1955 prices)

Year	Total miscellaneous machinery and equipment	Heavy metal-transforming machinery		Medium and light equipment		Scientific and professional apparatus		Typewriters and other machines for office use		Unspecified articles and accessories	
	Quantum	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group
1948	114 115	56 851	49.8	24 800	21.7	10 803	9.5	9 467	8.3	12 194	10.7
1949	145 220	81 159	55.9	27 349	18.8	11 325	7.8	11 136	7.7	14 251	9.8
1950	146 383	83 547	57.1	27 905	19.1	8 442	5.8	12 640	8.6	13 849	9.4
1951	274 170	147 597	53.8	60 952	22.2	11 467	4.2	18 588	6.8	35 566	13.0
1952	306 974	172 445	56.2	56 203	18.3	12 586	4.1	15 061	4.9	50 679	16.5
1953	141 792	94 139	66.4	21 049	14.8	6 663	4.7	3 662	2.6	16 279	11.5
1954	210 761	137 001	65.0	33 866	16.1	12 999	6.2	8 718	4.1	18 178	8.6
1955	121 691	64 926	53.4	28 159	23.1	8 975	7.4	4 573	3.8	15 058	12.3
1956	112 014	60 078	53.6	26 755	23.9	9 662	8.6	4 979	4.4	10 540	9.5
1957	185 340	114 514	61.8	29 444	15.9	13 838	7.5	8 652	4.7	18 893	10.1
1958	167 223	106 283	63.6	23 020	13.8	13 079	7.8	11 494	6.9	13 348	7.9
1959	162 429	85 030	52.3	40 488	24.9	9 936	6.1	9 392	5.8	17 583	10.9
1960	205 653	131 494	63.9	38 243	18.6	10 818	5.3	12 064	5.9	13 033	6.3
1961	229 035	124 146	54.2	42 228	18.4	14 240	6.2	18 547	8.1	29 874	13.1

SOURCE: ECLA sample data.

Table 24

BRAZIL: PRINCIPAL ITEMS IN SUB-GROUPS OF IMPORTS OF HEAVY METAL-TRANSFORMING MACHINERY
(Quantum in thousands of dollars at 1955 prices)

Year	Total heavy metal transforming industries	Machine-tools		Prime movers		Conveying and lifting machinery		Machinery for road building and repairs		Tractors	
	Quantum	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group	Quantum	Percentage of sub-group
1948	56 851	5 314	9.3	18 391	32.3	12 611	22.2	12 545	22.1	6 238	11.0
1949	81 159	7 813	9.6	20 471	25.2	12 236	15.1	25 788	31.8	12 567	15.5
1950	83 547	9 060	10.8	21 123	25.3	8 504	10.2	30 889	37.0	31 403	37.6
1951	147 597	23 955	16.2	32 646	22.1	9 716	6.6	27 163	18.4	41 581	28.2
1952	172 445	30 464	17.7	36 890	21.4	13 238	7.7	38 333	22.2	33 968	19.7
1953	94 139	7 139	7.6	20 573	21.9	8 385	8.9	18 145	19.3	24 302	25.8
1954	137 001	9 087	6.6	24 787	18.1	7 569	5.5	24 539	17.9	63 241	46.2
1955	64 926	8 071	13.4	15 670	24.1	5 798	8.9	7 997	12.3	22 149	34.1
1956	60 078	8 104	13.5	13 876	23.1	5 039	8.4	8 310	13.8	18 712	31.1
1957	114 514	11 758	10.3	22 433	19.6	5 725	5.0	30 170	26.3	39 571	34.6
1958	106 283	13 947	13.1	16 260	15.3	7 115	6.7	25 654	24.1	40 405	38.1
1959	85 030	26 215	30.8	14 384	16.9	6 258	7.4	11 177	13.1	24 184	28.4
1960	131 494	13 347	10.2	17 592	13.4	8 885	6.8	24 947	19.0	60 791	46.2
1961	124 146	27 374	22.1	20 483	16.5	18 702	15.1	15 927	12.8	35 740	28.8

SOURCE: ECLA sample data.

Other imports of heavy machinery also show more or less marked fluctuations, the most representative case being that of machinery for road building and repairs, in which a considerable decline was registered during the critical years 1955-56.

Broadly speaking, in respect of heavy equipment as of medium and light equipment, of scientific apparatus as of machines for office use, there was a considerable increase in imports in absolute terms (irrespective of their relative trends) between the beginning and end of the period covered by the analysis.

To sum up, in the light of the study of the main sample items, it may be concluded that no real substitution process took place in respect of capital goods as a whole. Although in recent years a number of lines of domestic production of equipment were installed, in practice the results were insufficient to meet any considerable proportion of the existing internal demand, with the sole exception of transport equipment. The causes of this phenomenon, which coincides with the existence of under-utilized capacity in several branches of the equipment industry, will be discussed in the following sections.

D. RELATIONSHIP BETWEEN THE STRUCTURE AND EVOLUTION OF INDUSTRIAL PRODUCTION AND OF IMPORTS

This section will show, in broad terms, how the structure of Brazil's industrial sectors was modified as a result of the import substitution process. For this purpose a comparative analysis is made of some production and imports series, by sector and by product, in order to throw more light on substitution as actually carried out in certain branches of industry, since a simple analysis of the import structure is insufficient for its evaluation.

The analysis deals only with those manufacturing industries on which the best statistical series are available and which, moreover, are most directly linked to the substitution process.

The first part of this section comprises a brief evaluation of the changes that have taken place in the production structure of the leading manufacturing sectors, and of the parallel changes in the import structure of industrial products. The aim of this evaluation is to measure, by means of the import coefficient in terms of the total sectoral supply, the substitution that actually took place in each branch of activity.

In the second part a comparison is made between the evolution of the relevant series on industrial production and on imports, and between their respective growth rates, in an attempt to assess how far the rate of the former in the last few years was rapid enough to reduce or at least to curb the growth rate of the latter. In addition, a few salient products are picked out in each sector to show the evolution of the share of imports in the total apparent consumption of such products.

The above-mentioned analysis, although brief, will convey some idea of the results of the substitution process for the main sectors of Brazil's manufacturing industry.

1. Sectoral changes in the structure of Brazilian industry from 1949 to 1961

The sectoral changes in the structure of industry can be evaluated in the light of the data in table 25,³¹ which

³¹ The production figures contained in this table are based on the 1949 Census data and on data on Brazil's industrial output in 1958. The provisional data for 1961 were taken from the August 1963 issue of *Desenvolvimento e Conjuntura*. For the selection of data on industrial imports, by groups of manufacturing industries, a correlation was established between the SEEF 1953 nomenclature for Brazilian goods and Brazil's industrial classification.

One shortcoming of the table comparing 1949, 1958 and 1961 is that the data are expressed in terms of current cruzeiros. Distortions may have crept in as a result of variations in the relative prices, but since price indexes by manufacturing sector were not available, there was no other course to follow. It should also be pointed out that the production figures for 1961 are tentative in the extreme.

indicate that substantial changes took place between 1949 and 1961.

In 1949 two industries alone—food and textiles—accounted for over 50 per cent of the total value of manufacturing production. The share of each of the remaining industries was less than 10 per cent, although metallurgy and chemicals had already begun to emerge as the next in order of importance, even if at a far lower level than the first two.

By 1958 the combined share of the food and textile industries had declined to 36 per cent, and in 1961 accounted for only 34 per cent of aggregate production value. Generally speaking, a considerable increase took place in the relative importance of the metal-transforming, metallurgical, electrical equipment, transport equipment and chemical industries, which for this reason, are henceforward termed the dynamic industries. The group as a whole expanded its participation from 22 per cent in 1949 to 38 per cent in 1958 and 41 per cent in 1961.

The converse is true of the traditional industries, namely, food products, beverages, tobacco manufactures, hides and skins, textiles, clothing, wood products, furniture and printing and publishing, whose total share fell from 70 per cent in 1949 to 52 per cent in 1958 and 49 per cent in 1961. This does not mean that these industries have not stepped up their production, but simply, shown later, that they did so at a far slower pace than the first group mentioned, and are therefore referred to hereafter as the slow-growth industries.

The industries for processing non-metalliferous ores, paper, paperboard and rubber, which are here termed the intermediate industries,³² also increased their share of production (from 8 per cent in 1949 to 10 per cent in 1958-61), but to a less marked extent than the dynamic industries.

Some data are given below to indicate how changes in the structure of production affect the import substitution process. To that end an examination is made of the changes in the structure of industrial imports (grouped under the heads of the different manufacturing industries), in conjunction with the variations in the coefficients expressing imports as a proportion of the total sectoral supply.

Industrial imports that may be regarded as belonging to the slow-growth industries were in general at an exceeding low level in 1949. This indicates that the majority of these industries had by then virtually completed the substitution process. It also explains why the figures for imports of furniture, clothing and tobacco manufactures are of no significance, the relevant import coefficients having dropped practically to nothing.

³² The term "intermediate industries" does not refer merely to the fact that their output is destined for intermediate use in the production process in general, since that is equally true of some products of the traditional and dynamic industries. As, however, the latter are classified in sectoral aggregates, which make it impossible to separate production according to use (intermediate or final), and the output of the three sectors considered (non-metalliferous ores, paper and rubber) is mostly destined for intermediate use, their grouping in a third category would appear to be justified. Even more important, however, is the fact that their average growth rate comes somewhere between that of the other two groups (the slow-growth and the dynamic industries). Hence it was decided to adopt the term "intermediate", subject to the necessary reservations.

Imports of wood products, hides and skins, beverages and printed matter are equally insignificant. The share of the first group remained the same throughout the period and the import coefficient (1 per cent) was virtually unchanged. Imports of hides and skins declined, and their import coefficient with respect to total supplies dropped to negligible proportions. Beverages and printed matter increased their share of imports, and as a result of the unsatisfactory growth of domestic production, their import coefficients registered a moderate rise between 1949 and 1958. However in 1961 the publishing industry seems to have succeeded in reducing both its import coefficient and its share in total imports.

The only slow-growth industries of importance for an analysis of the substitution process are food products and textiles. In both, production must have expanded more rapidly than consumption, since there was a simultaneous drop in their import coefficients with respect to total supplies and in their relative share of imports. Nevertheless, substitution was more drastic in the textile industry. In fact, textile imports dropped sharply and the import coefficient fell in 1958 to less than 1 per cent of the over-all supply, and remained at that level up to 1961.

The situation will now be examined from the angle of the dynamic industries. In all cases, the import coefficient in 1949 was fairly high in relation to total supply, and so was these industries' contribution to industrial imports. This corresponded to the particular import substitution phase reached by the economy at the time.

Generally speaking the expansion of production caused a sharp reduction in the import coefficients; however the 1961 data appear to indicate that, in some industries, substitution after 1958 was not sufficient to keep the coefficients down to the level reached that year.

The highest import coefficients for 1949 were registered by the metal-transforming, transport equipment and electrical equipment industries.

In 1958 there was an appreciable drop in the import coefficient of the metal-transforming industry, and also in its share of imports. However, both these indicators rose considerably in 1961, and there was a slight decline in the industry's contribution to total production. This is undoubtedly the branch of industry where the greatest substitution effort has yet to be made; its import coefficient is by far the highest of all the manufacturing industries, since it is nearly 50 per cent of the total supply in this sector.

The most satisfactory results in the years under review were achieved by the transport equipment industry, although the main effort was made only after 1957, when Brazil's motor-vehicle industry was established. Hence the increase in this industry's share of imports in 1958 (consisting mainly of spare parts, as noted above), despite the sharp decline in the import coefficient. In 1961, on the other hand, both the import coefficient and the share of imports fell sharply.

In the electrical equipment industry there was a reduction of 70 per cent in the import coefficient between 1949 and 1958, which was the sharpest drop in any industrial sector during the period. This intensive substitution represented the establishment of industries manufacturing household electrical appliances and light equipment and

Table 25
BRAZIL: PRODUCTION, IMPORTS AND IMPORT COEFFICIENTS FOR THE MANUFACTURING INDUSTRIES
(Millions of current cruzeiros)

Branch of manufacturing industry	1949				1958				1961				Imports as a percentage of total production + imports		
	Imports	Percentage	Production	Percentage	Imports	Percentage	Production	Percentage	Imports	Percentage	Production	Percentage	1949	1958	1961
Metallurgy	2 334	13.5	8 137	7.7	10 237	12.6	76 977	11.0	35 221	16.3	266 030	13.4	22.3	11.7	11.7
Metal-transforming	3 032	17.5	1 719	1.6	12 480	15.4	17 577	2.5	41 754	19.4	48 468	2.4	63.8	41.5	46.3
Electrical and communication equipment	1 218	7.0	1 502	1.4	4 773	5.9	31 163	4.4	17 088	7.9	84 171	4.2	44.8	13.3	16.9
Transport equipment	3 232	18.6	2 477	2.3	20 590	25.3	46 850	6.7	37 189	17.2	163 185	8.1	56.6	30.5	18.6
Chemicals and pharmaceutical products	3 809	22.0	9 196	8.7	23 424	28.8	93 934	13.4	54 566	25.3	259 459	12.9	29.3	20.0	17.4
Processing of non-ferrous ores	542	3.1	4 835	4.6	1 826	2.2	33 701	4.8	4 078	1.9	88 751	4.4	10.1	5.1	4.4
Paper and paperboard.....	226	1.3	2 132	2.0	1 134	1.4	20 427	2.9	4 821	2.2	62 135	3.1	9.6	5.3	7.2
Rubber	22	0.1	1 722	1.6	972	1.2	13 890	2.0	6 796	3.2	39 573	2.0	1.3	6.5	14.7
Wood products	37	0.2	3 634	3.4	180	0.2	17 934	2.6	352	0.2	51 106	2.5	1.0	1.0	0.7
Textiles	1 319	7.6	20 026	19.0	578	0.7	98 941	14.1	1 702	0.8	269 738	13.4	6.2	0.6	0.6
Clothing, footwear, etc.....	—	—	4 649	4.4	3	—	26 177	3.7	11	—	68 114	3.4	0.2	—	—
Food products	1 362	7.8	34 302	32.5	4 002	4.9	159 058	22.6	9 301	4.3	411 669	20.5	3.8	2.5	2.2
Beverages	82	0.5	3 348	3.2	485	0.6	18 083	2.6	1 366	0.6	51 345	2.6	2.4	2.6	2.6
Tobacco	6	—	1 475	1.4	18	—	9 270	1.3	6	—	—	—	0.4	—	—
Printing and publishing....	69	0.4	3 031	2.9	501	0.6	16 363	2.3	1 377	0.6	—	—	2.2	3.0	1.0
Furniture	6	—	1 781	1.7	2	—	13 553	1.9	5	—	148 404	7.3	0.3	—	—
Hides and skins.....	50	0.3	1 630	1.5	69	0.1	8 876	1.3	57	—	—	—	3.0	0.7	—
<i>Total</i>	<i>17 353</i>	<i>100.0</i>	<i>105 596</i>	<i>100.0</i>	<i>81 274</i>	<i>100.0</i>	<i>702 784</i>	<i>100.0</i>	<i>215 690</i>	<i>100.0</i>	<i>2 012 148</i>	<i>100.0</i>	<i>15.6</i>	<i>11.3</i>	<i>9.7</i>

SOURCE: Yearbooks on industrial production and foreign trade, and the periodical *Desenvolvimento e Conjuntura*.

fixtures, and the result was an increase in the sector's contribution to the total value of industrial production, and a relative reduction in imports. Once substitution was virtually completed in the lighter industries, the growth of industry as a whole slowed down considerably, as shown by the data for 1961. In fact, that year witnessed a complete reversal of the previous pattern of behaviour, as regards not only production and imports, but also the import coefficient, which rose again to nearly 17 per cent of the total supply of electrical equipment.

The two dynamic industries in which import substitution had already reached a more advanced stage by 1949 were the chemical and pharmaceutical industry and the metallurgical industry. The latter considerably increased its contribution to production, particularly at the end of the period, when it outstripped all the other manufacturing industries except the food industry. It was impossible to reduce the import coefficient after 1958, however, because of the rapid growth of consumption. The reverse is true of the chemical and pharmaceutical industry; despite the contraction of its contribution to production during that period, it expanded sufficiently in absolute terms to reduce the import coefficient in 1961, as well as its share in imports, even though the latter still accounted for over 25 per cent of total industrial imports for that year.

Lastly, in the intermediate industries, for the processing of non-metalliferous ores the results of substitution were entirely satisfactory, for the paper and paperboard industry much less so, and for the rubber industry completely unsatisfactory.

In the first sector not only did the already small share of imports diminish still further, but the import coefficient declined by over 30 per cent between 1949 and 1961. The expansion of production in the paper and paperboard industry between 1949 and 1958 permitted a reduction in the import coefficient; however, in spite of a persistent rise in its share of industrial production, the industry was unable to prevent a rise in the import coefficient in 1961. This shows that there was a marked expansion of consumption in the last few years, which can be ascribed to the parallel substitution process which took place in the printing and publishing industry.

At the beginning of the period in question the rubber industry had one of the lowest import coefficients, while its share of imports was negligible. However, the expansion of its production capacity lagged far behind the increased growth rate of consumption, especially at the end of the period, and the result was a sharp increase in the import coefficient, which in 1961 was about 15 per cent of the total value of supply in the sector.

To sum up, generally speaking nearly all the manufacturing industries can be said to have achieved a considerable import substitution during the period under review. The extent of this achievement can be measured by the fact that the average import coefficient (in terms of the total supply of industrial products) fell from nearly 16 per cent in 1949 to less than 10 per cent in 1961.

The only industries in which no effective type of substitution could be distinguished were the rubber and beverage industries. In all the rest, it is evident from a comparison of the figures for the beginning and the end of the period that production expanded faster than consumption. Most of them even attained rates capable of

reducing the corresponding imports in relative terms. This does not mean that a reduction took place in absolute terms; as shown below, this occurred in one or two sectors only, and even then rarely for the whole period.

These import substitution activities in the manufacturing sector brought about marked changes in the structure of production and consequently in the structure of imports. In the first place, there was an appreciable decline in the relative importance of food products and textiles, in both production and imports. In fact, from 1958 on the substitution process may be regarded as having come to an end in the traditional industries as a whole.

From the standpoint of the structure of imports, the only sectors that increased their share in the sample were the metallurgical, metal-transforming, and chemical and pharmaceutical industries, which in 1961 accounted for over 50 per cent of the total volume of industrial imports.

As might be expected, the most dynamic behaviour during the period concerned was that of the basic industries, whose high import coefficients in terms of total supply left room for considerable substitution. However, certain of these industries appear to have lost something of their dynamism between 1958 and 1961.³³ In the two most obvious cases, the metal-transforming and electrical equipment industries, this slower rate of growth is easily explained by two main factors: the transition from the categories of light industries to the capital-intensive industries, and the reduction of the margin of domestic market that remains for substitution.

Examination of the size of import coefficients in terms of sectoral supply shows that they were still relatively high in 1961 for the metal-transforming, chemical, rubber and transport equipment industries.

These are nevertheless the only branches of industry in which effective substitution is possible on a fairly large scale in the next few years, and even so it would be significant in absolute terms only in the first three industries. Since, moreover, those three sectors would require a high capital investment for expansion of their production capacity, it is clear that to proceed with industrialization purely by means of import substitution, even if this were possible, would lead to an expansion of the economy entailing a reduction in the product-capital ratio, that is, at least in the short term, decreasing yields in macro-economic terms.³⁴

The feasibility and implications of such a course are considered in the last sections of this study.

2. The evolution of domestic production in the main manufacturing industries, and of the corresponding imports³⁵

The total output of the manufacturing industries increased by about 82 per cent in the period 1955-61, com-

³³ It must be borne in mind that the data for 1961 are very tentative; however, they can be regarded as acceptable for purposes of comparison in relative terms, on the assumption that the errors are distributed evenly throughout the sample.

³⁴ Of course, the expansion of industrial production in those sectors where there is installed capacity that is not being fully used would, on the contrary, permit increased returns, in macro-economic terms, from the scarce factor, capital, through the full utilization of that capacity.

³⁵ For the analysis in this section, the data used for imports are those of the ECLA sample, expressed in dollars at 1955

pared with an increase of only 66 per cent in the previous six years.

Imports of the corresponding industrial products increased relatively little, if the exceptional years 1951-52 are excluded. Between 1948 and 1961 the over-all growth of the quantum of such products was 14 per cent, as against over 40 per cent for the total import quantum. Thus it is clear that the substitution that took place was closely linked to expansion of the manufacturing industry, and that the ties became even stronger towards the end of the period.

The sectors in which the substitution process goes back furthest and has now reached a very advanced stage, are the traditional, or slow-growth industries. For nearly all these branches imports of the corresponding products are negligible in absolute terms, with the one exception of food products, which account for over half of the imports in this group as a whole and averaged over \$30 million a year for the period 1955-61.

Analysis of the quantum indexes in table 26-A shows that, as might be expected, the rate at which the slow-growth industries develop was lower than that of industry as a whole, although for most of them the tempo

prices and reclassified in accordance with the Brazilian industrial classification. For output the indices used were those for industrial production calculated by the Fundação Getulio Vargas, published in *Conjuntura Econômica*, February 1963. In the analysis the following industrial sectors were not included: wood products, furniture, clothing and footwear. This was not only because in some of these sectors output data are by no means reliable, but even more because the import data are not particularly revealing, since they refer to sectors in which substitution took place a long time ago. In the comparative analysis of the production and import indices the emphasis, generally speaking, is on 1955 and subsequent years, since it is only for that period that there are production data for the more dynamic industries and consequently comparison between the various sectors is possible.

towards the end of the period was satisfactory and even permitted import substitution to continue.

In the food industry production increased 49 per cent between the base year (1955) and 1961, while towards the end of the period imports were in the region of half the volume for 1955. The same is true of the hides and skins industry.

For the textile and tobacco industries the growth rate was similar, and in the last years of the period there was a sharp contraction in imports of the corresponding items, which fell to very low levels. This did not, however, reflect a special effort on the part of the domestic industries, since there is a large amount of idle capacity in the textile industry, and Brazil has always been a large producer (and even exporter) of tobacco products.

For the beverage industry, too, the main substitution effort was made some time ago. However, this industry stood out from the other traditional branches by being the only one in which output remained virtually stationary throughout the period, except for the last year. At the same time imports, which in 1955 had been reduced to a very low level, took an upturn.

The printing and publishing industry had a satisfactory tempo of development similar to that of the other slow-growth industries, and a reduction of over 20 per cent in imports was effected compared with the base year. However, this industry is the only one of the group for which the corresponding import quantum was higher in 1961 than in 1948. This is probably due not only to a marked increase in consumption, related to the increase in higher education, but also to a less forceful policy of import restriction. Even so, difficulties in the way of importing foreign books and publications, especially because of the high cost of foreign exchange, were sufficient to lead to the appearance in the last few

Table 26-A

BRAZIL: IMPORT AND PRODUCTION INDICES FOR THE MANUFACTURING INDUSTRIES
(1955 = 100)

Year	Slow-growth (traditional) industries													
	All manufacturing industries		Hides and skins and similar products		Textiles		Food products		Beverages		Tobacco		Printing and publishing	
	Imports	Production	Imports	Production	Imports	Production	Imports	Production	Imports	Production	Imports	Production	Imports	Production
1948	99.9	54.5	92.1	89.9	306.5	66.1	147.1	60.7	721.6	63.8	474.5	44.4	41.6	49.6
1949	98.2	60.3	126.5	91.9	320.8	71.0	72.0	68.4	254.8	71.4	322.1	51.6	44.8	48.7
1950	109.8	67.8	174.8	93.9	315.4	75.0	53.8	76.9	311.4	84.8	457.0	58.7	38.4	58.3
1951	181.9	71.9	247.8	100.0	509.3	72.6	86.7	79.5	652.4	101.1	630.3	69.0	60.0	71.3
1952	174.3	76.0	189.8	94.9	242.2	76.6	114.7	80.3	375.0	91.4	534.9	76.2	60.8	85.2
1953	103.5	82.6	82.5	101.0	161.9	80.6	62.7	85.5	208.2	95.2	308.7	79.4	76.1	87.0
1954	148.2	90.1	136.6	102.0	277.9	95.2	112.8	83.8	228.4	94.3	217.4	91.3	94.9	95.7
1955	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1956	94.7	106.6	103.6	111.1	125.1	100.0	84.4	88.9	151.9	87.6	308.7	105.6	104.7	104.3
1957	117.0	112.4	80.9	115.2	129.5	87.9	70.4	107.7	154.4	94.3	60.8	111.9	93.3	132.2
1958	111.5	131.4	63.5	126.3	61.2	117.7	46.7	118.8	143.6	102.9	143.5	120.6	60.9	121.7
1959	123.3	142.1	48.0	125.3	31.2	122.6	36.2	130.8	148.9	107.6	156.5	127.0	75.0	125.2
1960	119.7	163.6	52.7	139.4	18.2	133.9	50.7	138.5	177.1	104.8	78.3	131.0	80.0	136.5
1961	113.9	181.8	62.4	149.5	27.3	142.2	59.8	145.3	140.3	121.9	17.4	150.8	76.8	144.3

SOURCE: Production indices of the Fundação Getulio Vargas (FGV) and import indices given by the ECLA sample.

years of a number of publishing concerns devoted to the translation and publication of foreign technical books.

In brief, it can be concluded that the substitution process in the traditional industries has continued at a fairly active level during recent years, especially in view of the advanced stage it had already reached. In fact the growth rates of nearly all the industries in this group are higher than the growth rate of per capita income, which, generally speaking, is what may be expected of the slow-growth industries.³⁶

This is largely attributable to the markedly restrictive exchange policy adopted in relation to imports of non-essential products, which gave a strong impetus to con-

³⁶In view of the fact that their average income elasticity would not be higher than unity.

tinued import substitution in these sectors. Already in 1960 and 1961, when the exchange policy became less sharply selective, there was an increase in imports of products of nearly all the industrial groups considered, despite the standstill in the total import quantum.

Let us now examine the trends followed by the *dynamic industries*. In the case of the metallurgical industry, and the chemical and pharmaceutical industry, in which import substitution began some time ago, the growth rates of production in recent years are lower than for other industries in this group. The industries producing electrical equipment and transport equipment, and the metal-transforming industry, are of more recent establishment, and the available production indices, which date from 1955, show a rapid growth rate, particularly for metal-transforming (see table 26-B).

Table 26-B
BRAZIL: IMPORT AND PRODUCTION INDICES FOR THE MANUFACTURING INDUSTRIES
(1955 = 100)

Year	Dynamic industries										Intermediate industries					
	Metallurgy		Chemicals and pharmaceutical products		Metal-transforming		Electrical and communications equipment		Transport equipment (construction and assembly)		Non-metallic mineral manufacture		Paper and paperboard		Rubber	
	Im-ports	Produc-tion	Im-ports	Produc-tion	Im-ports	Produc-tion	Im-ports	Produc-tion	Im-ports	Produc-tion	Im-ports	Produc-tion	Im-ports	Produc-tion	Im-ports	Produc-tion
1948	72.4	45.9	63.7	21.4	97.5		122.3		222.3		155.2	47.3	41.2	56.1	11.6	49.6
1949	91.8	55.0	76.8	23.3	124.2		115.8		143.8		152.8	51.2	54.0	64.9	7.2	56.4
1950	94.5	69.7	92.7	26.3	149.8		118.0		158.6		157.0	55.8	73.2	74.6	6.7	65.8
1951	139.9	77.1	131.8	35.1	219.3		233.6		388.1		258.7	58.1	84.7	78.9	83.2	71.8
1952	133.5	80.7	124.8	32.1	239.9		201.2		330.1		292.8	64.3	87.1	78.9	116.0	76.9
1953	96.2	91.7	110.4	38.2	130.3		107.4		105.4		246.6	77.5	76.6	87.7	3.8	85.5
1954	182.0	99.1	151.1	42.7	163.3		134.0		130.4		136.0	93.0	118.2	94.7	86.1	97.4
1955	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1956	88.1	115.6	103.0	133.6	85.1	115.0	93.4	159.0	107.6	112.0	62.5	110.0	109.1	114.9	37.3	94.0
1957	118.3	107.3	87.8	136.3	139.5	110.0	101.4	156.0	207.3	249.0	66.1	109.3	134.2	108.8	72.3	98.3
1958	86.0	127.5	91.9	159.2	122.5	119.0	100.4	261.0	254.5	366.0	54.1	111.6	109.2	125.4	92.6	111.1
1959	126.3	143.1	86.7	163.7	122.1	—	95.2	313.0	325.7	530.0	59.2	123.3	108.6	132.5	161.0	131.6
1960	128.1	150.5	108.9	186.6	142.3	—	92.8	385.0	175.2	721.0	54.1	131.8	106.9	143.0	197.8	148.7
1961	132.1	167.0	96.3	205.3	150.0	—	139.5	477.0	95.9	800.0	96.8	141.1	93.9	155.3	205.0	146.2

SOURCE: Production indices of the Fundação Getulio Vargas (FGV) and import indices given by the ECLA sample.

The *metallurgical industry*, although expanding at a relatively satisfactory rate between 1955 and 1961, was unable to meet the growing demand for metal products entailed by the rapid expansion of other industrial sectors, and this led to a substantial increase in imports of these products in recent years.

The situation should be remedied to some extent once the recent additions to production capacity in the national steel industry begin to operate. Nevertheless, a more radical process of import substitution is called for, and will have to continue for a number of years, in the

metallurgy of both ferrous and non-ferrous metals. On the pace of import substitution in this sector largely depend the possibilities of pressing on with this process in a number of other sectors, in particular the metal-transforming industries, in order to avoid a considerable net increase in imports.

To evaluate the effective substitution that has taken place in the national steel industry, see the evolution of the import coefficients with respect to apparent consumption, given in table 27.

Table 27

BRAZIL: APPARENT CONSUMPTION OF ROLLED STEEL, 1950-61

(Tons)

Year	Bars and shapes	Wire	Rails and accessories	Plate	Sheet	Tin-plate	Welded tubes	Seamless tubes	Unspecified tubes	Total supply	Total consumption	Import coefficient (percentage)
1950												
Production	279 635	35 903	60 026	42 050	117 689	37 186				572 849		
Imports	24 909	112 324	5 611		27 346	48 369			45 747	264 306		
Total	304 544	148 227	65 637	42 050	145 035	85 555			45 747	836 795		
—Exports					4 201					4 201		
	304 544	148 227	65 637	42 050	140 834	85 555			45 747		832 594	31.7
1951												
Production	345 594	44 901	42 243	50 880	154 652	43 545				681 815		
Imports	48 474	144 506	5 972		34 782	93 924			46 996	374 654		
Total	394 068	189 407	42 215	50 880	189 434	137 469			46 996	1 056 469		
—Exports	18				542					560		
	394 050	189 407	48 215	50 880	188 892	137 469			46 996		1 055 909	35.5
1952												
Production	315 651	40 533	77 890	57 390	169 477	42 162				703 103		
Imports	46 873	112 885	9 309		79 747	73 107			50 493	372 414		
Total	362 524	153 418	87 199	57 390	249 224	115 269			50 493	1 075 517		
—Exports					2 724					2 724		
	362 524	153 418	87 199	57 390	246 500	115 269			50 493		1 072 793	34.7
1953												
Production	401 696	48 945	53 945	63 575	185 872	40 414				794 460		
Imports	23 259	51 637	7 650		36 686	64 148		65	25 510	208 955		
Total	424 955	100 595	61 595	63 575	222 558	104 562		65	25 510	1 003 415		
—Exports												
	424 955	100 595	61 595	63 575	222 558	104 562		65	25 510		1 003 415	20.8
1954												
Production	419 794	48 004	52 360	62 666	209 987	41 226				834 037		
Imports	192 725	164 510	8 596	11 528	104 029	114 094		60	56 754	652 296		
Total	612 519	212 514	60 956	74 194	314 016	155 320		60	56 754	1 486 333		
—Exports												
	612 519	212 514	60 956	74 194	314 016	155 320		60	56 754		1 486 333	43.9
1955												
Production	376 761	61 587	80 598	79 707	295 800	37 830				932 283		
Imports	83 733	90 396	23 523	2 405	47 970	72 018		80	19 239	332 364		
Total	460 494	151 983	104 121	82 112	343 770	109 848		80	19 239	1 271 647		
—Exports	11 851									11 851		
	448 643	151 983	104 121	82 112	343 770	109 848		80	19 239		1 259 796	26.4
1956												
Production	439 567	67 723	122 532	64 328	302 612	76 899				1 073 661		
Imports	21 538	82 368	5 764	102	31 880	94 637		94	10 970	247 353		
Total	461 105	150 091	128 296	64 430	334 492	171 536		94	10 970	1 321 014		
—Exports	2 724									2 724		
	458 381	150 091	128 296	64 430	334 492	171 536		94	10 970		1 318 290	18.8
1957												
Production	507 000	70 000	90 243	87 567	311 433	63 946				1 130 189		
Imports	25 858	94 112	82 326	328	46 604	109 237	1 795	6 182	21 038	387 480		
Total	532 858	164 112	172 569	87 895	358 037	173 183	1 795	6 182	21 038	1 517 669		
—Exports	3 110									3 110		
	529 748	164 112	172 569	87 895	358 037	173 183	1 795	6 181	21 038		1 514 559	25.6
1958												
Production	631 000	75 000	57 248	102 072	358 928	79 385				1 303 633		
Imports	25 547	29 381	75 029	196	39 583	33 051	45	2 890	7 123	212 845		
Total	656 547	104 381	132 277	102 268	398 511	112 436	45	2 890	7 123	1 516 478		
—Exports												
	656 547	104 381	132 277	102 268	398 511	112 436	45	2 890	7 123		1 516 478	14.0

Table 27 (continued)

Year	Bars and shapes	Wire	Rails and accessories	Plate	Sheet	Tin-plate	Welded tubes	Seamless tubes	Unspecified tubes	Total supply	Total consumption	Import coefficient (percentage)
1959												
Production	735 000	89 000	53 114	104 483	420 474	89 938				1 492 009		
Imports	52 465	39 372	240 998	25 015	80 494	58 108	697	1 048	6 573	594 770		
Total	787 465	128 372	294 112	129 498	500 968	148 046	697	1 048	6 573		1 996 779	25.3
—Exports	787 465	128 372	294 112	129 498	500 968	148 046	697	1 048	6 573	1 996 779		
1960												
Production	869 700	115 788	13 864	102 997	503 202	94 078	826	6 910		1 707 365		
Imports	36 655	64 299	141 660	7 925	85 009	85 274	127	662	12 871	434 482		
Total	906 355	180 087	155 524	110 922	588 211	179 352	953	7 572	12 871	2 141 847		
—Exports	16 827				1 349							
	889 528	180 087	155 524	110 922	586 862	179 352	953	7 572	12 871		2 123 671	20.5
1961												
Production	939 711	139 163	31 677	124 059	551 896	132 727	2 469	6 891		1 928 593		
Imports	59 916	62 019	42 819	11 143	100 759	40 262	8	488	13 304	330 718		
Total	999 627	201 182	74 496	135 202	652 655	172 989	2 477	7 379	13 304	2 259 311		
—Exports	7 745							275		8 020		
	991 882	201 182	74 496	135 202	652 655	172 989	2 477	7 104	13 304		2 251 291	14.7

SOURCES: ECLA, Banco Nacional do Desenvolvimento Economico (BNDE) and SEEF.

NOTE: In order to make the Latin American countries' import figures uniform wire manufactures (7.74.11, 7.74.22, 7.74.29) are included under wire, and tinplate manufactures (7439) under tinplate.

Data on the metallurgy of non-ferrous metals are less satisfactory, and could be obtained only for the five-year period 1955-60. Nevertheless they suffice to show the high degree of dependence on imports for the supply of these materials. The expansion of domestic production was insufficient to reduce the volume of imports, even for aluminium, which is the most developed sector of this industry, and was particularly unsatisfactory for copper and tin, even though tin had the lowest import coefficient in relation to apparent consumption.

BRAZIL: IMPORT COEFFICIENTS FOR NON-FERROUS METALS, 1955-60

	Total	Production	Imports	Import coefficient (percentage)
	(Tons)			
1955	82 687	7 271	75 416	91.2
1956	92 545	13 796	78 749	85.1
1957	115 178	19 384	95 794	83.2
1958	104 958	16 037	88 921	84.7
1959	100 635	24 473	76 162	75.7
1960	120 061	26 395	93 666	78.0

SOURCE: BNDE (Economic Department).

The industry manufacturing *chemicals and pharmaceutical products*, taken as a whole, expanded more rapidly than the metallurgical industry; for the six-year period 1955-61 the growth rate was in the region of 205 per cent, which is considerably higher than the rate for the manufacturing industries as a whole.

However, this higher growth rate is really due almost entirely to the inclusion in the group of the petroleum products industry. If the data for 1954 are compared with those for 1955, it is clear that output, which had been increasing at a moderate pace, rose suddenly by over 100 per cent, while imports fell by 50 per cent.

This coincided with the large-scale entry into operation of Petrobras.

The existing production series are not sufficient to permit a separate evaluation of the growth of the three main aggregates concerned, namely, the petroleum industry, the pharmaceutical industry and the remainder of the chemical industry.³⁷ Consequently the following paragraphs analyse the behaviour of some of the most significant products, though they belong only to the first and third of the above three sectors.

A study of the data available for the group as a whole, however, shows that the industry's over-all expansion was sufficient to stabilize imports for the period in question.

Tables 28 to 30 give some production and import data for caustic soda, chemical fertilizers and the petroleum industry. The import coefficients represent a very high proportion of total supply for the first two, despite the considerable efforts being made to raise domestic production both of caustic soda and other basic chemicals, and of fertilizers, particularly the nitrogenous kind. For the latter the import coefficient continues to be over 50 per cent of apparent consumption, despite Petrobras' recent entry into this branch of the petrochemical industry.

In the petroleum industry proper there has been a rapid expansion of petroleum-refining capacity and a considerable decline in the import coefficient in relation to total apparent consumption of liquid fuels, although substitution was much more intense in the case of motor spirit, and imports of fuel oil in 1960 still represent about 50 per cent of the total supply.

³⁷ For data on the production of chemicals in 1959-60 see the ECLA study *La industria química en América Latina* (E/CN.12/628/Rev.1).

As regards crude petroleum, however, despite the enormous efforts made the results merely sufficed to prevent a rise in imports in the last three years of the period under analysis. Although the import coefficient decreased in relation to total apparent consumption, it still remained very high (over 60 per cent).

Table 28

BRAZIL: PRODUCTION AND IMPORTS OF CAUSTIC SODA AND FERTILIZERS, 1956-60

Year	Apparent consumption	Production	Imports	Import coefficient
<i>Caustic soda (thousands of tons)</i>				
1956	175	47	128	73.1
1957	148	57	91	61.5
1958	148	60	88	59.5
1959	166	64	102	61.4
1960	170	69	101	59.4
<i>Fertilizers (tons)</i>				
1956	645 016	188 970	456 046	70.7
1957	716 596	230 177	486 419	67.9
1958	893 773	303 372	590 401	66.1
1959	894 230	509 295	384 935	43.0
1960	1 067 264	614 632	452 632	42.4

SOURCES: BNDE, Conselho do Desenvolvimento (CD), CNA and SEEF.

Table 29

BRAZIL: PRODUCTION, IMPORTS AND EXPORTS OF CRUDE PETROLEUM, 1950-60

(Tons)

Year	Apparent consumption	Production	Imports	Exports	Import coefficient (percentage)
1950	55 082	44 078	11 004		19.98
1951	109 667	90 063	19 604		17.88
1952	115 567	97 817	17 750		15.36
1953	149 783	119 400	30 383		20.28
1954	271 789	129 390	142 399		52.39
1955	3 776 671	263 615	3 513 056		93.02
1956	5 418 282	529 173	4 889 109		90.23
1957	6 163 772	1 317 655	4 846 117		78.62
1958	5 831 768	2 467 146	5 652 473	2 287 851	96.93
1959	7 350 374	3 075 648	5 742 162	1 467 436	78.12
1960	8 957 816	3 861 255	5 683 919	587 358	63.45

SOURCES: Petrobras and SEEF.

Table 30

BRAZIL: PRODUCTION AND IMPORTS OF LIQUID FUELS, 1948-60

(Thousands of litres)

Year	Apparent consumption	Production	Imports	Import coefficient (percentage)
1948	1 789 190	66	1 789 124	100.0
1949	4 129 467	74	4 129 393	100.0
1950	4 757 984	72	4 757 912	100.0
1951	5 734 132	135	5 742 997	100.0

Table 30 (continued)

Year	Apparent consumption	Production	Imports	Import coefficient (percentage)
1952	6 881 479	187	6 881 292	100.0
1953	7 300 678	277	7 300 401	100.0
1954	8 899 487	360 359	8 539 128	96.0
1955	9 265 613	3 786 346	5 479 267	59.1
1956	10 527 498	5 867 576	4 659 922	44.3
1957	10 325 644	6 561 588	3 764 956	36.5
1958	11 454 454	7 105 192	4 349 262	38.0
1959	11 455 032	7 837 880	3 617 152	31.6
1960	13 571 256	9 357 431	4 213 825	31.0

SOURCES: Petrobras and SEEF.

The *metal-transforming industry* is that for which the existing data are the least well prepared, and there are no satisfactory production indices available. Both the FGV and the BNDE have calculated production indices for 1955-58 only. Although the basic data used must have been the same (industrial surveys whose findings were published in *Produção Industrial Brasileira*), the series represent entirely different orders of magnitude, both for the metal-transforming industry and for the other groups. The BNDE indices are in general much higher. While the FGV puts forward a growth rate of only 19 per cent for the metal-transforming industry, BNDE gives a rate of 84 per cent for the period, over 50 per cent of the increase having taken place between 1955 and 1956.

Whatever the growth rate of the industry may have been, the results of import substitution, although satisfactory between 1949 and 1958 (see previous section), were plainly unsatisfactory for the final years of the period, since imports of the items concerned rose by 50 per cent during 1955-61.

This was due not so much to a shortage of production capacity in the industry (since there is idle capacity in a number of branches) as to the fact that the bulk of recent investment has been in imported capital goods. There are a number of reasons for this emphasis, of which the most significant seem to be, in increasing order of importance: (1) the specialized nature of some capital goods, which are not produced in Brazil; (2) the favourable exchange policy applied until recently; (3) the lack of internal financing for domestic equipment, which places it at a competitive disadvantage, despite high tariff protection; and (4) the fact that many of the relatively recent investments made consisted largely of foreign private capital associated with the firms that supplied the equipment.

Furthermore, the main problem in this sector, from the structural standpoint, seems to be a certain lack of complementarity, both technological and economic. Thus idle capacity in certain branches of the industry exists side by side with serious difficulties in other branches in meeting substantial orders for equipment within a reasonable time-limit.³⁸ This feature, in conjunction with

³⁸ One example of these difficulties was the installation of the Duque de Caxias refinery, for which only a part of the machinery and equipment needed could be supplied by Brazilian firms, and even then only after the formation of a veritable consortium.

the rather weak and ill-organized policy adopted towards the industry, makes it clear why the expansion problems of this sector are somewhat complex.³⁹

The possibility of continuing the import substitution process in Brazil through greater domestic production of capital goods will be discussed in broad outline in the final section of this study.

The industry manufacturing *electrical and communications equipment* had a fairly rapid growth rate during the period 1955-61. The increase in production was sufficient to meet the expansion in consumption without any increase in imports during those five years. In 1961, however, imports rose by over 40 per cent. This rise represented two separate factors: the first was an increase in imports of heavy machinery (generators, motors and transformers), this being the category in which there has been the least substitution thus far, and the second an increase in imports of electrical equipment for motor vehicle assembly.

The establishment of the motor vehicle industry was accompanied by intensive domestic manufacture of the supplementary machine parts, but a considerable part of the noble-metal electrical equipment still remains for substitution. Consequently the rapid expansion in the production of motor vehicles from 1959 on resulted in a sharp rise in imports of electrical components.

The two factors together accounted for an increase of \$30 million out of the total of \$85.5 million imported by this sector in 1961. In brief, it can be concluded that in the electrical equipment sector import substitution of some items, such as electrical appliances (especially household appliances) and light and medium equipment, is fairly advanced.

Import substitutions of heavy equipment is still at the initial stage, and prior to 1956 Brazil produced virtually no heavy electrical equipment.⁴⁰ On the other hand, there is already widespread substitution of electrical equipment for motor vehicle assembly, the only items that have not yet been replaced being a few very complex types of equipment, in this and other branches, that would have to be produced by a high-precision electronics industry of a type that does not yet exist in Brazil.

The construction and assembly of transport equipment has the highest growth rate in 1955-61 for the whole group of the dynamic industries—700 per cent in six years. This expansion was due mainly to the establishment of the motor vehicle industry, which underwent a fairly rapid vertical integration. As a result, the substantial increase in imports for 1952-59, representing imported parts for vehicle assembly, was sharply reversed from 1959 on, because of the vigorous expansion of the industry producing motor vehicle spare parts. The motor vehicle sector is now practically self-sufficient, since the import coefficient has been reduced to 1 per cent.

³⁹ A more exact idea of the problems facing the metal-transporting industry and its expansion prospects can be obtained from the ECLA studies on *The manufacture of industrial machinery and equipment in Latin America. I. Basic equipment in Brazil* (E/CN.12/619/Rev.1, United Nations publication, Sales No.: 1963.II.G.2), and *The machine-tools industry in Brazil* (ST/ECLA/CONF.11/L.32, United Nations publication, Sales No.: 1963.II.G.4).

⁴⁰ For information on present production, capacity and possibilities of expansion see *Basic equipment in Brazil*, op. cit.

BRAZIL: IMPORT COEFFICIENTS FOR MOTOR VEHICLES, 1949-61

	Apparent consumption	Production	Imports	Import coefficient (percentage)
	(Units)			
1949	30 640		30 640	100.0
1950	33 066		33 066	100.0
1951	81 447		81 447	100.0
1952	65 734		65 734	100.0
1953	18 511		18 511	100.0
1954	28 164		28 164	100.0
1955	7 400		7 400	100.0
1956	9 371		9 371	100.0
1957	52 554	30 700	21 854	41.6
1958	94 853	61 129	33 724	35.6
1959	135 434	96 243	39 191	28.9
1960	141 771	133 078	8 693	6.1
1961	147 393	145 674	1 719	1.1

SOURCES: *Anuário Estatístico* and *Anuário do Comércio Exterior*.

In the other transport equipment sectors the situation was less favourable. As regards railway equipment there are serious problems to solve, especially with respect to complementarity. In the shipbuilding sector, although there has recently been substantial progress in installing new and modern shipyards, problems exist that are similar to those in the equipment industry.

The behaviour of the *intermediate industries* is shown by the data in the third part of table 26-B. As regards the growth rate, this group lies between the slow-growth and the dynamic industries. Since 1955 the intermediate industries expanded at a slower rate than the manufacturing industries as a whole, whose average was raised considerably by the high growth rate of the dynamic industries.

The non-metallic mineral manufactures sector, although its growth rate was below that of the other two industries in this group, was the only sector where substitution increased throughout the period. Although expansion over the five-year period was only 32 per cent, imports fell by nearly 50 per cent. This was because the substitution process has now reached a very advanced stage in this sector, and even includes cement production, in which Brazil has been practically self-sufficient since 1957 (see table 31).

Table 31

BRAZIL: PRODUCTION, IMPORTS AND EXPORTS OF COMMON PORTLAND CEMENT
(Thousands of tons)

Year	Apparent consumption	Production	Imports	Exports	Import coefficient (percentage)
1949	1 709	1 281	428	—	25.0
1950	1 780	1 386	394	—	22.1
1951	2 079	1 441	638	—	30.7
1952	2 426	1 614	812	—	33.5
1953	3 023	2 041	982	—	32.5
1954	2 750	2 418	332	—	12.1
1955	2 976	2 734	242	—	8.1
1956	3 308	3 278	31	1	1.0
1957	3 382	3 376	9	3	0.1
1958	3 767	3 769	—	2	—
1959	3 824	3 798	29	3	0.1
1960	4 418	4 418	0	0	—
		4 678			

SOURCE: Cement Producers' Association.

In 1961 there was a substantial increase in the import quantum for the group, due entirely to large imports of refractory materials for furnace construction. As the level of imports was already very low (only \$7 million in 1960), imports of \$5 million worth of these materials were sufficient to raise the index sharply. In fact, this is one of the industrial sectors in which the substitution process has gone furthest; as indicated in the preceding section, the import coefficient in terms of total supply was one of the two lowest for the whole of that manufacturing sector.

The *paper and paperboard* industry as a whole succeeded in meeting the increase in consumption, without any increase in imports being required, except for 1957, when production fell. However, the substitution process in the industry covered two separate items, newsprint and paper other than newsprint. As table 33 shows, substitution of the second item began early; even in 1949 the import coefficient was only 2.8 per cent, and in recent years it has been in the neighbourhood of 1 per

cent, whereas for newsprint the coefficient increased from 37 per cent in 1949 to 65 per cent in 1957. Only after that year production, which had remained more or less constant since 1951 at the level of about 100 000 tons, began to increase, and in 1960 amounted to about 150 000 tons. Even so, in 1960, when apparent consumption of both types of paper was practically the same—about 330 000 tons—output of newsprint was less than half that of other paper, whereas imports were thirty times as much (of 190 000 tons of paper imported in 1960, about 185 000 were newsprint).

In sum, the paper industry still has far to go in substitution of newsprint, as the expansion in production has not been sufficient to meet the increase in consumption. Although the import coefficient has fallen in recent years it is still high (50 per cent). The present difficulties, particularly as regards printing paper, seem to be mainly technological. However, it should be noted that the substitution already effected has been of an integrated nature, since there has also been considerable substitution in the production of pulp, as shown below.

Table 32

BRAZIL: PRODUCTION AND IMPORTS OF NEWSPRINT AND OTHER PAPER, 1937-38 AND 1948-60
(Tons)

Year	All paper				Newsprint				Paper other than newsprint			
	Apparent consumption	Production	Imports	Import coefficient (percentage)	Apparent consumption	Production	Imports	Import coefficient (percentage)	Apparent consumption	Production	Imports	Import coefficient (percentage)
1937	170 245	102 831	67 414	39.6								
1938	156 830	106 702	60 128	32.0								
1948	248 772	186 957	61 815	24.9		67 350				119 607		
1949	267 919	216 544	51 375	19.2	126 815	79 441	47 374	37.4	141 104	137 103	4 001	2.8
1950	316 802	247 894	68 908	21.8	151 754	87 142	64 612	42.6	165 048	160 752	4 296	2.6
1951	352 330	261 045	91 285	26.0	176 551	91 220	85 331	48.3	175 779	169 825	5 954	3.4
1952	378 342	261 883	116 459	30.8	196 925	86 866	110 059	55.9	181 417	175 017	6 400	3.5
1953	403 641	291 414	112 227	27.8	205 164	94 679	110 485	53.9	198 477	196 735	1 742	0.9
1954	457 988	314 286	143 702	31.4	231 243	91 592	139 651	60.4	227 187	222 694	4 493	2.0
1955	479 660	333 149	146 511	30.5	242 601	99 392	143 209	59.0	237 059	233 757	3 302	1.4
1956	545 841	380 537	165 304	30.3	265 975	104 745	161 230	60.6	279 866	275 792	4 074	1.5
1957	572 977	362 646	210 331	36.7	316 331	110 701	205 630	65.0	256 646	251 945	4 701	1.8
1958	591 178	416 471	174 707	29.6	308 248	136 895	171 353	55.6	282 930	279 576	3 354	1.2
1959	609 592	439 900	169 692	7.8	308 642	140 038	168 604	54.6	300 950	299 861	1 088	0.4
1960	664 757	474 383	190 374	28.6	335 237	150 744	184 493	45.0	329 520	323 639	5 881	1.8

SOURCES: ANFP and SEEF.

Table 33

BRAZIL: PRODUCTION AND IMPORTS OF RUBBER AND PROCESSED RUBBER, 1955-61

Year	Apparent consumption	Production	Imports	Import coefficient (percentage)	Year	Apparent consumption	Production	Imports	Import coefficient (percentage)
<i>Motor vehicle tires (units)</i>					<i>Processed rubber (tons)</i>				
1955	2 188 120	2 185 295	2 825	0.13	1956	14 627	7 266	7 361	50.3
1956	1 921 472	1 918 779	2 693	0.14	1957	23 939	7 781	15 158	63.3
1957	1 988 195	1 985 195	3 000	0.15	1958	29 037	9 602	19 435	66.9
1958	2 147 135	2 140 582	6 553	0.31	1959	34 943	...
1959	2 746 884	2 742 794	4 090	0.15	1960	43 325	...
1960	3 255 111	3 252 515	2 596	0.08	1961	42 529	...

SOURCES: *Anuário Estatístico do Brasil* and SEEF.

BRAZIL: IMPORT COEFFICIENTS FOR CHEMICAL PULP FOR THE PAPER AND PAPERBOARD INDUSTRY, 1956-60

	Apparent consumption	Production	Imports	Import coefficient
	(Thousands of tons)			(percentage)
1956	190	74	116	61
1957	204	100	104	51
1958	215	120	95	44
1959	250	162	88	35
1960	291	210	81	28

SOURCE: SEEF of the Ministry of Finance.

In the rubber industry output remained unchanged for a number of years up to 1958. From then on there was a fairly satisfactory increase in output in response to the rise of the motor vehicle industry, sufficient to meet the expansion in the consumption of rubber manufactures, especially tires. As table 33 shows, for tires the substitution process has practically been completed.

As regards production of processed rubber, however, the expansion was quite inadequate to meet the growing demand of the rubber manufacturing sector itself; this is clear from the considerable increase in imports of these products, which account for practically all the imports in this group.

BRAZIL: IMPORTS OF RUBBER PRODUCTS, 1953-61
(Thousands of 1955 dollars)

Years	Total	Processed rubber
1953	757	193
1954	16 951	15 789
1955	19 685	18 650
1956	7 347	6 532
1957	14 240	13 451
1958	18 231	17 246
1959	31 696	31 008
1960	38 947	38 447
1961	40 358	37 562

SOURCE: ECLA sample.

Although the production data available for rubber processing are very scanty and relate to only three years, they show that not only is the import coefficient in terms of apparent consumption very high, but there is a rising trend (see again table 33). This trend was strengthened, after 1958, by a sharp increase in imports.

The unsatisfactory situation of the rubber industry as regards processing originated in the stagnation of production of natural rubber, which since 1943 has been in the region of 130 000 tons. This stagnation followed a period in the early years of the century when Brazil was one of the main world producers and exporters of rubber. Only when the motor vehicle industry was founded was there a new effort to expand production of this item in Brazil. Even so, the firms producing tires took over the bulk of the new plantation, especially in São Paulo and Bahia. The Amazon basin, the original source of natural rubber, did not succeed in taking advantage of this new development to achieve

a more dynamic economy, this time on a permanent basis.

In recent times there has been additional substitution activity in the form of installation of a synthetic rubber plant by Petrobras, but although the continuing expansion of consumption opens up new opportunities for import substitution, it does not seem likely that they will be on a scale to permit an appreciable reduction of rubber imports in the next few years.⁴¹

In short, while the data on industrial production have been fairly unsatisfactory since 1958, trends in the manufacturing industry, including the traditional industries, may be said to have been relatively favourable up to 1961.

However, the structural difficulties besetting some sectors, such as the metal-transforming industry in general and the heavy equipment industry in particular, together with the progressive saturation of the markets for these industrial sectors which have until now been the most dynamic (durable consumer goods), point to a loss of momentum in the manufactures industry, and this seems in fact to have been taking place since 1962.⁴²

Thus, while the past model of development through import substitution may have played a reasonably useful part in the diversification and expansion of Brazil's industrial activity in its various stages, the dynamic impulse to proceed with industrialization by this method seems to have been virtually exhausted. The chief arguments in this connexion will be summed up in the following chapter on conclusions and prospects.

E. CONCLUSIONS

The purpose of the final observations is to summarize and systematize as far as possible the economic arguments which provide an explanation of why the import substitution process not only made such rapid headway in Brazil, but was also accompanied by growth rates exceeding those for Latin America as a whole; this recapitulation will be followed by comments on the main problems characteristic of the kind of economic structure imposed on the country by its past development model.

1. Growth factors of the import substitution process

It has already been noted briefly, in the introduction to the section of Brazil, some of the internal and external conditions which placed the country in a more favourable position than many others in the region to take advantage of the import substitution process as a development model.

It would seem at first sight that other Latin American countries which had, and still have, a higher import coefficient were better placed to achieve a rapid growth rate by means of substitution. However, the conditions favouring such growth in fact depend essentially on two basic prerequisites. Firstly, the volume and structure of imports should represent a sufficiently ample potential market to warrant the establishment of a number of substitution industries. Secondly, the existing

⁴¹ See the projections in *Plano Trienal de Desenvolvimento Econômico e Social do Brasil 1963-1965*.

⁴² See the provisional data published in *Conjuntura Econômica*, February 1963.

degree of diversification of production capacity in the economic system should already be sufficient to permit a satisfactory reaction to the impetus provided by the external bottleneck.

In other words, the impetus to the industrial sector resulting from a contraction of the import coefficient depends far less on the relative importance of the external sector than on the absolute size of the domestic market and on its structure, and on the possibilities of taking advantage of it.

In Brazil these two conditions were comparatively favourable, which disposes of any hypothesis that in this respect Brazil was at a disadvantage compared with the other Latin American countries.

To express the problem in more systematic terms, there appear to be two groups of factors, internal and external, that suffice to explain the phenomenon.

Some of the internal factors have already been referred to, and include the relative size and structure of the market, and the degree of diversification of the structure of production achieved within the traditional export model. The other factors include the concentration of the dynamic sectors of both development models in the same area, the relative availability of factors of production (especially an abundance of land and labour) and the economic policy pursued.

The above-mentioned factors are clearly heterogeneous and some of them represent various facets of a single phenomenon; nevertheless, they all help to explain the success of Brazil's import substitution model.

From the standpoint of launching the industrialization process, the first two of the above-listed factors were clearly decisive, and their importance is attributable to the past evolution of Brazil's coffee economy. This evolution led to an extraordinary concentration of the most profitable economic activities in the Centro-Sur region; the result was a cumulative process of expansion and diversification which, at the time of the crisis in the export sector,⁴³ made it easier to progress to another type of development than in several other Latin American countries.

Although Brazil's per capita income and consumption of primary industrial products were and still are, lower than those of other large Latin American countries, its absolute levels are usually higher (see table 34). Consequently, the size of its domestic market was and still is relatively more favourable for industrialization, particularly in view of its concentration.

The market structure was largely similar to that of the other Latin American countries as regards the diversification of demand of the high-income sectors, but in the industrial consumer goods sector domestic production capacity could meet requirements to a much greater extent than in most of the other countries in the region.⁴⁴

⁴³ See Celso Furtado, *Formação Econômica do Brasil*, especially the chapter comparing the coffee and sugar economies from the standpoint of the generation and distribution of monetary income.

⁴⁴ See table 6, which contains data on import structure.

Table 34

SOME SIGNIFICANT INDICES OF THE SIZE OF THE MARKET IN SELECTED LATIN AMERICAN COUNTRIES, 1960

Country	Consumption of five intermediate industry products															
	Income		Imports		Electric power		Crude steel		Cement		Sulphuric acid		Caustic soda		Petroleum and petroleum products	
	Total (Millions of 1950 dollars)	Per capita (1950 dollars)	Total (Millions of 1950 dollars)	Per capita (1950 dollars)	Total (Millions of kWh)	Per capita (kWh)	Total (thousands of tons)	Per capita (kg)	Total (thousands of tons)	Per capita (kg)	Total (thousands of tons)	Per capita (kg)	Total (thousands of tons)	Per capita (kg)	Total (thousands of tons)	Per capita (kg)
Argentina	11 327	539	1 148	55	22 449	1 069	1 680	80	2 646	126	168	8	63	3	14 826	706
Brazil	17 466	250	1 715	24	26 040	372	3 010	43	4 760	68	210	3	210	3	13 720	196
Chile	2 503	313	449	56	7 064	883	408	51	880	110	80	10	16	2	1 944	243
Mexico	9 179	262	1 044	30	35 420	1 012	1 575	45	3 185	91	350	10	105	3	16 625	475

SOURCE: ECLA, *The economic development of Latin America in the post-war period* (E/CN.12/659 and Add.1), and OAS, *Economic and social survey of Latin America, 1961* (documents 5-A, 5-B and 5-C).

Moreover, the existence of a more diversified production structure, especially in the secondary sector, served as a basis for the subsequent import substitution process, providing the first links in the chain of progressive diversification which were to make possible the vertical integration of the production machinery.

However, these two factors, which largely account for the industrialization that followed the onset of the crisis in the export sector, are not essentially different from those which determined the emergence of the same phenomenon in the other leading Latin American countries. The feature peculiar to Brazil, which was highly favourable to the internal dynamics of the process, was that in both development models the dynamic sectors

(the export sector in the traditional model and the secondary sector in the import substitution model) were concentrated in the same geographical area.

Such concentration can be explained by a concatenation of past factors which caused the decisive elements of an industrialization process—the market, external economies provided by an already developed tertiary sector, and entrepreneurial capacity—to be located in the same geographical area. It should also be noted that this geographical concentration played an important part in the development that took place following the Depression of the thirties.

At the time of the coffee crisis, despite vigorous defensive measures of government policy, investment in

the export sector obviously lost its attraction. This had the result of freeing resources, especially financial resources, whose easy transfer to the industrial sector was naturally facilitated by the existence in the same economic area of the three factors referred to in the previous paragraph. During the post-war period of industrial development, certain social and political developments resulting from the geographical grouping also contributed to the transfer to the industrial sector of the increased income of the coffee sector due to the rise in world prices, through an exchange policy clearly favouring industries in the area. Furthermore, the proximity of Rio de Janeiro, Brazil's largest consumer centre and the then seat of the Federal Government, led to the formation of an economic axis that progressively transformed the Centro-Sur region into a concentrated centre of economic activity.

From a strictly economic viewpoint, the causes of the high rates of return obtained by industrial entrepreneurs, which were a powerful stimulus to capitalization in the sector, can be summarized as the large (and geographically concentrated) potential market for import substitution, the elastic supply of little-organized labour, and the extensive privileges accorded by government economic policy.

With respect to the availability of factors of production, the relative abundance of manpower and land made it possible to increase the area under cultivation, which explains how industrialization could take place without a parallel effort to increase productivity in the food production sector.

As regards the Federal Government's economic policy, it must not be forgotten that, as noted in the introduction, the capitalization process, concentrated in the industrial sector and in the most developed area, was greatly helped, especially in the post-war period, by the substantial incentives to import substitution provided by exchange and financial measures and by the Federal Government's own investment policy.

Accordingly, this combination of internal factors can be regarded as having strongly favoured the development of Brazil's economy within the new model, and in itself is sufficient explanation of the fact that development was more rapid than in most of the other countries in Latin America and in the other under-developed areas of the world.

Examination of the behaviour of the external variables referred to in section II. B of the present study showed that to a certain extent they, too, favoured the growth of industrialization until comparatively recently.

In fact, although restrictions in the external sector may be responsible for generating strains and disequilibria in some sectors of the economy, they constitute the spur to achieving the structural changes required by an import substitution process. The whole problem, as we have seen in the theoretical part of this study, lies in the fact that the restrictions in absolute terms should not last too long, so that the economy can advance through successive stages of diversification. Thus the theory can be advanced that each period of increasing restrictions in the external sector should be followed by a period of relaxation to facilitate the transition to the next stage.

In Brazil, the behaviour of external conditions was of a cyclical nature that, generally speaking, followed such a pattern, although the trend was naturally towards a sharp reduction in the import coefficient. In the immediate post-war period the purchasing power of exports, as we have seen, recovered considerably, and this was followed by a phase of marked improvement in the terms of trade up to 1954. Even in 1955-60, when the relative situation of the external sector again deteriorated, it was possible to maintain the absolute level of imports and even to raise it slightly, although at the cost of considerably increasing the external debt. In addition, there was an appreciable increase in direct foreign investment,⁴⁵ whose significance was mainly qualitative. The outstanding aspect of the inflow of foreign capital for the expansion and diversification of industry was not so much its volume as its orientation; that is, it was channelled, in the case of public capital, into strategic sectors of the economy, and in the case of private capital, into the sectors where the import substitution prospects were most promising.

In short, it can be asserted that in the recent period of development both the internal and external variables operated in favour of the import substitution process, thereby leading to an acceleration of industrial activities capable of increasing the growth rate of the economy as a whole.

2. Characteristics of the social and economic structure resulting from the import substitution model

Notwithstanding the relatively high growth rate attained by Brazil's economy in the last few years and the degree of diversification achieved by its industrial sector, the economic development process presents an essential imbalance at three converging levels, the sectoral, regional and social.

From the sectoral point of view, attention was focused on the secondary sector, in particular the manufacturing industries; the tertiary sector, although benefiting from a series of infrastructural investments in transport and power, had only a moderate growth rate in the post-war period, especially in some sectors covering services and public administration, which in many ways are out of date.

The structure of the agricultural sector, on the other hand, has remained unchanged, at least in over-all terms, although agricultural production has expanded at a reasonable rate, especially in recent years.

Agricultural growth between 1950 and 1960 is actually due less to an average increase in crop yields than to an increase in the area under cultivation.⁴⁶ Such extension of the land under cultivation, prompted by the expansion of the urban market, was based essentially on the existing production functions, that is, without the absorption of technological progress that took place in the secondary sector.

⁴⁵ See *External financing in the economic development of Latin America* (E/CN.12/649), table III-21. In 1955-60 there was an increase of \$400 million in direct foreign investment compared with the previous five-year period.

⁴⁶ The reverse is true of Mexico, for example, where there was a considerable increase in yields over the past decade (see table 35).

Table 35

BRAZIL AND MEXICO: CROP YIELDS OF SELECTED AGRICULTURAL COMMODITIES, 1940-58

(Kilogrammes per hectare)

Year	Maize	Beans	Wheat	Rice	Cotton
<i>Brazil</i>					
1940	1 249	784	506	1 514	648
1950	1 287	690	816	1 638	443
1951	1 309	692	584	1 618	400
1952	1 214	626	852	1 565	496
1953	1 169	695	848	1 483	429
1954	1 228	702	806	1 388	469
1955	1 190	662	921	1 488	490
1956	1 167	611	967	1 366	448
1957	1 274	681	677	1 635	425
1958	1 273	684	407	1 523	423
<i>Mexico</i>					
1940	491	152	772	1 751	258
1950	721	258	911	1 759	342
1951	773	248	877	1 728	326
1952	756	253	863	1 832	337
1953	766	305	1 020	1 616	363
1954	854	361	1 098	1 888	424
1955	836	377	1 063	2 192	480
1956	803	322	1 326	2 038	487
1957	835	356	1 437	2 044	522
1958	812	364	1 592	2 079	504

SOURCE: For Brazil, *Anuário Estatístico do Brasil*; for Mexico, the Agricultural Economics Department.

That is why real productivity per person employed in agriculture has remained at a consistently low level. By contrast, as may be seen in the following table, industrial productivity doubled during the same period.

BRAZIL: REAL PRODUCTIVITY OF LABOUR EMPLOYED IN AGRICULTURE AND INDUSTRY

(Values in cruzeiros at 1949 prices)

Years	Real product (thousands of millions of cruzeiros)	Workers employed (number of persons)	Product generated per person employed (thousands of cruzeiros)
<i>Agriculture</i>			
1950	51.3	10 996 834	4.7
1960	77.9	15 521 701	5.0
<i>Industry</i>			
1950	44.3	1 177 644	37.6
1960	105.9	1 519 711	69.7

SOURCE: *Cuentas Nacionales* of the Getulio Vargas Foundation, and population censuses.

Consequently, the population shift from rural to urban areas that can be inferred from the population census data, does not have the same meaning in Brazil as in certain past growth models of the now developed countries, or as in Lewis' theoretical two-sector model.

What seems to have occurred is simply a migration of the unemployed from the country to the town in search of better opportunities, resulting in an enormous expansion of the large urban centres, together with a parallel increase in the marginal population groups in which disguised unemployment is rife.

However, in the industrial sector itself, where there has been a notable increase in productivity and diversification, the stage of development reached is by no means well-balanced.

As the expansion of the industrial sector has been disorganized, the process has been marked throughout by a series of defects in synchronization that were and still are the cause of certain serious bottlenecks, especially in the infrastructure sectors; and even the manufacturing industry is lacking to some degree in technological and economic complementarity. Thus, for example, while most of the industries producing end goods have excess production capacity—especially the textile industry, the industry producing electric household appliances, the transport material industry, and even the light equipment industry—other industries suffer from a shortage of installed capacity, especially the industries producing intermediate goods, such as the basic metallurgical and chemical industries, and the rubber and paper industries.

Furthermore, although the diversification of the industrial sector in Brazil is much greater than in any other Latin American country, the per capita output of most of the intermediate product industries was lower in 1959/60 than in a number of other industrialized countries in Latin America, and in the cement, sulphuric acid and petroleum products industries it was lower than the average for the region as a whole (see table 36).

It is true that the absolute output figures are generally higher than for any other South American country (see table 37). Consequently the per capita figures serve to show, not so much the degree of development attained by the basic industries, since the average is reduced when related to the total population of the country, as the fact that large sectors of the population live in very under-developed areas and are more or less excluded from the transformation that has taken place in the Centro-Sur region. In other words, these indices are particularly suitable as indicators of another type of disequilibrium from which the Brazilian economy suffers, that is, its regional disequilibrium.

The increase in regional disequilibrium reflects a natural tendency for economic activity to concentrate round the region that represents the nucleus of the system, and this tendency is increased by an economic policy of industrial incentives that in practice amounts to a transfer of income from the less developed to the more developed areas.

In recent times this economic policy trend has been modified (especially as regards exchange policy), and the deliberate aim is now, on the contrary, to correct the inequalities that exist, especially in the Nordeste region; however, the two main industrial States in Brazil (Guanabara and São Paulo) still generate about 50 per cent of the national income, although their population represents only 25 per cent of the total.

Table 36

PER CAPITA OUTPUT OF SIX INTERMEDIATE PRODUCTS IN SELECTED LATIN AMERICAN COUNTRIES, 1961
(Kilogrammes per capita)

Countries	Crude steel	Cement	Paper and paperboard	Sulphuric acid ^a	Caustic soda ^a	Petroleum products
Argentina	20	135	17	8	2	618
Brazil	38	69	9	3	1	178
Chile	56	112	14	10	1	205
Colombia	12	108	4	2	2	255
Mexico	47	88	12	7	2	482
Peru	6	58	5	2	0	216
Uruguay	3	154	14	—	0	531
Venezuela	8	205	8	1	0	6 811
Latin America ^b	26	86	9	4	1	286 ^c

SOURCES: OAS, *Economic and social survey of Latin America, 1961* (documents 5-A, 5-B and 5-C).

^a 1960 data.

^b Average for all the Latin America countries.

^c Excluding Venezuela.

Table 37

OUTPUT OF SIX INTERMEDIATE PRODUCTS IN SELECTED LATIN AMERICAN COUNTRIES
(Thousands of tons)

Country	Crude steel		Cement		Paper and paperboard		Sulphuric acid		Caustic soda		Petroleum products	
	1951	1961	1957	1961	1951	1961	1955	1960	1955	1960	1950	1961
Argentina	132	442	1 543	2 880	231	370	100	160	28	44	6 389	13 218
Brazil	843	2 493	1 456	4 688	326	639	121	200	28	80	71	11 998
Chile	184	391	673	873	46	131	40	75	4	6	—	1 601
Colombia	6	192	648	1 565	10	58	10	26	12	25	1 253	3 689
Mexico	473	1 682	1 535	3 160	190	422	126	249	24	66	8 056	17 130
Peru	—	75	368	621	22	55	15	25	1	3	1 628	2 320
Uruguay	13	9	293	460	25	40	—	—	—	—	780	1 480
Venezuela	—	71	621	1 543	9	60	3	7	0	3	13 377	51 250
Latin America (total)	1 651	5 369	7 895	17 332	897	1 874	451	782	98	228	32 120	107 286

SOURCE: OAS, *Economic and social survey of Latin America, 1961* (documents 5-A, 5-B and 5-C).

Since 1955 there seems to have been a reversal of the trend towards an accentuation of regional inequalities, since the data on the income of the Centro-Sur region indicate that that region's predominance has weakened slightly in favour of the Norte and Nordeste regions.⁴⁷

In fact this is due less to a reduction in industrial concentration in the most developed region than to an increase in the contribution to the national income of Brazil of the agriculture of the less developed states.⁴⁸ In the light of the relative importance of the industrial sector in the former group of States, this development may be attributable to the improvement in the terms of trade of agricultural as against industrial products that has taken place in recent years.

Consideration will now be given to the problem of social disequilibrium, which in the final analysis is merely a new aspect of the severe economic disequilibrium that has already been discussed from a number of different angles.

⁴⁷ See *Plano Trienal de Desenvolvimento Econômico e Social do Brasil 1963-65*, table XXVI.

⁴⁸ See *Contas Nacionais*, published by the Getulio Vargas Foundation.

The social imbalances appear to have worsened during the recent process of development, to judge by various indicators, including the increase in the marginal populations in the cities and the gap between the income of those employed in the most backward sector—the primary—and those employed in the most developed sector—the secondary. This increase in social disequilibrium derives largely from the inability of the dynamic sectors to create employment opportunities at a pace sufficient to absorb the growing masses of population in the economically active age groups.

As the growth rate of the industrial sector was considerably higher than that of the agricultural sector, the difference in productivity between the two could have been reduced if the absorption of manpower in industry had been considerably higher than in agriculture. But this was not the case, at least in recent times. According to the 1950 and 1960 census data the population employed in agriculture increased more rapidly between those dates than that employed in industry (sharply reversing the trend of the previous decade), and this factor alone would suffice to magnify the differences in labour productivity (see table 38).

Table 38

BRAZIL: NUMBER EMPLOYED IN AGRICULTURE AND IN INDUSTRY, 1940, 1950 AND 1960

Year	Industry			Agriculture	
	Total	Monthly average	Percentage increase in the decade	Total	Percentage increase in the decade
1940	960 663	...	—	10 159 545	—
1950	1 522 844	1 177 644	+58	10 996 834	+8
1960	...	1 519 711 ^a	+29	15 521 701	+41

SOURCE: 1940, 1950 and 1960 censuses.

^a As the data were not available for the whole of 1960, the monthly data published were used.

Furthermore, to judge by the data on employment in the most dynamic sector, which was the manufacturing industry, the situation continued to deteriorate. In 1954-58, when there was an increase in the growth of manufacturing which permitted an annual average rate of 9.7 per cent, employment increased at an annual rate of only 0.2 per cent.⁴⁹ In fact the only industry in which employment increased at a rate higher than that of demographic growth was the metallurgical industry.⁵⁰ In the textile, food, wood products and chemical industries employment declined in absolute figures during the period, although production continued to expand vigorously.

Another indication that demonstrates the inability of the high-productivity sector to absorb manpower at an increasing rate is the decrease in the ratio of wages to value added in the manufacturing industry between 1953 and 1958, as shown in the table below, despite the increase in real wages during the same period.

BRAZIL: RATIO OF WAGES TO VALUE ADDED IN MANUFACTURING, 1938-58

(Millions of cruzeiros)

Year	Value added	Wages and salaries	Ratio
1939	6 420	1 848	29
1949	47 575	13 485	28
1953	89 898	28 679	32
1958	319 592	95 224	30

SOURCE: *The growth of world industry*, op. cit.

Any of the above facts is easily explained by the observations made in the first part of this study, in the section on the dynamics of the import substitution process; in particular they reflect the fact that industrialization was progressively including types of production that by their very nature are capital intensive, and the effect was sometimes magnified by the introduction of labour-saving techniques in replacing equipment in the traditional industries with the aim of increasing returns.

Another fact that can be regarded as an indicator of social imbalance within the same highly developed re-

⁴⁹ See *The growth of world industry 1938-1961* (ST/STAT/SER.P/2, United Nations publication, Sales No.: 63.XVII.5).⁵⁰ And probably the metal transforming industry, for which no data are available.

gion is the economic concentration in the industrial sector, which is also the result of the internal dynamics of the process. To give an idea of the degree of monopoly attained in the market structure of the most dynamic sectors, it will suffice to note that in most of the branches of the metal-transforming and metallurgical industries in São Paulo, the bulk of the output in each branch is produced by only three enterprises, as shown by the following table:

Branch of activity	Number of enterprises	Proportion of output produced by the three largest enterprises (percentage)
Metal structures	8	78
Agricultural implements	9	97
Ploughs	17	76
Electric motors	9	86
Refrigerators	8	91
Washing machines	6	82
Scales	19	74
Lifts	6	99

SOURCE: *Dirigente Industrial*, July 1963.

In conclusion, it should not be forgotten that the regular programmes of social welfare carried out by the public sector in the fields of health and education have also helped to confirm this tendency to disequilibrium inherent in the import substitution model of economic development. To mention only the most obvious example, most of what are termed social investments have had practically no impact on the mass of the rural population.

All the foregoing observations point to the conclusion that the effect of the recent development model has been to transform the Brazilian economy into one of the most perfect examples of dual economy to be found in all Latin America.

This duality can be described, from the structural standpoint, as involving the existence of a dynamic capitalist sector, that expands rapidly, absorbs relatively little manpower, and has a comparatively high level of productivity, side by side with an under-developed sector in which is found the bulk of the population and which is to all intents and purposes excluded from the development process. The seriousness of this problem lies in the fact that not only do absolute differences in productivity between the two sectors exist, but that these differences have tended to increase as development proceeds.

From the standpoint of the personal distribution of income this system has given rise to a pyramid in which, on the assumption that the structure of distribution is similar to the average for Latin America, 5 or 6 per cent of the population receive about 35 per cent of the national income, nearly 50 per cent of the population receive only 17 per cent of the total, and the remaining 45 per cent receive an income close to the general average.⁵¹

⁵¹ As no data are available on the distribution of income in Brazil, the following distribution has been assumed, which does not appear wholly unreasonable, since the indices reflect a social and economic structure not very different from the Latin American average.

BRAZIL: HYPOTHETICAL INCOME DISTRIBUTION IN 1960

Category	Percentage of the population	Number of persons (millions)	Per capita income ^a (dollars)	Total income (thousands of millions of dollars)
I	50	35.0	100	3.5
II	45	31.5	325	10.5
III	3	2.1	1 430	3.0
IV	2	1.4	2 850	4.0
TOTAL	100	70.0	300	21.0

^a The figures in this column are calculated on the assumption that the income for each category is the same as that calculated for Latin America as a whole (see table 114 in document E/CN.12/659/Add.1) and on the basis of the per capita income of Brazil shown in the *Plano Trienal de Desenvolvimento Econômico e Social do Brasil 1963-65*.

The apex of the pyramid represents the large consumer market for the "capitalist sector" of the structure of production, whose purchasing power was sufficient even to ensure a market for durable consumer goods. The intermediate layers represent that portion of the population which is on the fringe of the group that centres round the dynamic pole, and whose average income approximates the average for Brazil. Since this average is very low, it does not represent any considerable purchasing power except for industrial products for mass consumption. Lastly, the base of the pyramid represents half the population, which is more or less excluded from the capitalist market.

To use the pyramid metaphor, which seems a clear means of conveying the requisite impression, the aggravation of the structural duality of the Brazilian economy could be visualized in terms of the development of a series of pyramids whose upper strata represent the "capitalist sector" and whose base corresponds to the "under-developed sector". During the initial phase of a given import substitution process, the apex is gradually enlarged as a result of the expansion and diversification engendered by an industrialization process "in breadth", and even if the structure of production in the less developed sector remains very much the same, the population groups at the base of the triangle have some measure of access to the dynamic sector, whose production functions absorb manpower.⁵² But as industrialization becomes more concentrated with the advance towards increasingly capital-intensive levels, while the structure of the primary sector continues unchanged, the shift from one sector to another no longer takes place, and the apex of the pyramid tends to become cut off from the base. This is what seems, in the light of the data presented above, to have happened in the Brazilian economy during the past decade.

The recent acceleration of growth must have enabled the whole of the population at the apex to secure a greater or a lesser share in the benefits deriving from productivity; the sectors at the base, in contrast, have been untouched by the process.

Since the level of aggregation of the national accounts data on the functional distribution of income is ex-

⁵² See the data on the growth of the population employed in agriculture and in industry during the forties, presented in table 36.

tremely high, nothing is known of the way in which the productivity increments are distributed within the "capitalist sector". Probably, the share falling to those sectors in which the elasticity of the manpower supply is considerable and demand not particularly buoyant has been very small, and *vice versa*. There are specific indications that this assumption is a sound one. For example, the metallurgical industries, which, as has already been shown, were those absorbing most manpower in recent years, were also those in which the wage index registered the biggest increase—logically enough, inasmuch as a dynamic demand was accompanied by a good deal of inelasticity in supply conditions, not only because skilled labour was required but also because a high level of trade-union organization existed in the sector.⁵³

In any event, an assurance which can safely be given is that whatever the relative distribution of the benefits accruing from productivity, the abrupt decline in the rate of employment in the dynamic sector meant that in relative terms the growth of the market became vertical rather than horizontal.

The process of market expansion in this dual economy presents a striking contrast with its counterpart in the past in the developed countries, especially the United States. Given the originally agricultural structure of this latter country, the improvement in productivity in the primary sector, by raising the level of income of wage-earners, increased the purchasing power of the base of the pyramid and at the same time allowed the agricultural manpower that was released by the introduction of technical advances to be absorbed in the secondary and tertiary sectors, whose dynamism was thus essentially based on the expansion of the domestic market in all sectors. It is therefore understandable that although in personal terms the distribution of income may not have been very satisfactory, the continuous shift from the base of the pyramid to the middle strata, and the concomitant rise in the per capita income of the population concerned, enabled the "capitalist sectors" market to expand so vigorously that it quickly became a mass consumption market.

In contrast, the process described in relation to the Brazilian economy, besides resulting in an increasing degree of social inequality which places the population groups not incorporated in it at a grave disadvantage, jeopardizes the dynamism of the "capitalist sector" itself; in absolute terms, the internal market expansion that is taking place within that sector is not sufficient to ensure the maintenance of the recent acceleration of the rate of industrial growth, which has been achieved largely by virtue of a reserved market for import substitution industries.

The impossibility of drawing increasingly large population groups into the consumer market in the near future is basically imputable to the fact that the structure of production in the primary sector corresponding to the base of the pyramid has remained unaltered.

An agrarian reform which would not displace too much manpower and would raise per capita productivity by increasing yields per hectare would thus be justified from the strictly economic standpoint, in that it would pave the way for future mass consumption, which is one

⁵³ Where certain public utilities are concerned, wage increases obviously bear no relation to improvements in productivity.

of the basic characteristics of a developed capitalist society.

In default of this type of consumption, industries producing durable consumer goods are compelled to attempt increasingly vertical utilization of the existing market strata. In the case of Brazil, a symptomatic instance of this struggle to expand by making the utmost possible use of the purchasing power of the higher income brackets is the recent appearance on the market of luxury cars and other conspicuous consumer goods.

It seems unlikely that such a solution could be anything but a short-term palliative of the industrial growth problem. Moreover, it has two drawbacks: it establishes an allocation of resources which is highly unsatisfactory from the standpoint of real (social) costs; and it gives the structure of industry a bias towards stratification, if not aggravation, of the defective income distribution existing within the capitalist sector itself. The most dynamic sectors are driven to depend increasingly upon the demand of the upper income strata.

In the analysis of the three divergent types of disequilibria characteristic of the Brazilian economy's recent development process, a fourth was deliberately omitted; namely, financial disequilibrium,⁵⁴ which also characterized the period under discussion, and was perhaps more marked because it was so closely related to the acceleration of the inflationary process.

It is true that import substitution brings in its train a series of inflationary pressures, deriving either from the external bottleneck itself or from maladjustments in the internal structure of production; nevertheless, the transformation of these pressures into a definite inflationary process comes about through development financing mechanisms, and cannot be studied without prior analysis of what takes place in the nerve centre of the "capitalist sector"—its financial and monetary system. This is entirely outside the scope of the present study.

⁵⁴ Generally speaking, any reference made here to financial disequilibrium alludes to the fact that changes in the structure of production—i.e., the emergence of new dynamic sectors, both public and private—have not been accompanied by a corresponding adjustment of the financial machinery

In the case of the private sector, it is obvious that the increase in the relative importance of industries manufacturing durable consumer and capital goods, whose production processes are more "capitalistic", from the standpoint of both fixed and working capital, has not been combined with the financial changes typical of the advanced countries, where the sectors in question are predominant. For the sake of simplicity, suffice it to mention the present situation as regards the capital market and the banking system, which are not prepared for large-scale financing of the type involved.

The situation of the public sector is little different, either at the strictly governmental level or in the semi-public sector, where, by virtue of the recent development process, substantial investments have had to be effected (especially in the basic sectors), with the result that its share in national investment has considerably increased. And, as in the private sector, this quantitative and qualitative change has not been linked to the establishment of a financing mechanism capable of regularly meeting the financing requirements of public expenditure.

Inflation may justifiably be said to have aggravated the problem, but on the same grounds, and without embarking on an analysis of the subject, it might also be asserted that inflation itself is in some measure due to the gap between objective financing requirements and the capacity of the existing financial structure to satisfy them.

Nevertheless, the conclusions drawn here with regard to the evolution of the import substitution process, in broad outline, as one of Brazil's economic development models would probably still have been reached if conditions of stability had prevailed. Even in the absence of financial disequilibrium, higher rates of growth than those registered in 1956-61, or a greater acceleration and diversification of industrial development, would hardly have been attainable, nor would the structural disequilibria referred to above have been prevented (except in the case of basic services under the control of the public sector), unless the development model followed in the past had been different altogether.

F. PROSPECTS

The Brazilian economy is now faced with a problem of strategy, coupled with other short-term problems, deriving from the fact that import substitution as a development model has already reached its final stage and it has now become imperative to move on towards a new and truly autonomous phase, receiving its vital force from the system itself, in which the structural questions that have been pointed out in the course of this document will have to be dealt with.

The inability of import substitution to carry the development of most of the Latin American countries very much further is a premise that is widely accepted by the economists of the region. The question should, however, be related specifically to the case of Brazil and cleared up in that context, particularly concerning those aspects in which it would be purely academic to regard Latin America as constituting a whole.

In several Latin American countries the development process has been checked primarily by "physical" difficulties, deriving mainly from the lack of a sufficiently diversified industrial structure to enable new stages of substitution, prompted by the external bottleneck, to be embarked upon. For instance, it is particularly difficult for these countries to become producers of capital goods, partly because of their relatively limited market but more especially because of the lack of raw materials and manpower that would enable fairly sizable investments to be made in activities that are highly capital-intensive and technologically very complex.

Brazil presents a different problem, as import substitution has progressed far more there than in the other Latin American countries, and its industrial development is already sufficiently advanced to be able "physically" to replace a number of items forming part of its range of imports. Accordingly, the question is not to discover whether it is "possible" to replace a particular product, but to determine the economic results of such substitution and the "motive force" underlying it.

As far as the results of continued import substitution are concerned, it may be said, in broad terms, that it would tend to slow down economic growth. Apart from the actual magnitude of the present import coefficient—already one of the lowest in the western world—the main argument in support of this statement is the composition of the imports that would serve as a guide to the investment process. Given the kind of goods that currently constitute the range of imports, substitution would lead to investment with a high product-capital ratio; in other words, it would bring about, over the

short term at least, a process of growth with decreasing macro-economic returns. Consequently, if the economy keeps to its present pattern, the previous rate of expansion will obviously be difficult to maintain unless a more intensive rate of investment is achieved than has hitherto been the case.

On the other hand, there are considerations related to demand which make it necessary to inquire into the origin of the motive force so as to undertake substitution where it has not yet been resorted to. In this connexion some of the model's dynamic elements, already described in the first part of this study and closely related to the chain reaction set off by the restrictions on the capacity to import, should be recalled.

In actual fact, the external bottleneck stimulated the development process only to the extent that there was pent-up internal demand for imports of consumer goods. Substitution of these imports expanded the domestic market and generated a consequential demand for capital and intermediate goods which, in its turn, produced a fresh external bottleneck, another wave of substitution and so on in succession.

When, however, the process reaches such an advanced stage that, on the one hand, the imports not yet replaced by the substitution process consist chiefly of capital goods, or raw materials and intermediate products for industry, and, on the other, the consumer goods industries have reached maturity and exhausted the market which was theirs by reason of the external bottleneck, the latter ceases to act as an incentive to investment and hence to growth, and becomes merely an obstacle, removal of which can no longer be the motive underlying the dynamics of the economy.

In the case of Brazil, the diversification brought about by the substitution process was substantial and enabled a wide range of capital goods to be produced. Consequently, the crux of the problem is not the impossibility of continuing with substitution, but the fact that the series of incentives created have lost virtually all their power.

The items that currently make up the major part of Brazil's imports and include categories suitable for substitution are capital goods. These are, however, the products of consequential demand which does not in itself justify substitution. Where will the demand come from to warrant such substitution? As was pointed out, the expansion of the more dynamic consumer goods industries has lost its initial momentum (with the saturation of the reserved market), and has come to the point at which its future development will tend to depend on the rate of income growth.⁵⁵ They are, moreover, new industries, which will not need to replace their equipment for some time to come.

From this it may be inferred that, when an external bottleneck exists, the continuity of the growth process depends fundamentally on autonomous demand for capital goods which is capable of making better use of installed capacity in the domestic capital goods industry or of forcing complementarity, thereby freeing foreign exchange and thus permitting increased imports

⁵⁵ The decline in the rate of industrial expansion seems, in fact, to have been sufficient to reduce the growth rate of the whole economy in 1962.

of certain raw materials and intermediate goods for which domestic production facilities are inadequate.

Autonomous demand of this kind has, moreover, an important short-term function to perform, which is to prevent the loss of momentum in the previously most dynamic sectors from causing a slowdown the effect of which may well be to plunge the capitalist sector into a depression (in which case the external bottleneck will naturally tend to disappear, at least as far as the pressure of imports is concerned).

All that has been said so far bears out the argument that the strategic problem confronting the Brazilian economy is how to make the transition from an import substitution model to a self-sustaining growth model.

In accomplishing the task of bridging the gap between the two models, the decisive variable will be the volume and composition of government investment. Only the public sector, with its relative significance within the economy, is capable of providing autonomous demand on a sufficient scale to counterbalance the negative effects of the exhaustion of the external stimulus.

The fact that autonomous government investment is in practice translated into import substitution does not imply a repetition of the old model. In actual fact, the development process that would take place during this transition period would not be determined essentially by the external bottleneck but by the impulse it receives through government investment itself, on whose volume and composition will depend the short-term rate of growth and, above all, the orientation of the system over the long term.

As the Brazilian economy already has a fairly extensive capital goods sector which includes some activities with very flexible production lines (such as basic equipment or machine-tool manufacture) and a certain amount of idle capacity, there is enough scope for manœuvring from the standpoint of real resources to allow for orientation of the structural changes in different directions. Hence, the complementarity in the industrial sector will largely depend on the strategic planning of the government investment programme.

It is manifestly impossible to discount the importance of the economic policy measures that will have to be adopted at every level in order to get through the transition period successfully. However, given the nature of the present study, which is aimed primarily at clarifying the kind of structural modifications that will be involved in a change of model, the analysis herein is made on a highly theoretical plane, thus ruling out consideration of economic policy matters, however important they may be.

The purpose of these final remarks is to indicate the different strategic possibilities that may arise in the case of Brazil. For methodological reasons, four of them have been chosen to illustrate the broad outlines of the principal topics dealt with so far, but it has been borne in mind that the evolution of the economy may make for the combination of some of them, or at least of some of their aspects.

As regards the first possibility, it is assumed that the external bottleneck will persist and that the sectoral and regional market structures will remain the same. In such circumstances there would be no incentive to large-scale private investment whether domestic or foreign, apart from the investment induced by income

growth. Consequently, development itself would mainly be determined by the amount and composition of public investment.

In view of the premises on which this assumption is based, public investment would be directed towards maintaining the growth rate of the "capitalist" sector. As a result, the basic lines of action of public investment would be twofold: (a) to remedy the internal confusion in the sector, particularly by means of investment in such infrastructural sectors as energy and basic services; and (b) to proceed with import substitution in the various branches of intermediate industry. The first course would tend to raise the yield from the economic system as a whole, while the second, whose cost would be relatively very high, would tend to reduce it. Moreover, considering that in both cases the share of investment with a high product-capital ratio is large, the growth process is liable to slow down unless the Government succeeds in bringing about an appreciable improvement in the economy's over-all rate of savings investment as well as increasing its relative share.

There would continue to be a gap in income distribution between the apex of the pyramid (the "capitalist" sector) and the base (the "less developed" sector), with a probable worsening of the functional and personal distribution of income within the "capitalist" sector itself. This would be due to the low rate of labour absorption in the sectors with the highest productivity and a decline in the growth rate of the hitherto most dynamic industries. These, in an attempt to keep up their rate of return, would be compelled to make increasing inroads on the share of wages in value added, while continuing to exploit to the utmost the consumer capacity of the high-income brackets.

The second assumption is that the external bottleneck will remain but the sectoral and regional distribution of the market might be changed in order to reduce the basic duality of the system. As in the first hypothesis, the growth process would depend primarily on autonomous government investment, but in this particular case the composition of such investment would be the determining factor in reducing the disequilibrium.

To do this, the Government would have to invest heavily in the primary sector and must make every effort to finance and encourage investment in the under-developed areas in order to increase both employment and productivity in the less advanced sector and broaden the future market for the "capitalist" sector.

During the transition period, some branches of industry in the "capitalist" sector itself would be given a considerable fillip, especially those manufacturing production goods. Among these mention should be made of the basic equipment industry which, having a relatively flexible production capacity, could adapt itself more easily to the new type of demand created in an autonomous way by the Government. The impact of this kind of demand would mainly be felt by the industries producing tools and light equipment for farming and for small and medium-scale industry in the under-developed areas.

The traditional industries as well would fairly soon be reaping the benefit of the over-all increase in the income of the under-developed sector. These benefits would accrue not only from the rapid increase in the productivity of certain sectors as a result of the invest-

ment made in them, but also from the immediate increase in expenditure and employment in the under-developed sector.

The durable consumer goods industries alone would fail to derive short-term benefits. They might even be harmed to a certain extent since the resources needed for financing an investment programme of the kind envisaged could not be obtained without an indirect redistribution of income through the public sector and the consequent reduction of the market exploited by the industries in question.

If investment is channelled in this direction, imports of capital goods could be reduced, both because an attempt would be made to make fuller use of domestic capacity for producing such goods and because the change in the structure of public and private investment would sharply reduce import requirements in respect of the capital goods which cannot be manufactured in Brazil.

Since a programme along these lines would bring about a rise in average income and, at the same time, increase employment in the less developed sector, conditions would be ripe for a population shift from the primary to the secondary sector. Meanwhile, the expansion of the market would stimulate the new industries, including those producing durable consumer goods; in fact, Brazil would find itself with an autonomous development model, in which both sectors would develop at the same pace.

On the assumption that external conditions will change while the internal structure is left intact, a third possibility arises, that of an improvement in the position of the external sector as the result of an expansion in traditional exports.

The effect of this would be to increase the capacity to import, thereby giving the industrial sector greater flexibility, and in addition to make use of the ample resources available in the primary sector. In other words, reactivation of the external sector would raise income both directly and through the higher yields produced by the economy as a whole. Then, too, the effects of the improvement in traditional exports on market composition would depend primarily on how the additional income is distributed throughout the system and particularly in the export sector itself. As regards the public sector, the Government would be in a better position to finance investment in the infrastructure.

Under these conditions, however, there would be no basic changes in the structure of the existing system, with all its possibilities and limitations. Moreover, judging from past experience and the long-term prospects for primary commodities, the period of relief would probably be short-lived.

The fourth possibility envisages the resurgence of the external sector through diversification of exports, particularly of industrial products.

It is clear that the chief result of an expansion of industrial exports, either to the Latin American market or to the rest of the world, would be a reactivation of what had hitherto been the most dynamic industrial activities in the "capitalist" sector. This would, in fact, mean the addition of a number of elements of dynamic external demand to that part of the domestic market now forming the apex of the income pyramid.

Consequently, if the process follows this course only, the basic dichotomy between the developed and the under-developed sector would be accentuated, since the effects of an expansion in the dynamic sectors would simply act indirectly on the primary sector (in that they would absorb more of the labour force) but would not necessarily alter the production functions of the more backward sectors.

Needless to say, the four hypotheses are not mutually exclusive, particularly as regards the possibility of combining some internal changes with modifications in the external variables.

The most dynamic hypothesis would be the combination of domestic changes on the lines of those described in the second alternative with an improvement in the position of traditional exports and the gaining of new markets for the industrial goods produced by the more dynamic sectors. Thus, while external demand stimulated the "capitalist" sector, the Government could intensify its autonomous investment to complete the existing industrial structure, with particular attention to the infrastructure of basic services, and to increase in large

measure the proportion of investment in the primary sector and under-developed areas. By means of this investment policy, reinforced on the social plane by measures to achieve better income distribution (especially in the primary sector), the gap between the two sectors of the economy would gradually be closed.

Economic policy obviously comes up against more obstacles when it attempts to influence external variables than when it deals with domestic factors, although the sphere of action of domestic policy is affected by a number of problems deriving from existing institutional and politico-social structures. It is important, however, to have a clear grasp of the possibilities of pursuing a line of policy that would make for a combination of the most promising and feasible aims and methods.

This is undoubtedly a difficult task, the chief obstacles arising not from its intrinsic complexities but from the fact that the country is currently beset by a number of acute and immediate problems that offer little hope for the future. This is probably the greatest challenge facing those who are now responsible for determining the course of Brazilian policy.

PROTECTIONISM AND INDUSTRIALIZATION IN LATIN AMERICA

by *Santiago Macario**

A. IMPORT SUBSTITUTION AND PROTECTIONIST POLICY IN LATIN AMERICA: EVOLUTION AND PRINCIPAL CHARACTERISTICS

1. With very few exceptions, the Latin American countries cannot be said to apply a protectionist policy, if by this is to be understood a systematic body of measures deliberately designed to permit and encourage the development of certain industries rationally selected within an over-all framework of objectives established under a given economic development policy. What did and still does exist is protectionism, but as the largely indirect result of *ad hoc* measures, often adopted, at least initially or during a first stage, as emergency procedures, either in order to solve balance-of-payments problems, or under the pressure of other exogenous factors. Such measures, temporary to begin with, became permanent in most cases and more general in their scope, giving rise to a form of protectionism which has been characterized by extemporaneousness, lack of autonomy (since it is primarily motivated by external causes), extremely high levels and indiscriminate application, and whose basic objective is import substitution at any cost, regardless of which industries it is most expedient to develop and how far the process should be carried.

2. Up to the beginning of the thirties, the Latin American countries pursued a pre-eminently free-trade policy. It is true that during the twenties a number of them had already begun to make use of customs duties as a means of encouraging the expansion of their industrial production (which had been given a considerable impetus during the First World War), not only by intensifying the application of moderately protectionist duties in favour of incipient industries, but also through the reduction of duties on imports of industrial machinery and equipment. Nevertheless customs tariffs remained preponderantly fiscal in character, and the main object of the relatively frequent increases in duties registered in Latin America during the decade in question was to augment revenue.¹ The stimulus to the economic

development of the countries of the region was traditionally provided by the growth of exports; and although in some countries a few fairly significant industries other than export activities developed (in most cases "spontaneously", at least in their initial phase, and afterwards under the aegis of some degree of protection), demand for manufactured goods was mainly satisfied by means of imports. Moreover, these were relatively easily kept in line with the capacity to import through the repercussions of the expansions and contractions in primary exports on economic activity and income levels.

3. With the world depression of the thirties, however, exports of primary commodities underwent so abrupt, marked and persistent a contraction² that the purchasing power of total Latin American exports dropped by almost 60 per cent between 1928 and 1933.³ This setback was combined with heavy losses of foreign exchange as a result of the flight of capital and the propensity of Latin American exporters to retain a considerable proportion of their foreign exchange export earnings abroad. The impact of these and other circumstances (for instance, the United Kingdom's abandonment of the gold standard) placed many Latin American countries under the necessity, first of declaring their currencies non-convertible, in 1929 and 1930, and countenancing appreciable devaluations, and later, from 1931 onwards, applying exchange controls in order to forestall further devaluations, defend their currency and reserves (by holding capital outflows in check and controlling foreign exchange export earnings), and, in general, cope with their serious balance-of-payments disequilibria by rationing the foreign exchange available. The principal

protectionist character of the duties. The foregoing levels were a good deal lower than those computed for Spain and the United States, and comparable, as regards the year 1925, to the estimates for Australia, Hungary and Poland and, in the case of manufactured goods, to those for Canada and Czechoslovakia, besides being little higher than the figures for France, Germany and Italy. See League of Nations, *Tariff Level Indices*, Publications of the League of Nations, II. Economic and Financial, 1927.II.34, Geneva, 1927.

² To the falling-off in demand for primary commodities caused by the contraction of economic activity in the industrialized countries were added the effects of the stringent policy of agricultural protectionism adopted by most of these countries as a reaction to the depression.

³ At current prices and in terms of "new dollars", that is, of the value of the dollar after its devaluation in 1934, the total value of exports from Latin America declined from about \$5 000 million in 1928 and 1929 to \$2 400 million in 1931 and \$1 500 million in 1933. Up to the year 1941 (inclusive) their level remained below \$2 000 million (except in 1937), and only in 1947 did it once again exceed \$5 000 million. This downward movement was mainly due to the fall in prices (in 1933 the unit value of Latin America exports was only a little over one-third of the 1928 figure). Even in 1960 the purchasing power of the region's exports was lower than in 1928; and if Venezuela is excluded, it was barely two-thirds as high in the former as in the latter year (see table 1 below).

* The author, who is a staff member of the Economic Commission for Latin America, has been temporarily seconded to the General Agreement on Tariffs and Trade (GATT). The opinions expressed in this article are the author's own views and will not necessarily coincide with those of either of the two organizations.

¹ According to estimates prepared by the League of Nations, the average level of tariffs in Argentina (the country that had attained the highest degree of industrialization in Latin America) was the same in 1925 as in 1913, i.e., 26 per cent, determined as the simple arithmetic mean of the rates—in *ad valorem* terms—of duties on 278 products selected as the most representative of the foreign trade of the fourteen countries covered by the study (the *ad valorem* rate for each product was calculated on the basis of its average export price). In the case of Argentina, the average level of duties and charges on manufactured goods barely exceeded the over-all tariff level—28 per cent in 1913 and 29 per cent in 1925—a fact indicative of the non-

aim of such rationing was to safeguard the supply of foreign exchange at a preferential rate for the servicing of the external public debt (which at the same time was prevented by the suspension of devaluation from becoming too heavy a burden), as well as for imports of goods regarded as essential (staple consumer goods, raw materials and capital goods).⁴

At that time the exchange controls in question were adopted as emergency measures, purely to serve the ends of exchange policy, not those of protectionism, and were not, at least to begin with, used to restrict specific imports. Thus it was that they were not at first accompanied or supplemented, save in exceptional cases, by quantitative restrictions. It was impossible, however, to prevent them from indirectly producing protectionist effects; for the mere rationing of foreign exchange and establishment of an order of import priorities means that non-essential or luxury goods or products with domestically-manufactured counterparts tend to be relegated to the background, and are assigned a limited amount of foreign exchange, or none at all, at the preferential official market rate, so that payment for them has to be made through the free market, at a less favourable rate of exchange, with the consequent addition to their cost. Inevitably, too, the authorities discovered that such exchange restrictions (which were soon combined with others of a quantitative nature) enabled them to apply policies whose implementation by other means (through changes in the tariff, for instance) would be impossible, or much less effective and rapid in its results. Hence, when the original need to safeguard the balance of payments became of secondary importance, the Governments of the region did not display much willingness to forego such convenient and flexible instruments altogether.

5. Thus, although exchange controls were relaxed throughout the Latin American countries from 1934 onwards (in consequence of the increase in the value and volume of exports, and the resultant alleviation of the foreign exchange shortage), most of the countries of the region began to apply quantitative import restrictions (permits, quotas, embargoes, etc.), or, where such restrictions already existed, they assumed far more importance than before. Increasing recourse was also had to multiple exchange rates,⁵ these again, however, were not yet applied to any significant extent for protectionist purposes, but in response to the need for appropriate instruments of bilateral negotiation and, in many instances, discrimination. In such direct restrictions the Latin American countries found a particularly efficacious instrument of negotiation, whose use, moreover, was virtually forced upon them, in view of the marked trend towards bilateralism in world trade and payments, since it constituted the only effective way of protecting national interests and acquiring some measure of bargain-

⁴ Seven Latin American countries (Argentina, Bolivia, Brazil, Chile, Colombia, Nicaragua and Uruguay) adopted exchange control systems in 1931; three more (Costa Rica, Ecuador and Paraguay) did so in 1932. Mexico followed their example in 1933 and Honduras and Venezuela in 1934. Cuba and El Salvador put exchange controls in operation, but only for brief periods of one and a half and three months, while the Dominican Republic and Peru introduced them only in 1942 and 1945, respectively.

⁵ It was only after the Second World War, however, that the application of multiple exchange rates by the Latin American countries became widespread and intensive (see below, paragraphs 14 and 18, and footnote 13).

ing power vis-à-vis countries which, like many of the industrialized economies, applied very severe foreign trade controls and conducted their trade on strictly bilateral bases.

6. Direct restrictions have certain alluring advantages over the traditional customs tariff instrument. They produce results with greater speed, efficacy and precision; they can be applied with more freedom and flexibility, and lend themselves better to the exercise of administrative judgement; they are more easily adaptable to changing circumstances; and so forth. These paramount considerations, in conjunction with the situation outlined in the preceding paragraph and with the persistence or resurgence, in some instances, of serious balance-of-payments disequilibria, account for the fact that the exchange controls and quantitative restrictions which had originally been introduced as emergency measures took on a permanent character, and became for many years the normal or predominant instruments of trade policy employed by the majority of the Latin American countries.

7. As far as customs tariffs were concerned, during the thirties—or at least after the slackening of exchange restrictions in 1934—they still played a fairly important role in many Latin American countries, especially in those where customs duties can be altered by the executive without prior authorization by the legislature. But they lost a great deal of their effectiveness, and became increasingly inflexible, as a result of the many trade treaties concluded by the Latin American countries with third parties (and in a good many cases with other countries of the region), under the terms of which they granted reductions and consolidations of customs duties in relation to a large number of manufactured goods.⁶ This also played a decisive part in inducing most of the Latin American countries to relegate the customs tariff to a very secondary place as an instrument of trade policy, and to make increasing use of direct controls for the regulation of their foreign trade—a state of affairs which became much more marked during and after the Second World War, as will be seen forthwith.⁷

⁶ Cases in point are the agreements signed by Argentina with the United Kingdom in 1933 and with the United States in 1941. The tariff concessions accorded under them by Argentina related to products which constituted approximately 60 per cent of the total value of its imports. From 1934 onwards, many other Latin American countries signed what were known as “trade reciprocity” agreements with the United States, and likewise granted a number of tariff concessions in respect of manufactured goods.

It should also be pointed out that as from 1931 several Latin American countries (Colombia, Cuba, Ecuador, El Salvador, Guatemala, Haiti and Uruguay) adopted multi-column tariffs—which for years had been a common procedure among the European countries—with the aim of applying discriminatory treatment according to the markets of origin or imports, in particular for balance-of-payments reasons or as a countermeasure against discriminations by which they in their turn were subjected. Thus, imports from countries with which they had a heavy trade deficit were subject to the maximum tariff, with duties that might be, for example, 100 per cent higher than the basic rates.

⁷ This was particularly true of the South American countries, since they all, without exception, resorted (especially in the years immediately following the Second World War) to the simultaneous application of exchange controls, quantitative restrictions and multiple exchange rates, as well as other types of restrictions such as prior deposits, tie-in or mixing requirements, etc. On the other hand, of the remaining ten Latin American countries

8. The indirectly protectionist repercussions of the exchange controls and quantitative restrictions adopted by the Latin American countries during the thirties were reinforced by the effects of the suspension or contraction of normal supplies of manufactured goods from the industrialized countries during the Second World War. The Latin American industries, especially those already established, were thus afforded an opportunity of expanding production up to the limit of their capacity, to satisfy domestic demand and, in the case of countries at a more advanced stage of industrialization, such as Argentina, Brazil, Chile and Mexico, to supply markets elsewhere in the region and even outside Latin America.⁸

9. Full advantage could not be taken of this first opportunity for large-scale import substitution, on account of the shortage of equipment for the installation of new industries or the expansion of those already existing (most of which produced non-durable consumer goods, for example, textiles), and also because of the prevailing tendency to improvisation and the lack of a clear-cut industrial development programme. Nevertheless, it definitively spurred on the industrialization process in several Latin American countries; and—perhaps more important still—it was also a decisive factor in awakening both Government circles and the private sector to the necessity and potentialities of industrialization. Originally dictated by external factors, industrialization became, especially under the pressure of vested interests, a fundamental objective of the economic policy of the Governments concerned.

10. It was thus that, the war once over, the authorities in question adopted an openly protectionist policy in respect of the industries established during the war years and now facing the threat of a recrudescence of external competition. To this end, they used mainly the instruments they had come to consider customary and most efficacious as means of influencing the volume and composition of imports—i.e., direct controls. These, moreover, made it possible to maintain the wartime *status quo*, or, in other words, to reserve the domestic market exclusively for the home industry, and at the same time guaranteed this latter a supply of foreign exchange at preferential rates for imports of capital goods and other inputs not obtainable in the country.

11. But the factor that did most to promote the maintenance of direct restrictions was the concern aroused by the shortage of foreign exchange, in face of the persistence and even the aggravation of the balance-of-payments deficits of most of the Latin American countries, which resulted not only from the eco-

only Costa Rica and Nicaragua took steps of this kind. Mexico, for its part, adopted the licensing system for a considerable and increasing number of products in 1948, to serve preponderantly protectionist ends. In the other seven countries, the customs tariff continued to be virtually the only instrument of import control, and was applied almost exclusively for fiscal purposes.

⁸ For instance, in 1943 Argentina exported 19 000 tons of textile goods, 70 000 dozen pairs of shoes for women and children, 510 tons of other leather manufactures, etc.; Brazil, also in 1943, exported 26 400 tons of cotton textiles (to a value of about \$80 million), as well as substantial quantities of woollen textiles and yarn, pencils, pharmaceutical products, ceramic products and glassware, etc. All these exports contracted sharply in the post-war years, especially after 1948, and by the beginning of the fifties were practically non-existent.

conomic distortions caused by the war⁹ but also from the pressure exerted by demand that had been unsatisfied or held in check for several years—demand both for durable and other consumer goods, and for industrial equipment. At the same time, the urbanization process and the rise in the income levels of the population as a whole had also caused an expansion of normal or current demand for imported consumer goods, and this development was intensified in most cases by inflationary pressures and by the maintenance of exchange rates based on over-valuation of the currency.

12. These factors were combined, especially in the more developed economies of Latin America, with another whose importance was very great, above all over the long term, and which derived from the industrialization process itself: the increasing demand for production goods (raw materials, fuels, intermediate products and capital goods).

13. Although Latin America's exports, in their turn, expanded rapidly in the years immediately following the war, their total value (as well as the value of the external sales of each of the leading exporter countries—Argentina, Brazil, Chile, Colombia, Mexico and Venezuela) having doubled between 1945 and 1948, were far from reaching a level sufficiently high to cover total demand for imports; and after undergoing an abrupt contraction in 1949, they climbed only by slow degrees during the fifties, and almost entirely by virtue of the increase in Venezuela's exports. The purchasing power of exports from Argentina and Chile stood—and still stands—far below the levels attained by both countries in 1928 and 1929;¹⁰ in other countries, such as Brazil, Mexico and Peru, the 1928 and 1929 figures were exceeded only in the fifties, and then by relatively narrow margins. Table 1 reflects this situation in relation to Latin America as a whole, with the inclusion and with the exclusion of Venezuela.¹¹

14. In face of this growing disparity between their import requirements and their capacity to import, and reluctant as they were to countenance the indiscriminate devaluation of their currencies, most of the Latin American countries continued to limit their imports on a selective basis during the post-war years through the application of exchange controls, quantitative restrictions and, above all, multiple exchange rates. In this respect, there was a marked trend in the direction of composite systems, i.e., the combined application of controls to regulate foreign exchange movements by limiting or rationing the use of the foreign exchange available, quantitative restrictions on the quantum or value of the goods to be imported or exported, as the case might be, and restrictions of the kind that operate by raising the cost of imports, typical examples being

⁹ In many cases, the balance-of-payments deficits registered in the post-war period were not so much global as partial, with certain currency areas, especially the dollar area, as a result of the non-convertibility of other currencies and the European countries' inability, for several years, to export the necessary quantities of manufactured goods.

¹⁰ From 1951 onwards, the purchasing power of Argentina's exports fluctuated around 50 per cent of the 1928 and 1929 figures.

¹¹ For data on the evolution of exports as well as on that of imports, by countries or for the years not included in table 1, see ECLA, *Economic Bulletin for Latin America*, vols. V and VI, Santiago, Chile.

customs duties and other charges, surcharges and multiple exchange rates. These systems became distinctly complex, the specific restrictive measures applied by the different countries varying considerably; and within the over-all trend towards composite and complex systems, there was a noteworthy increase in the use of multiple

exchange rates. These, in fact, came to constitute the main instrument of import control or selective regulation used by the Latin American countries in the post-war years, playing a more important role than quantitative restrictions, which in their turn had ousted exchange controls proper as the principal means of regulating imports.

Table 1

LATIN AMERICA: TOTAL AND PER CAPITA EXPORTS AT CURRENT AND CONSTANT PRICES, 1928-60

Year	Total exports (millions of dollars)		Populations (millions of inhabitants)	Per capita exports (dollars)		Export quantum (1955 = 100)	Purchasing power of exports	
	Current values	Constant values at 1955 prices		Current values	Constant values at 1955 prices		Total	Per capita
<i>Including Venezuela</i>								
1928	5 077	7 192	99.3	51.13	72.43	90	122	220
1930	3 380	6 313	102.6	32.94	61.53	79	86	150
1945	3 262	6 639	137.9	23.65	48.14	83	65	84
1950	6 604	7 069	156.1	42.31	45.29	88	98	112
1955	8 017	8 017	178.9	44.81	44.81	100	100	100
1957	8 684	8 852	189.3	45.87	46.76	110	106	100
1958	8 214	8 999	194.7	42.19	46.22	112	102	94
1959	8 345	9 870	200.3	41.66	49.28	123	108	96
1960	8 706	10 037	205.9	42.28	48.75	125	111	96
1961 ^a	8 708	10 238	211.8	41.11	48.34	128	111	94
1962 ^a	9 160	11 054	217.8	42.06	50.75	138	109	90
<i>Excluding Venezuela</i>								
1928	4 880	6 886	96.3	50.67	71.51	113	154	276
1930	3 073	5 931	99.7	30.82	59.49	97	104	180
1945	2 908	5 817	133.6	21.77	43.54	95	76	98
1950	5 443	5 758	151.2	36.00	38.08	94	105	120
1955	6 105	6 105	172.8	35.33	35.33	100	100	100
1957	6 317	6 385	182.7	34.58	34.95	104	105	99
1958	5 893	6 637	187.9	31.36	35.32	109	99	91
1959	5 976	7 339	193.2	30.93	37.99	120	103	92
1960	6 169	7 342	198.6	31.06	36.97	120	106	92
1961 ^a	6 295	7 619	204.2	30.83	37.31	125	109	92
1962 ^a	6 566	8 211	210.0	31.27	39.10	134	106	87

SOURCES: *Economic Bulletin for Latin America*, vol. V (1960), VI (1961) and VII (1962). For 1928 and 1930, ECLA estimates, on the basis of national statistics.

^a Provisional figures.

15. Thus, at the end of the forties twelve of the Latin American countries (all those of South America, and, in addition, Costa Rica and Nicaragua) were maintaining the exchange controls introduced in 1931 and 1932 by all but Venezuela and Peru, which began to apply them in 1934 and 1945 respectively, although in Venezuela's case they were of negligible significance, and in practice very liberal treatment was accorded to external payments. The same twelve countries also resorted to quantitative import restrictions in the shape of licences or permits (generally granted on the basis of individual quotas for each product, and in a few cases—for instance, in Argentina—on the basis of aggregate quotas), and/or embargoes on imports of certain goods (whether specified on a schedule or simply not included among authorized imports). In addition all made use of multiple exchange rates for import purposes, with the exception of Peru, which, however, effected its imports through an exchange certificate market, at a rate rather more favourable than that prevailing on the free market. The degrees of complexity of these multiple exchange rate

systems varied a good deal with regard to the number, combination and determination of rates, etc., although systems based on fixed multiple rates predominated. Subsequently there was a movement towards fluctuating multiple rates, and, in more recent years, fluctuating single rates. In addition, Costa Rica and Nicaragua had already introduced the system of prior deposits on imports, and this procedure soon spread to a number of South American countries, in some of which—Chile in particular—it ultimately acquired major importance as a restrictive measure.

16. The other eight Latin American countries, on the contrary, had given up (or had never adopted) exchange controls and quantitative restrictions, save for a very few exceptional cases. The most important of these was Mexico's adoption of the import licensing system in 1948, alongside the devaluation of the currency. This system was gradually extended until it became the main instrument for the restriction of imports; furthermore, on several occasions Mexico resorted to a general devaluation of its currency as a means of relieving balance-

of-payments pressures. The Dominican Republic and Honduras applied exchange controls, but not restrictively (for example, in Honduras permits were required for external payments, but could be obtained without difficulty). In the other five countries (Cuba, El Salvador, Guatemala, Haiti and Panama) there were no exchange controls (although Cuba taxed all remittances of foreign exchange abroad at a rate of 2 per cent), nor were quantitative restrictions applied as in the Dominican Republic and Honduras, except occasionally in respect of certain products. All these countries, including Mexico, had a single fixed exchange rate. In all of them but Mexico, therefore, the customs tariff continued to constitute the only instrument of import control, and, moreover, was pre-eminently fiscal in character.

17. Although recourse to them was still mainly prompted by the need to ease balance-of-payments pressures (except in isolated cases where the foreign exchange situation was fairly comfortable, as in Argentina up to 1951), the exchange controls and quantitative restrictions applied by the Latin American countries in the post-war years were by that time used much more deliberately than before as an instrument to stimulate the import substitution process and promote industrial development, at least in countries like Argentina, Brazil, Chile and Mexico, where industrialization had reached a more advanced stage and was more firmly established, and, furthermore, had the backing of vested interests and of favourable attitudes and expectations on the part of private enterprise, as well as of a markedly nationalistic outlook among government officials. The authorities made industrialization their watchword, considerably intensifying the import substitution process, which seemed to represent on the one hand the sole (or at least the most viable and immediate) solution for the recurrent problem of the foreign exchange shortage, and, on the other, the only way of absorbing the population increment so as to achieve a more efficient utilization of resources and, in general, attain a more satisfactory rate of economic development. These last considerations, however, began to carry weight only *a posteriori*, as a rationalization of the advantages of industrialization.¹² Greater influence was exerted, in the years immediately following the war, by the need for import substitution to alleviate balance-of-payments pressures, by the intensification of nationalism and of definitely autarkical trends, and by the persistence of the buoyancy resulting from the industrialization process that had taken place during the war.

¹² Concurrently, from 1948 onwards, and chiefly in the ECLA secretariat, a body of theories was gradually built up, in support of industrialization and import substitution in the relatively less developed countries, on the basis of protection, as the only practicable method whereby such countries could secure an adequate share in the benefits deriving from technical progress, solve their recurrent balance-of-payments difficulties, satisfactorily absorb the increase in the labour force, promote the expansion of the total product of the economy, etc. See in particular the following ECLA documents: *The economic development of Latin America and its principal problems*, United Nations Publication, Sales No.: 1950.II.G.2; *Economic Survey of Latin America 1949*, Part I, United Nations Publication, Sales No.: 1951.II.G.1; *Problemas Teóricos y Prácticos del Crecimiento Económico*, United Nations Publication, Sales No.: 1952.II.G.1 (English version issued in mimeographed form only, under the title *Theoretical and practical problems of economic growth*); and *International Co-operation in a Latin American Development Policy*, United Nations Publication, Sales No.: 1954.II.G.2, chapter IV.

18. The pre-eminence accorded by the Latin American countries to the use of multiple or differential exchange rates during this period was substantially attributable precisely to the more decidedly protectionist orientation of import restriction policy; for this type of measure, as has been pointed out, enables a differential and selective devaluation to be put into effect, such as will ensure that foreign exchange is available at favourable or preferential exchange rates for imports of capital goods and other inputs required for industrialization purposes as well as of essential consumer goods, while items replaceable by domestically-produced counterparts, or luxury goods, or lines that compete with domestic production, have to be imported (if quantitative restrictions so permit) at a more burdensome rate of exchange. And although differential exchange rates are equivalent in their effects to customs duties, they have an advantage over these inasmuch as their influence on the level and composition of imports is more direct and efficacious, and particularly as they can be established and amended by administrative decisions, whereas duties, as has been shown, were largely consolidated by various trade agreements; moreover, in many instances changes in these have to be approved by the legislature.¹³

19. This, however, by no means implies that import substitution was a planned process, and that the industries to be protected were determined by rational and systematic selection with a view to promoting the optimum allocation of resources and/or the maximum real saving of foreign exchange. Apart from the continuance of protection for industries already established (before, and above all during, the Second World War), import substitution was effected mainly on the basis of restrictions, and even direct embargoes, imposed on imports of products classified as non-essential or luxury goods, and also, to an increasing extent, in response to requests for protection presented by the private sector in favour of new lines of production that had been launched or that were felt to be worth developing. In most cases, such petitions met, and still meet, with a favourable reception.

20. In this connexion, attention must be drawn to the relatively passive role played in most instances, both now and in the past, by the Latin American authorities in the adoption of deliberately protectionist

¹³ For a discussion of the applicability of multiple exchange rates in the under-developed countries, given their situation and particularly their economic development requirements, as well as of the advantages and disadvantages of the use of such rates in relation to that of the tariff instrument (with which they have important points of contact, since they operate in the same way as customs duties), see E. R. Schlesinger, *Multiple Exchange Rates and Economic Development*, Princeton Studies in International Finance, No. 2, Princeton University Press, 1952. Schlesinger emphasizes the advantages of using, in the countries in question, selective measures of this kind, whose operation is direct and immediate, and which can be modified by the authorities to bring them into line with changing circumstances, rather than resorting to instruments which operate automatically and impersonally; and he draws the conclusion that although the application of direct controls is attended by certain dangers and drawbacks, their introduction in one form or another constitutes a calculated risk that is worth running.

With respect to various forms or type of quantitative restrictions, differences between these and customs duties as regards mode of operation and effects, etc., see *Quantitative Trade Controls: their causes and nature*, League of Nations Publication No. 1943.II.A.5, Geneva 1943.

measures, since they have seldom assumed the initiative in the determination of the industries that should be protected and developed. Only towards the end of the fifties did some Governments (particularly those of Brazil and Mexico) begin to take a more energetic line and impose some degree of planning on the import substitution process, chiefly with the aim of attaining a higher level of industrial integration; concurrently, certain requisites relating to prices, quality, and, more commonly, volume of output, use of domestically-produced raw materials and other inputs, etc., which an industrialist must fulfil for protection to be granted or maintained, were established or for the first time effectively enforced.

21. The contraction undergone between 1951 and 1953 by the purchasing power of exports from several Latin American countries, in particular Argentina, Brazil, Mexico and Uruguay, in conjunction with the substantial expansion of imports that had taken place in the immediately preceding years (owing to the renewal of supplies of exportable goods in the industrialized countries, as well as to the greater inflow of foreign exchange and the uncertainty of future supply prospects resulting from the hostilities in Korea), caused new and increasing balance-of-payments pressures in most of the countries in question. This gave rise to a considerable intensification of their import restrictions, alongside a trend towards the application of more complex and diversified measures of control. In Argentina, for example, the sharp decline in the export quantum registered in 1951, which became even steeper in 1952, compelled the authorities to limit imports in the latter year to essential supplies of raw materials, fuels and capital goods, and to suspend the granting of foreign exchange for imports of any products of a type produced within the country. In the same year, Brazil tightly controlled imports against convertible currencies, confining them to strictly indispensable materials and equipment, the schedule of which, moreover, was reduced from 500 to some 170 products. In 1953 it adopted the system of auctioning foreign exchange, with the aim of still further curtailing imports of non-essential goods or products similar to those manufactured by domestic industry, and affording the latter a higher degree of protection that it had obtained through the multiple exchange rates in force up to that time, besides making up for the inefficacy of the customs tariff.¹⁴ Chile and Uruguay, for their part, reinstated the import licence in mid-1952 for all products, and the former also made additions to its list of banned imports. Mexico, in its turn, endeavoured to offset the increasing pressure on

¹⁴ Up to that time the multiple exchange rates had derived from the application of an exchange tax on most external payments. Under the new auction system five categories of products were established (plus another special category), and in 1954 the surcharge on the cost of foreign exchange for imports in the fifth category was approximately 265 per cent of the official exchange rate. As for the customs tariff, it had almost entirely lost its efficacy as a result of the application of specific duties and of the tariff concessions accorded under bilateral treaties and, to a lesser extent, under GATT. Thus, the average incidence of the import duties and charges actually collected (with the exclusion of petroleum products) declined from 25.3 per cent in 1935 to 9 per cent in 1947 and 8.1 per cent in 1951; on 70 per cent of the imports effected in 1951 the customs duties payable were less than 10 per cent (see ECLA, *Study of Inter-Latin American Trade*, United Nations Publication, Sales No.: 1956.II.G.3).

its balance of payments through the establishment of higher import duties at the end of 1953, and later, in view of the relative inefficacy of this measure, through a general devaluation of the currency in April 1954 (by a little over 30 per cent, in terms of gold). At the same time it considerably enlarged the number of products that could only be imported with a licence (this regulation being even applied to certain raw materials). Furthermore, the latter type of control was tightened severely in respect of imports classified as luxury or non-essential goods.

22. The growing complexity of these measures, however, made them increasingly difficult to apply, and often inoperative, even if not self-defeating, or detrimental to the normal development of productive activities. Moreover, as they were both adopted and applied at the discretion of the administrative authorities and resulted in exceptional gains for the sectors, groups or individuals they benefited, such direct controls became a source of favouritism and corruption. At the same time, the frequent modifications to which the various measures were subject created an atmosphere of insecurity; and these changes were dictated more by the pressure of vested interests, by conjunctural factors or by political considerations than by the requirements of a clearly-defined and co-ordinated programme.

23. As a result, there was a strong reaction in the Latin American countries against the application of controls of this type, and particularly against multiple exchange rates and import licences, quotas, etc. This reaction became still more marked in the second half of the fifties, when the controls in question were abolished or simplified in most of the countries of the region, and replaced by single exchange rates and by additional import duties or surcharges (equivalent in all to customs duties), as well as, in some cases, by tariff reforms designed to reinstate the customs tariff as the main instrument of import control. Stress should also be laid on the decisive influence exerted in this direction in several instances, especially during the second stage, by the recommendations of the International Monetary Fund, under the stabilization programmes put into operation with the financial assistance of that agency.¹⁵

24. Although differing, sometimes substantially, from one country to another, the changes described were generally brought about in two phases: during the first, exchange controls were maintained, but the multiple exchange rates previously enforced were replaced by two—the official market and the free market rates—the whole or the bulk of the country's foreign trade being conducted on the basis of the former; in actual fact, however, a number of real exchange rates sometimes persisted, inasmuch as foreign exchange was provided through the official market at a base value or price officially established for the particular product concerned. Quantitative restrictions were eliminated or reduced to permits (nominal in several cases) for certain goods; but import embargoes were kept in force through the non-inclusion of some items on the schedule of authorized imports. At the same time, or somewhat later,

¹⁵ By 1960 eleven Latin American countries had assumed the commitments specified in article VIII of the IMF Charter, which consisted in the maintenance of currency convertibility, and the avoidance of restrictions on current payments as well as of multiple exchange rates and monetary practices of a discriminatory character.

other restrictions were established in the shape of import surcharges or supplementary taxes, and prior deposits.

25. During the second phase, exchange controls were abolished, exchange rates were unified in a single, free and fluctuating market, such quantitative restrictions as still existed (licences, prohibitions) were abolished, and surcharges or supplementary taxes equivalent in their effects to customs duties were levied. In some instances, the prior deposits established during the first stage were eliminated, but in others they were maintained or even introduced for the first time.

26. Such was, in broad outline, the course pursued in Argentina with the reforms of October 1955 and December 1958; in Chile with those of April 1956 and January 1959;¹⁶ in Bolivia with those of May 1953 and December 1956; in Uruguay with those of August 1956 and December 1959; and in Paraguay with those of February 1956 and July 1957.

27. Brazil, in August 1957, carried out at one and the same time an exchange reform and a tariff reform, by means of which a considerable proportion of the protection formerly accorded through the exchange system was shifted to the custom tariff. The exchange system was simplified, as although the auctioning of foreign exchange still went on, the categories of products were reduced from six to two only; in addition, however, a preferential or subsidized exchange rate was established for imports of wheat, petroleum and petroleum products, newsprint, etc. The import licence was maintained only in a nominal guise, as a means of checking the accuracy of the data declared by the importer. The system of auctioning foreign exchange was abolished later, in March 1961, and all imports are now effected through the free market, although goods classified in the special category need an import licence; this is extended to holders of "promissory permits", which have to be bought at auction on a basis of aggregate quotas. Consequently, in order to import products included in the special category, a considerable surcharge on the free market exchange rate has to be paid.

28. Accordingly, in contrast with the prevalence of the use of exchange controls, quantitative restrictions and multiple exchange rates in Latin America in the early fifties, the import régimes of the Latin American countries ten years later are characterized by the absence of controls of those types. In fact, if Cuba, where State trading is the rule, is not taken into account, exchange controls, multiple exchange rates and quantitative restrictions (import licences and prohibitions) are maintained only by Colombia, Costa Rica, Ecuador and Venezuela. In all these countries, however, exchange controls are simple and exchange rates few in number, and import permits are, at least in Ecuador's case, a nominal requirement. Mexico uses the licensing system as its chief instrument of control; and Chile re-established *de facto*, in January 1962, dual exchange areas and import embargoes.

29. In all the other countries there is a complete absence of exchange controls, multiple exchange rates and quantitative restrictions (except of a nominal kind, or exceptionally or occasionally applied). They all effect their imports at a single exchange rate, either fixed or

¹⁶ In the middle of 1959 prior deposits amounting sometimes to as much as 1500 per cent for 90 days, began to be gradually superseded by supplementary taxes.

free and fluctuating; and import restrictions other than customs duties—which in several countries continue to play a minor or negligible role—consist in surcharges and supplementary taxes with equivalent effects, and, less frequently or as a secondary recourse, prior deposits. The last-named instrument is used by Brazil, Colombia, Ecuador, Nicaragua, Paraguay, Uruguay and, to a much more significant extent, by Chile.¹⁷

30. In several South American countries (for example, in Argentina, Chile, Paraguay, Uruguay), a third phase in the evolution of import restrictions is now under way, in the shape of a tariff reform, aimed at substituting customs duties for the various kinds of taxes and charges (by now complex and numerous in many cases) which are applied to imports, and adopting an up-to-date tariff nomenclature suited to the purposes of making the customs tariff an effective—and primary—instrument of trade policy.

31. Notwithstanding these changes, however, the nature and predominant characteristics of the protectionist policy pursued by most of the Latin American countries remain essentially the same as when the chief import controls were exchange and quantitative restrictions and multiple exchange rates; that is, domestic industry is still accorded excessive and indiscriminate protection, basically geared to import substitution at any cost. Embargoes, quotas, permits, etc., have in fact been replaced by extremely high and often prohibitive charges (including prior deposits), the aim of which is to prevent or restrict as far as possible imports of non-essential goods or items competing with or replaceable by domestic production, regardless of the adverse effect of such a policy on the efficient utilization of resources and, over the medium and long terms, on the trade balance itself, as will be shown later.

32. Moreover, as was the case with most of the former direct restrictions, these charges were generally established in the first place as hasty and makeshift emergency measures—on a temporary basis, that is—in order to cushion what might have been the unduly violent and sudden impact of the elimination of exchange and quantitative controls on the balance of payments and domestic industry; but exactly like the controls in question, the new charges have become permanent, and the subsequent modifications they have undergone have generally taken the form of increases, in response to pressure from industries desirous of obtaining greater protection or to new balance-of-payments crises.

33. Hence the structure of import duties and charges in most of the Latin American countries is characterized by its lack of rationality and by the prevalence of excessively high rates, as regards both average levels and those applicable to the vast majority of individual products. The following section will marshal evidence to this effect, before passing on to analyse the ways in which the extreme and indiscriminate protection granted to domestic industry in the Latin American countries, and the disproportionate emphasis laid on import substitution, have redounded to the detriment of their economic development and their trade balances.

¹⁷ For full details of the various import restrictions applied in the South American countries and Mexico at the beginning of 1960, see ECLA, *Customs duties and other import charges and restrictions in Latin American countries: average levels of incidence* (E/CN.12/554 and Add.1 to 11).

B. DESCRIPTION AND ANALYSIS OF THE TARIFF STRUCTURE¹⁸ IN THE LATIN AMERICAN COUNTRIES

34. In the preceding section of the present study attention was repeatedly drawn to the indiscriminate and excessive protection normally extended by most of the Latin American countries to their domestic production. An attempt will now be made to justify this assertion by means of a study of the tariff structure in the countries concerned, which will show that its most salient features are not only the high average levels of import duties and charges, but also the application of these extremely high duties to the great majority of the various groups of products as well as to individual commodities. In other words, almost all imports, with a few easily identifiable exceptions, are heavily taxed—at any rate under the law, irrespectively of the reductions or exemptions granted temporarily or under the aegis of one of the many special régimes of privileges and immunities.

35. The previously mentioned ECLA study entitled *Customs duties and other import charges and restrictions in Latin American countries: average levels of incidence*¹⁹ includes a detailed description of the customs duties and other import charges and restrictions of equivalent effect applied in eleven Latin American countries—all those of South America, and Mexico—about the beginning of 1960.²⁰ The average levels of incidence of these customs duties and other charges are also computed and briefly analysed, in relation to each individual country and to various groups and categories of products, and an account is given of the methodology followed in preparing the estimates, together with some observations on the nature and significance of the levels in question.

36. All that will be undertaken here, therefore, is to call attention to the findings of the study in question, in so far as they serve to characterize the tariff structure of the Latin American countries. Only occasionally will reference be made to the problem of how far simple arithmetic means or weighted averages are really ade-

¹⁸ Unless otherwise specified, the epithet "tariff" will be used here to designate not only customs duties proper, but also other duties and charges of equivalent effect.

¹⁹ The first part of this study, containing the descriptive matter, over-all analysis and conclusions, was reproduced in volume I of *Multilateral Economic Co-operation in Latin America*, United Nations Publication, Sales No.: 62.II.C.3.

²⁰ It must be pointed out that since the date when import charges and other restrictions were recorded for the above-mentioned study, they have undergone some important modifications, generally in the shape of increases in existing surcharges or the imposition of new ones. This has taken place principally in Argentina, Chile and Uruguay, since early in 1962. For example, Argentina established additional surcharges of 100 per cent on the c.i.f. value of a number of products classified as non-essential or luxury goods, and 40 per cent on machinery not domestically produced (formerly exempt from surcharges), plus a subsequent over-all surcharge of 20 per cent on practically all imports. Chile, which had replaced almost all prior deposits by surcharges of supplementary taxes of up to 200 per cent, re-introduced the deposits at rates of up to 5 000 per cent, while at the same time it increased the aforesaid supplementary taxes and struck about 700 products off the schedule of authorized imports. In Uruguay, the surcharges of 40, 75 and 150 per cent which had replaced exchange controls and direct restrictions were raised early in 1963 to 60, 100 and 300 per cent, while in addition a 20 per cent surcharge was established for a number of products previously exempt, and the prior deposit was increased from 100 to 200 per cent. These increases or new surcharges were, however, temporary in a few cases.

quate modes of expressing tariff levels, especially for the purposes of international comparisons. With the same end in view, these findings will be supplemented with other data and background information concerning the duties and charges applied in the Latin American countries to a large number of products deemed to be representative; averages of duties and charges calculated for three countries (Argentina, Brazil and Chile) on the basis of the whole of their tariff items, expressed in terms of a common nomenclature; and, for purposes of comparison, tariff levels in European countries.

37. In order to facilitate the recapitulation of the findings and conclusions reached in the ECLA document referred to above, the first two tables in that study are reproduced as tables 2 and 3 in the present paper; they relate respectively to the weighted averages and to the simple arithmetic means of the theoretical incidence of customs duties and other duties and charges of equivalent effect applicable to the c.i.f. value of imports in eleven Latin American countries, in respect of a sample of products that represented at least 85 per cent of each country's total imports in a selected year or period. For the averages shown in table 2, the weighting factor used was the value of imports of the various commodities included in the sample. These products were classified in the three categories envisaged in the recommendations that the Working Group on a Latin American Regional Market formulated at its meeting in Mexico in February 1959, in connexion with the structure and basic principles of the Latin American common market²¹ and within those categories were further broken down into several groups, so that partial tariff incidence averages could be computed for each such subdivision.

38. What first strikes the attention in tables 2 and 3 is that the majority of the levels of incidence shown are very high. This is indeed the most characteristic feature of the tariff structure in nearly all the Latin American countries—or at least, those included in the tables in question—which emerges constantly and unmistakably, whether it is the duties and charges applicable to imports of individual products that are considered or the averages of those duties and charges. To give some idea of their real magnitude, they are afterwards compared, both individually and in terms of averages, with those applied in several European countries.

39. Even in the case of Mexico and Uruguay whose levels of duties and charges are the lowest among those included in tables 2 and 3, the real magnitude of the import restrictions applied is much greater than the figures suggest. Mexico, for instance, which shows the lowest level of aggregate incidence and the lowest or next to lowest partial levels in almost all the groups and categories, prefers to use the licensing system as its chief instrument of import control: so much so, that in mid-1960 approximately 40 per cent of its customs tariff items and 60 per cent of the total value of imports effected in 1957-58 (if the average for the period is taken) corresponded to products for which import permits were required. And in the case of Uruguay, the average incidences given in tables 2 and 3 would have been substantially higher if in computing them account had been taken of the surcharges of 40, 75 or 150 per cent (raised at the beginning of 1963 to 60, 100 and 300

²¹ See *The Latin American Common Market*, United Nations Publication, Sales No.: 59.II.C.4, pp. 38 et seq.

Table 2

WEIGHTED AVERAGES OF THEORETICAL INCIDENCE OF CUSTOMS DUTIES AND OTHER DUTIES OR CHARGES OF EQUIVALENT EFFECT ON THE C.I.F. VALUE OF IMPORTS IN SELECTED LATIN AMERICAN COUNTRIES^a

(Percentages)

	Country and import year or period										
	Argentina (1959)	Bolivia (1957-58)	Brazil ^b (1957-59)	Chile ^c (1957-58)	Colombia (1956-58)	Ecuador (1957-58)	Mexico ^d (1957-58)	Paraguay ^e (1957-58)	Peru (1957-58)	Uruguay (1957)	Venezuela (1959)
Duties and charges in force as at:	30.IV.60	31.XII.59	31.VIII.60	15.III.60	30.IX.59	1.IX.59	31.XII.59	30.IX.60	15.IX.59	15.VII.60	23.II.60
<i>Category I. Primary commodities</i>	18.5	9.9	2.9	20.2	28.3	24.7	4.7	26.8	14.5	9.4	35.6
Group 1. Unprocessed foodstuffs	40.6	8.7	1.1	14.2	45.6	23.9	4.1	24.4	12.9	11.0	20.3
Group 2. Raw materials	42.7	16.6	22.0	16.1	19.3	36.2	6.5	50.0	22.7	12.4	68.1
Group 3. Unprocessed fuels	1.0	12.1	0.8	34.1	†	†	1.4	51.5	†	0.1	†
<i>Category II. Capital, intermediate and durable consumer goods</i>	64.7	13.4	36.9	39.6	28.3	40.7	14.1	61.9	18.6	19.3	12.6
Group 1. Intermediate products	49.6	7.6	26.1	40.6	32.9	38.0	19.2	54.6	18.6	15.8	23.2
Group 2. Processed fuels	1.2	14.1	22.8	40.1	12.1	70.2	6.9	76.2	15.4	15.9	32.0
Group 3. Capital goods	78.2	13.3	45.6	37.3	22.2	29.2	11.7	53.1	15.1	22.3	5.2
Group 4. Durable consumer goods	699.7	29.4	79.1	83.7	113.7	75.2	56.2	72.6	33.3	20.3	14.3
<i>Category III. Current consumer manufactures</i> ..	66.5	34.2	40.4	56.8	48.2	62.3	30.8	59.9	35.9	19.2	66.3
Group 1. Processed foodstuffs and tobacco..	142.4	19.1	50.5	62.8	160.5	114.0	132.8	55.4	26.2	23.3	87.3
Group 2. Chemical and pharmaceutical products	62.9	20.8	35.4	14.7	24.6	42.0	9.8	49.2	20.4	9.5	37.5
Group 3. Other current consumer goods	63.6	62.6	37.3	55.1	41.1	59.1	24.0	64.6	44.3	18.4	61.3
<i>Total</i>	52.8	20.4	28.8	38.2	32.1	46.7	13.8	56.1	21.8	15.9	28.0

SOURCE: ECLA, Customs duties and other import charges and restrictions in Latin American countries: average levels of incidence (E/CN.12/554 and Add.1-11).

^a Except in the case of Chile, the cost of financing prior deposits in countries applying this type of restriction (Colombia, Paraguay and Uruguay) is included among duties and charges of equivalent effect to an import duty. In respect of Paraguay and Venezuela, the incidence on the f.o.b. value is converted into terms of the equivalent incidence on the c.i.f. value.

^b Excluding the higher cost of foreign exchange for imports in the special category and the cost of financing advanced payment of the agio or premium on foreign exchange purchased under the auction system.

^c Excluding the incidence of the cost of financing prior deposits and of the supplementary tax or surcharge, since it could not be computed owing to difficulties with

respect to tariff classification equivalences; but including the 3 per cent or 30 per cent *ad valorem* duty on the value of the nationalized goods.

^d Average incidence on the statistical value, not on the value as recalculated at official prices.

^e Including the sales tax, whose incidence on the c.i.f. value of total import is approximately 8 per cent as a weighted average and 12 per cent as a simple arithmetic mean. Incidences are expressed in terms of their equivalents in relation to the c.i.f. value.

^f There were no imports of sufficient magnitude to warrant their inclusion in the sample.

Table 3

ARITHMETIC MEANS OF INCIDENCE OF CUSTOMS DUTIES AND OTHER DUTIES OR CHARGES OF EQUIVALENT EFFECT ON THE C.I.F. VALUE OF IMPORTS IN SELECTED LATIN AMERICAN COUNTRIES^a

(Percentages)

	Country and import year or period										
	Argentina (1959)	Bolivia (1957-58)	Brazil ^b (1957-59)	Chile ^c (1957-58)	Colombia (1956-58)	Ecuador (1957-58)	Mexico ^d (1957-58)	Paraguay ^e (1957-58)	Peru (1957-58)	Uruguay (1957)	Venezuela (1959)
Duties and charges in force as at:	30.IV.60	31.XII.59	31.VIII.60	15.III.60	30.IX.59	1.IX.59	31.XII.59	30.IX.60	15.IX.59	15.VII.60	13.II.60
<i>Category I. Primary commodities</i>	54.2	21.1	13.4	40.8	43.3	34.0	7.8	48.2	18.1	12.3	52.2
Group 1. Unprocessed foodstuffs	40.4	17.8	9.5	33.5	68.0	32.9	12.8	47.1	15.1	13.8	38.0
Group 2. Raw materials	65.0	27.0	19.7	45.1	30.9	35.8	7.0	50.0	22.5	12.4	75.7
Group 3. Unprocessed fuels	6.9	12.0	10.2	53.5	†	†	2.0	52.5	†	0.1	†
<i>Category II. Capital, intermediate and durable consumer goods</i>	96.9	17.6	40.8	45.9	33.9	44.3	16.8	58.8	22.0	24.0	22.3
Group 1. Intermediate products	62.1	12.1	31.0	45.3	35.9	43.7	17.2	59.1	23.6	22.7	40.4
Group 2. Processed fuels	4.0	14.8	29.3	45.5	11.4	61.0	7.1	59.1	15.9	21.2	40.3
Group 3. Capital goods	84.7	17.4	46.1	40.5	26.5	32.7	14.9	52.6	17.6	26.5	10.9
Group 4. Durable consumer goods	612.2	37.1	60.0	83.4	100.9	106.5	46.7	72.7	35.2	24.1	14.7
<i>Category III. Current consumer manufactures</i> ..	110.0	52.5	50.4	66.2	58.9	73.1	33.9	66.1	40.9	22.7	111.6
Group 1. Processed foodstuffs and tobacco..	136.4	35.9	56.3	126.4	137.6	124.8	121.6	70.2	29.1	18.4	287.0
Group 2. Chemical and pharmaceutical products	102.7	37.8	25.0	16.5	30.8	59.3	10.9	58.9	20.6	10.1	121.1
Group 3. Other current consumer goods	108.6	58.7	52.0	64.5	57.1	67.6	28.3	65.5	47.9	26.0	74.0
<i>Total</i>	91.5	30.3	40.1	49.2	41.3	54.9	18.1	61.5	28.3	21.1	56.0

SOURCE: As for table 2.

^a Except in the case of Chile, the cost of financing prior deposits in countries applying this type of restriction (Colombia, Paraguay and Uruguay) is included among duties and charges of equivalent effect to an import duty. In respect of Paraguay and Venezuela, the incidence on the f.o.b. value is converted into terms of the equivalent incidence on the c.i.f. value.

^b Excluding the higher cost of foreign exchange for imports in the special category and the cost of financing advanced payment of the agio or premium on foreign exchange purchased under the auction system.

^c Excluding the incidence of the cost of financing prior deposits and of the supplementary tax or surcharge, since it could not be computed owing to difficulties with

respect to tariff classification equivalences; but including the 3 per cent or 30 per cent *ad valorem* duty on the value of the nationalized goods.

^d Average incidence on the statistical value, not on the value as recalculated at official prices.

^e Including the sales tax, whose incidence on the c.i.f. value of total import is approximately 8 per cent as a weighted average and 12 per cent as a simple arithmetic mean. Incidences are expressed in terms of their equivalents in relation to the c.i.f. value.

^f There were no imports of sufficient magnitude to warrant their inclusion in the sample.

per cent, respectively) and the cost of financing the prior deposit, introduced as from the end of September 1960 to replace the exchange controls and import permits and embargoes which had previously been in use, especially before the December 1959 reform.

40. Quantitative or direct import restrictions are also more or less extensively applied by Colombia, Ecuador and Venezuela (principally in the form of import licences and embargoes) and, recently, by Chile. In Colombia, for example, at the end of 1962, approximately 30 per cent of the tariff items consisted of products whose importation was prohibited, and another 30 per cent of goods that could not be imported without a permit; the number of these latter has considerably increased since then. Again, where Brazil was concerned, in the computation of the average levels of incidence of duties and charges appearing in tables 2 and 3, the higher cost of foreign exchange for imports in the special category—or, since the beginning of 1961, the cost of purchasing the “promissory permit” at auction—(equivalent in mid-1962 to a surcharge of over 200 per cent of the value of the product) was not taken into account, and neither was the cost of financing the prior deposit of 100 per cent for 150 days. Nor, in Chile’s case, did the estimates incorporate the cost of financing the prior deposit (which once again acquired considerable importance for a number of products, with the re-establishment of deposits of up to 5 000 per cent early in 1962), or the supplementary tax or surcharge of up to 200 per cent of the c.i.f. value of the product. If these items (which had to be excluded on account of the difficulty of establishing equivalences with the tariff classification) had been included in the levels of duties and charges for Chile, the latter would have exceeded the figures appearing in tables 2 and 3 by at least an estimated 50 per cent.

41. Admittedly, moreover, to form a more accurate idea of the relative levels of averages of duties and charges in the various countries, other background data would have to be taken into account: in particular, the effect of the exchange rate, and the extent to which the aforesaid duties and charges are actually applied in practice. Both these problems are fully discussed in the ECLA document to which reference has already been made (paras. 34-39, 62 and 63). It is pointed out that an artificially high exchange rate represents an import subsidy, and as such offsets or reduces, commensurately with the extent to which the currency is over-valued, the restrictive effect of duties and charges, whereas an exchange rate based on under-valuation of the currency, on the contrary, is equivalent to an additional duty; and a suggestion is made that the relative over-valuation or under-valuation of currencies might possibly be estimated through the relation between their levels of purchasing power. This method had been previously used in another ECLA secretariat study.²² Accordingly, it may be stated, for purely illustrative purposes, that the high level of incidence of import duties and charges in Venezuela is largely compensated by the fact that imports are effected at exchange rates based on a considerable over-valuation of the currency; the same situation was observable in Chile before the October 1962 devaluation.

²² See “A measurement of price levels and the purchasing power of currencies in selected Latin American countries 1960-62”, *Economic Bulletin for Latin America*, vol. VIII, 1963.

42. With regard to the practical application of the duties and charges legally in force, the document cited also points out that considerable proportions of the Latin American countries’ imports are effected under the aegis of special régimes of reductions or total exemptions, so that the real incidence of duties and charges is often a good deal lower than their theoretical incidence. The extreme cases in point are those of Argentina and Chile, where the real incidence represented, in the selected years, only 35-40 per cent of the estimated theoretical incidence. However, as the study indicates, the procedure whereby reductions or total exemptions are granted is in many instances tantamount to a system of permits or licences, whose restrictive effect would correspond to that of the duty theoretically applicable, which therefore may justifiably be taken into account in preference to that actually applied.²³

43. While the foregoing considerations must be borne in mind in assessing (individually or as averages) the relative levels of incidence of import duties and charges in the Latin American countries, they do not invalidate—on the contrary, in some instances they corroborate—the statement made in paragraph 38 to the effect that the most characteristic feature of the tariff structure in the countries of the region is the excessive magnitude of the duties and charges in question. Mexico, certainly, would appear to be an exception to the rule; but it must be remembered that in Mexico it is the permit or licensing system that is the main instrument of control, not custom duties or other import duties and charges. If any country were to be excluded, it would have to be Peru—and perhaps, with some reservations, Bolivia—since apart from the fact that the import duties and charges applied in these countries are relatively low in comparison with the corresponding levels in other Latin American countries, they constitute virtually the only import restrictions in force.

44. A few comparisons may be adduced in support of this assertion. In contrast with the total weighted averages shown in table 2, which are higher than 25 per cent in most countries and in some even exceed 50 per cent, the average level (weighted by 1958 imports) of the European Economic Community’s external tariff, prior to the Dillon negotiations, was 7.6 per cent;²⁴ the average of the duties in force in the United States as at 1 January 1953, weighted by 1952 imports, was only

²³ The exemptions generally benefit machinery and equipment which are to be used for the installation of new or the expansion of existing industries or which represent foreign capital investment, as well as machinery and implements for agriculture or for certain specific industries—steel making, the petroleum industry, the manufacture of fertilizers, etc.—and, less frequently, certain raw materials or foodstuffs (to an amount equivalent to the deficit in internal supplies). Imports effected by State and semi-public bodies (railways, etc.) are also usually exempted, under the law or *de facto* (see again E/CN.12/554, paragraphs 26 to 33, and annexes).

²⁴ See EEC Statistical Office, *Informations Statistiques*, 1960, No. 3. The average incidence of the duties in force in the States members of EEC as at 1 January 1957, weighted by their imports from third countries in 1958, was according to the same publication, 8.1 per cent.

If EEC’s imports in 1958 from the Contracting Parties of GATT are taken as the weighting factor, the average level of the Community’s common external tariff was originally 9.1 per cent, and was then reduced to 8.6 per cent as a result of the concessions it granted at the GATT Tariff Conference in 1960-61 (Dillon negotiations). See United Nations, *Economic Bulletin for Europe*, vol. 14, No. 1, September 1962, p. 57.

5.1 per cent;²⁵ and the average incidence of duties on industrial products (excluding foodstuffs and certain other commodities such as petroleum, essences and cosmetics, etc.) under the Swedish tariff in 1954, and weighted by 1950 imports, was 9.1 per cent.²⁶

45. But weighted averages of duties and charges do not adequately reflect the real tariff level, for the very reason that the weighting factor—the value of imports of each product or tariff item—is largely and often decisively determined by the amount of the duty applicable to the product concerned. In other words, the weighted average does not give an accurate idea of the level of duties and charges, because it is little influenced by high duties, if at all. The simple arithmetic means shown in table 3, calculated as they are on the basis of a sample which excludes all products that are imported in small quantities or not at all, and therefore all those on which extremely high or prohibitive duties are payable, are also unsatisfactory for the same reasons. Far more representative of the tariff level are simple arithmetic means computed on the basis of the duties and charges on all products, but expressed in terms of a standard nomenclature for the various countries and properly balanced, so as to minimize the effects of attaching equal weight to the duty on an article of minor significance and to that payable on a much more important product.²⁷

46. These estimates were prepared in the ECLA secretariat, by a special study group on economic analysis of customs tariffs, for three Latin American countries (Argentina, Brazil and Chile), as well as for France, the Brussels Tariff Nomenclature (BTN) being adopted. To this end, the first step was to determine the arithmetic means of the individual duties and charges (in *ad valorem* terms) legally applicable in each of these four countries at the beginning of 1960, under the most-favoured-nation clause, to products classifiable under each BTN item, and thus to obtain the *ad valorem* duty that approximately corresponded to each item in each country.²⁸ The simple arithmetic means of the said duties

²⁵ See United States Tariff Commission, *Effect of Trade Agreement Concessions on United States Tariff Levels Based on Imports in 1952*, Washington, D.C., 1953.

²⁶ Swedish Tariff Commission, *Revision of the Swedish Customs Tariff*, Stockholm, 1957.

²⁷ See again E/CN.12/554, paragraphs 40 to 52, dealing with the nature and significance of average tariff levels.

²⁸ As pointed out elsewhere, these duties and charges may not be identical with those applied in practice, but in many instances may be reduced or even eliminated by virtue of special exemption régimes or administrative decisions. It should also be noted that the reclassification in BTN terms of duties and charges applicable under the tariff nomenclatures of the several countries present serious difficulties (especially in the case of a nomenclature as out-of-date and unsatisfactory as that used by Argentina), which often had to be overcome by resorting to subjective appraisals of the relative importance of the various products included under a BTN item, to estimates of the level of duties and charges applicable to the products in question, and to certain other simplifications. Consequently, the results obtained are merely approximate figures, which serve, however, to give an adequate idea of the order of magnitude of the average levels of duties and charges in the different countries concerned.

In the case of Brazil, only the duties established in the customs tariff (which are almost entirely *ad valorem*) were taken into account; the customs clearance rate (5 per cent of the c.i.f. value for almost all products) was not included, and neither was the higher cost of foreign exchange for products classified in the special category (constituting about one-third of the total number of items in the Brazilian tariff), which at the time of preparing

and charges were then computed for the whole of the Brussels Tariff Nomenclature and for each of its chapters and sections.

47. The results obtained are presented in annex II of the present study (tables A and B). A glance at the figures given in the tables reveals a really striking difference between the averages computed for the three Latin American countries on the one hand, and for France on the other, the former being remarkably high. If the over-all averages, corresponding to the BTN items in the aggregate, are considered, Argentina's is 151 per cent, Brazil's 60 per cent, and Chile's 93 per cent, even with the exclusion of the increase in the surcharges applied by the first of these countries during 1962, the higher cost of importing goods classified in the special category in the case of Brazil, and the supplementary tax or cost of financing the prior deposit—substantially increased during 1962—in that of Chile. For example, as regards the last-named country, if account had been taken of the supplementary tax or cost of financing the prior deposit in force before the 1962 increases, the average incidence of duties and charges would probably have exceeded 150 per cent. In contrast, the corresponding figure is only 18 per cent for France, which among the European countries is traditionally regarded as one where duties are high.²⁹

48. Such differences are not only observable in relation to the over-all averages, but systematically recur in respect of almost all the BTN items, chapters and sections, thus ratifying the previous assertion that in the Latin American countries very high duties and charges are not of rare occurrence, but are applied to

the estimates (early in 1960) was approximately equivalent to a surcharge of 200 per cent on the c.i.f. value of the product.

For Chile, only specific duties (in terms of *ad valorem* equivalence) were taken into consideration, together with the *ad valorem* duties established in the Customs Tariff, on the basis of the computations and the reclassification under BTN items carried out by the Office of the Superintendent of Customs in preparation for a tariff reform. Consequently, neither prior deposits nor the supplementary taxes which in many instances replaced them were included. At the beginning of 1960, prior deposits fluctuated between 5 and 1500 per cent of the c.i.f. value, for periods of 30 to 90 days, and the cost of financing them was estimated, in the case of a prior deposit of 1500 per cent for 90 days, at 90 per cent of the c.i.f. import value. In the course of 1962 yet higher prior deposits were reintroduced; at the beginning of 1963 the maximum deposit was 10 000 per cent. Supplementary taxes, for their part, ranged from 5 to 200 per cent of the c.i.f. value of the merchandise.

In Argentina's case the *ad valorem* customs duties were taken into account (not the specific duties, since their incidence was very slight), together with the exchange surcharges in force at the beginning of 1960. During the year 1962, the latter were increased, since additional surcharges of 40 per cent on machinery not produced in Argentina and 100 per cent on luxury goods were imposed, and to these was subsequently added a further surcharge of 20 per cent on practically all imports.

²⁹ On the basis of a similar procedure, the Swedish Tariff Commission worked out the following arithmetic means of duties and charges, expressed in terms of the Standard International Trade Classification (SITC), in accordance with data supplied to GATT by the countries concerned: Denmark, 4 per cent; Sweden, 6 per cent; Benelux countries, 9 per cent; Canada, 11 per cent; Norway, 12 per cent; Federal Republic of Germany, 14 per cent; United Kingdom and United States, 15 per cent; Austria, 16 per cent; France, 17 per cent (comparable with the 18 per cent estimated by the ECLA secretariat); and Italy, 21 per cent (see Swedish Tariff Commission, *op. cit.*, p. 38). The arithmetic mean of the new Spanish tariff would seem to be, in BTN terms, 24 per cent (see *Panorama de la Economía Argentina*, vol. II, Year IV).

the great majority of individual products. For example, according to the average of duties and charges computed for each of the 99 chapters of the BTN and presented in annex II, table B, for only one chapter is the average level of Argentina's duties and charges lower than 50 per cent, whereas it exceeds 100 per cent in relation to 93 chapters, and of these 64 show averages ranging from 150 to 200 per cent. With respect to Brazil, the average incidence of duties and charges falls below 10 per cent in the case of 5 chapters, and reaches more than 50 per cent in that of 70, of which 20 register averages higher than 100 per cent; the corresponding figures for Chile are 2, 74 and 37 chapters respectively (the average exceeding 150 per cent for 11 chapters, and 200 per cent for 9 of these). Where France is concerned, on the other hand, average incidences are less than 10 per cent in respect of 17 chapters, between 11 and 20 per cent for 42, and between 21 and 30 per cent for 36, rising above 30 per cent only in the case of 3 chapters.⁸⁰

49. For purposes of comparison, the arithmetic means of the duties and charges applied in Argentina, Brazil, Chile and France were also computed, in terms of BTN items, which were, however, classified under the cate-

⁸⁰ For some comparisons of levels of duties and charges applicable in these four countries to individual BTN items, see footnote 36.

gories and groups adopted in tables 2 and 3; the results obtained are given in table 4, together with the weighted averages and simple arithmetic means calculated in tables 2 and 3 for the three Latin American countries, on the basis of the products that represented at least 85 per cent of their imports. As was to be expected, in almost every case the arithmetic mean of duties and charges was higher for the BTN items in the aggregate (see column III), and as a rule a good deal higher, than the weighted average or simple arithmetic mean of the duties and charges applicable to products of some significance within each country's imports (see columns I and II). The only exceptions to this rule are traceable to imports of products on which the duties and charges legally in force are high, but which are effected under special or over-all systems of reductions or exemptions: for example, the capital goods enumerated in chapter 84 of the Brazilian tariff, and parts and spare parts for passenger cars, lorries and tractors, as well as for un-assembled passenger cars, in Argentina.

50. Although it was impossible, on account of the great and in some instances insurmountable difficulties arising, to prepare similar calculations of tariff levels for other Latin American countries, it may be assumed that the differences between weighted averages and simple arithmetic means noted in table 4 in respect of Argentina, Brazil and Chile would recur in their case. Presum-

Table 4

COMPARISON OF AVERAGE LEVELS OF INCIDENCE OF IMPORT DUTIES AND CHARGES IN ARGENTINA, BRAZIL, CHILE AND FRANCE
(Weighted averages and simple arithmetic means)

Category and group	Argentina			Brazil ^a			Chile ^b			France
	I	II	III	I	II	III	I	II	III	III
Category I. Primary commodities	18.5	54.2	131	2.9	13.4	40	20.2	40.8	93	
1. Unprocessed foodstuffs	40.6	40.4	145	1.1	9.5	43	14.2	33.5	114	21
2. Raw materials	42.7	65.0	129	22.0	19.7	38	16.1	45.1	86	5
3. Unprocessed fuels	1.0	6.9	34	0.8	10.2	29	34.1	53.5	30	1
Category II. Durable, intermediate and capital goods.....	64.7	96.9	138	36.9	40.8	45	39.6	45.9	67	
1. Intermediate products	49.6	62.1	138	26.1	31.0	43	40.6	45.3	73	17
2. Processed fuels	1.2	4.0	95	22.8	29.3	30	40.1	45.5	89	7
3. Capital goods	78.2	84.7	130	45.6	46.1	45	37.3	40.5	44	19
4. Durable consumer goods....	699.7	612.2	181	79.1	60.0	75	83.7	83.4	104	24
Category III. Current consumer manufactures	66.5	110.0	175	40.4	50.4	87	56.8	66.2	126	
1. Processed foodstuffs and tobacco	142.4	136.4	180	50.5	56.3	91	62.8	126.4	188	25
2. Chemical and pharmaceutical products	62.9	102.7	151	35.4	25.0	69	14.7	16.5	82	20
3. Other current consumer goods	63.6	108.6	175	37.3	52.0	88	55.1	64.5	118	19
Over-all total	52.7	91.5	151	28.8	40.1	60	38.2	49.2	93	18

SOURCES: For columns I and II, tables 2 and 3 above; for column III, ECLA, estimates prepared by the special study group on the economic analysis of tariffs.

NOTE: Column I: Weighted averages (weighting factor, imports) in respect of sample representing at least 85 per cent of total imports in certain recent years.

Column II: Simple arithmetic means of duties and charges on products included in the sample referred to above (i.e., excluding goods that are imported on a small scale or not at all).

Column III: Simple arithmetic means of the duties and charges that would correspond to each and all of the BTN items reclassified in the categories and groups adopted in the present table.

^a Brazil: excluding higher cost of foreign exchange for imports in the special category.

^b Chile: Not including additional tax or cost of financing prior deposit.

ably, then, tariff levels, expressed in terms of simple arithmetic means of all duties and charges, would be substantially higher for all the Latin American countries included in tables 2 and 3 than for the countries of Western Europe, even those where the levels in question are highest, such as France, Italy and Spain.

51. For example, the weighted average of the incidence of import duties and charges on raw materials other than foodstuff in the Latin American countries referred to in tables 2 and 3 ranges from 6.5 per cent for Mexico to 43 per cent for Argentina, 50 per cent for Paraguay and 68 per cent for Venezuela, whereas the corresponding average is nil in the United Kingdom and almost nil in the external tariff of the European Economic Community (EEC) and of most countries in Western Europe. As regards the weighted average of the incidence of import duties on capital goods, only in four of the Latin American countries considered—Bolivia, Mexico, Peru and Venezuela—is it lower than 20 per cent; it is as much as 45 per cent in Brazil, 53 per cent in Paraguay and 78 per cent in Argentina (where, moreover, an additional surcharge of 40 per cent on all machinery not produced in the country was introduced at the beginning of 1962), whereas it reaches only 10.9 per cent in the United States, 13.8 per cent in the external tariff of EEC,³¹ and 9.6 per cent in that of Sweden.³² The differences are even more marked and significant in the case of levels calculated as simple arithmetic means of duties and charges on all products, in BTN terms, for Argentina, Brazil, Chile and France, see again table 3, column III. Much higher levels are observable in the three Latin American republics than in the European country, not only for durable and current consumer goods, but also for unprocessed foodstuffs, non-industrial raw materials, intermediate products and capital goods.

52. To justify the assertion that the duties and charges applicable to most individual products are likewise very high, and also to give a more exact idea of the tariff structure in the Latin American countries, annex III of the present study shows the approximate incidences, in *ad valorem* terms, of the various duties and charges levied in the countries members of the Latin American Free-Trade Association (ALALC) (with the exception of Uruguay), and under EEC's external tariff, on imports of 125 products considered to be the most representative of the production and foreign trade of the countries concerned. These products, designated in terms of BTN items, were classified in the following three categories: I. Primary commodities and capital goods; II. Semi-manufactured products and durable consumer goods; and III. Current consumer manufactures. Within these categories they are broken down into various groups, and the simple arithmetic mean of each country's duties and charges on the products included in each group is shown.³³ In addition, where a product is subject

³¹ These average levels for the United States and EEC correspond to BTN section XVI (machinery and mechanical appliances; electrical equipment and parts thereof), according to data published by the Committee for Economic Development, *A New Trade Policy for the United States*, Washington, D.C., April 1962.

³² Swedish Tariff Commission, *op. cit.*, average weighted by imports corresponding to chapter 84 of the BTN (machinery and mechanical appliances).

³³ It should be stressed that owing to the many and substantial difficulties encountered (to which extensive reference is made in document E/CN.12/554, *op. cit.*), mainly as a result of the wide

to the import licence requisite or to prohibition in any given country, the letter (L) or (P) is appended to the corresponding duty or charge.

53. Analysis of the figures presented in annex III therefore confirms that, as has been pointed out on various occasions the following are characteristic features of the tariff structure in the Latin American countries it covers:

(a) With a very few exceptions, all imports, including raw materials and capital goods, are dutiable, at any rate under the law, although in many instances the studies are not applied. The rare exceptions to this rule, which are not, incidentally, common to all countries, relate to such commodities as livestock for breeding purposes, certain unprocessed fuels—coal, crude petroleum—some fertilizers, newsprint, books and some kinds of agricultural machinery or equipment. Such a situation is in marked contrast to the conditions prevailing in the countries of Western Europe and in the United States, where raw materials are as a general rule exempt from all duties and charges or subject to a very low duty, in accordance with what is a basic principle in a rational tariff.³⁴ In the case of the Latin American countries, in process of development and producing capital goods on a small scale or not at all, the same principle should apply to these latter;

(b) Contrary to what might logically be expected, the products on which the heaviest import duties and charges are payable in Latin America usually include all or almost all those which are traditionally exported by each of the countries of the region, and which are therefore produced on a sufficiently competitive basis to make any form of protection presumably needless. Thus, in annex III it may be noted that in Argentina the level of import duties and charges on livestock for consumption, meat, butter, lard, preserved meat, wheat, leather, linseed oil, etc., is about 200 per cent (although here the reason might be that it was not felt necessary to include such products among those exempt from surcharges—an argument which is not applicable, however, to other countries); the Brazilian tariff establishes customs duties of 60 to 100 per cent on bananas, coffee, maté, sugar, cacao, cotton, etc., all of which products (with the exception of the last-named) are, furthermore, classified in the special category, which implies an additional surcharge of over 200 per cent; in Colombia, imports of coffee are liable to a 135 per cent duty, and, moreover, are prohibited; Mexico levies duties of 39 per cent on imports of coffee, 53 per cent on those of sugar and 23 per cent on those of cotton; in Chile, duties of 52 per cent, 30 per cent and 39 per cent respectively are payable on imported wood, electrolytic copper ingots, and copper bars and sheet, besides which, imports of all these

variety of duties and charges, dissimilar and defective classifications, etc., the levels of duties and charges given in annex III are often only approximate estimates, which should be taken as mere indications of orders of magnitude. Furthermore, some products—for example, cotton textiles, tools, etc.—which it would have been desirable to include in the table had to be left out because of the impracticability of satisfactorily identifying a type representative of them in the majority of the countries. As far as Uruguay was concerned, the difficulties of properly determining the duties and charges applied to various products were so great that this country had to be excluded altogether.

³⁴ See the treatment accorded to raw materials under EEC's external tariff (annex III, last column and footnote 38) and by certain European countries (table 6).

products are at present prohibited. Although it is true that these duties and charges have no real significance, they would be legally applicable, and, more important still, they are representative of a fundamental principle in the protectionist policy pursued by the majority of the Latin American countries—the idea that imports of all goods which are or may be produced in the country concerned should be prohibited, or subject to prohibitive duties;

(c) The vast majority of the duties and charges on individual products are high, and in many instances exceptionally so. For example, while duties rarely exceed 20 per cent in the EEC tariff, they seldom fall below that level in the Latin American countries to which annex III relates, and the exceptions are mostly confined to Peru. If the processed foodstuffs group is excluded, under EEC's external tariff only 11 out of the other 111 products included in annex III pay duties of more than 20 per cent (5 of them belonging to the durable consumer goods group), and out of the whole list of 125, only one (sugar) is subject to a duty of over 30 per cent. In Peru (the country whose tariff structure and levels of duties on the goods comprised in annex III are closest to those of EEC) and in Mexico, duties of more than 20 per cent are payable on 43 and 66 products respectively, and on 15 and 41 of these the duties exceed 50 per cent. At the other extreme, in Argentina (irrespective of the increases introduced in 1962) only 24 of the 125 products under consideration are liable to duties of less than 50 per cent, while the

duties on 15 of them range from 50 to 100 per cent, and on the remainder rise above 100 per cent.³⁵ It should be noted, moreover, that in Mexico and Colombia most of the products included in annex III are subject to the import licence requisite or to prohibition (and, in a lesser degree, to prohibition in the case of Ecuador and Chile).³⁶

³⁵ When more than one duty or charge is registered for a product in annex I, the arithmetic mean is taken.

³⁶ Similar comparisons can be made on the basis of the estimates of the simple arithmetic means of duties and charges prepared in terms of BTN items for Argentina, Brazil, Chile and France, and shown in annex II and column III of table 4 above; under the French tariff, only 16 products are subject to duties exceeding 35 per cent, and of these, only 4 (refined and semi-refined sugar, carpets and tapestries) pay duties of more than 50 per cent, whereas for approximately 50 per cent of the items on Brazil's customs tariff the duties payable are higher than 35 per cent (excluding other additional charges, such as the 5 per cent customs clearance rate and the heavier cost of foreign exchange for imports in the special category). In BTN terms, about 269 products (i.e., one-fifth of the total number of BTN items) are subject to customs duties of over 100 per cent in Brazil (again without taking into account the higher cost of foreign exchange for goods in the special category), about one-third of the Brazilian tariff items being classified under these BTN heads. In Chile, duties and charges of over 100 per cent are levied on some 258 BTN items, irrespective of the supplementary tax or the cost of financing the prior deposit. In Argentina, most products pay a duty of over 100 per cent; to only 20 per cent of the BTN items would an average surcharge or supplementary duty of 40 per cent or less correspond, and this proportion has been sharply reduced by the additional 40 per cent surcharge on machinery not produced within the country.

Table 5

SIMPLE ARITHMETIC MEANS OF APPROXIMATE INCIDENCE (IN *ad valorem* TERMS) OF DUTIES AND CHARGES APPLIED IN LATIN AMERICAN COUNTRIES AND UNDER EEC'S EXTERNAL TARIFF TO SELECTED PRODUCTS, BROKEN DOWN AS IN ANNEX I

Category and group	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Peru	Paraguay	EEC
Category I (51 products)									
<i>Primary commodities and capital goods</i>	96	134	58	64	35	32	18	69	13
1. Non-processed foodstuffs (13 products) ..	123	264	46	185	37	65	21	99	21
2. Industrial raw materials (10 products) ...	55	106	111	57	52	38	20	63	1
3. Capital goods (28 products).....	98	84	45	18	27	14	16	57	13
Category II (43 products)									
<i>Semi-manufactured and durable consumer goods</i>	139	143	96	48	56	58	25	84	10
1. Semi-manufactured goods (including fuels), other than products of traditional industries (32 products).....	95	80	98	28	48	28	23	77	7
2. Durable consumer goods (11 products) ..	266	328	90	108	80	147	30	104	19
Category III (31 products)									
<i>Current consumer manufactures</i>	176	260	328	247	117	114	72	77	17
1. Processed foods (14 products).....	192	280	436	359	145	110	41	76	19
2. Others (including semi-processed products of traditional industries (17 products) ..	163	244	239	154	76	117	98	78	15
<i>Over-all average</i> (125 products).....	131	168	138	112	62	61	34	76	13

SOURCE: See annex III.

NOTE: This differs from the three preceding tables in that the duties and charges applied by Brazil and Chile which are shown in annex III, and on the basis of which the average incidences given above were calculated, include the customs clearance rate (5 per cent for almost all products) and the higher cost of foreign exchange for imports in the special category in the case of Brazil, and the supplementary tax or cost of financing the prior deposit in that of Chile.

54. This basic characteristic of the tariff structure in most of the Latin American countries—i.e., the frequency with which very high duties and charges are applied not only to final consumer goods, but also to edible and industrial raw materials, capital goods and semi-manufactured products—is apparent in table 5, which sums up the situation revealed in annex III, giving the simple arithmetic means of the duties and charges applied to the products specified in the said annex, by groups and categories and in the aggregate.³⁷ For example, whereas for EEC the average of duties and charges by groups of products is lower than 20 per cent in every instance, with the single exception of the unprocessed foodstuffs group (where this level is just exceeded),³⁸ for the eight Latin American countries it is higher than 20 per cent in every case and for all groups, the only exceptions being the industrial raw materials group in Peru and the capital goods group in Colombia, Peru and Mexico. What is more, the average in question is more than 50 per cent for all groups in three countries (Argentina, Brazil and Paraguay) and for the majority

³⁷ The averages in question should be interpreted with caution, however, since they are based on a limited and insufficiently representative sample of products (affected in number and composition by such factors as the possibility of identifying them properly in the various customs tariffs and lists of supplementary duties and charges of the several countries concerned). Even so, within the limits indicated, these averages give an approximate idea of the order of magnitude of the duties and charges applicable in each country to each of the several categories of products. There are grounds for believing that if in computing the averages all products (in terms of BTN items) were taken into account, instead of only those included in annex III, levels higher than those appearing in table 5 would be obtained in any event (see, for example, the averages shown for Argentina in table 4, column III).

The discrepancies between the average incidences of import duties and charges shown in table 5 on the one hand, and in tables 2, 3 and 4 on the other, are largely attributable to the following factors: in the case of Brazil and Chile, the incidences are relatively much higher in table 5 because the higher cost of foreign exchange for products in the special category in the case of Brazil, and the supplementary tax or the cost of financing the prior deposit in that of Chile, were included. The relative decreases in the positions of Ecuador and Paraguay in table 5 as compared with table 2 and 3 seemed to be attributable to the fact that in both countries there are several fairly high additional charges that are uniformly applied to all or almost all products, so that in both the composition of imports affects average levels of incidence much less than in other countries. Exactly the opposite occurs in Mexico's case. This country's extensive use of the import licence (together with the narrower scope of its exemption régimes) tends to encourage imports of products on which the charges payable are relatively low; hence it is that the average incidences of duties and charges obtained for this country in tables 2 and 3 (where the composition of imports plays a preponderant role) are less, in relation to those of other countries, than the average shown in table 5.

³⁸ According to *Informations Statistiques*, op. cit., for each of the several categories of products, the average incidence of the common external tariff of EEC, weighted by the imports effected by member countries from third countries in 1958, is as follows:

	Percentage
Foods	15.1
Raw materials	0.1
Semi-manufactured products	7.0
Capital goods	12.8
Other fully manufactured goods	17.3
Total	7.6

The close correspondence, especially as regards relative orders of magnitude, between these averages and those given for EEC in table 5 can be noted in respect of each of the several categories of products.

of the groups in four others (Chile, Colombia, Ecuador and Mexico); Peru is the sole exception to this rule, and furthermore is the only one of the eight countries whose over-all average of duties and charges for the products included in annex III is lower than 60 per cent. Moreover, in these eight countries, the average incidences of duties and charges on products in the groups comprising durable consumer goods, processed foods and other current consumer manufactures is in all instances (except in Peru, in the case of the first two groups) higher than 75 per cent, and in the majority more than 100 or even over 150 per cent, whereas in EEC the corresponding average for these three groups does not exceed 19 per cent. In respect of the other four groups—unprocessed foodstuffs, industrial raw materials, capital goods and semi-processed products—the position is not quite as extreme, but even so, the average incidence of duties and charges is higher than 50 per cent in most cases.

55. Although it has been seen, in the tables analysed so far, that as a rule the average levels of import duties and charges in the Latin American countries are lower for raw materials than for semi-manufactured or intermediate products, and less for these latter than for manufactured goods, and that consumer manufactures are the most heavily taxed of all, these differences are not usually great enough, and exist not because the duties and charges on primary commodities are relatively low but because those on manufactured goods are exceedingly high. Consequently, in most of the Latin American countries there is no adequate differentiation between the import duties and charges applicable to products corresponding to various phases of a given production process (nor, as a rule, between those applicable to various products at one and the same stage of processing). Both in this respect and as regards the levels of such duties (whether averages or for individual products), there is a marked contrast between the situations prevailing in the Latin American countries on the one hand, and in the European countries on the other—for example, in EEC, whose external tariff levels are given in annex III, as well as in the last column of table 5 and in footnote 38, and in three European countries selected as being representative of appreciably different degrees of tariff protection, to judge from the data presented in table 6.

Table 6

IMPORT DUTIES IN THREE EUROPEAN COUNTRIES
(Percentages of value of imports, by groups or categories of products)

Category or group	United Kingdom	Kingdom of the Netherlands	Portugal
Raw materials	0	0 or 3 to 6	Up to 5
Semi-processed products..	0 to 15	10 to 12	Up to 15
Manufactured goods	15 to 20 ^a	15 to 24	Up to 30

SOURCE: United Nations Economic Commission for Europe, Committee on the Development of Trade, *Report on the Special Meeting on the Organization and Techniques of Foreign Trade* (TRADE/84), Geneva, 29 June-3 July 1959, annex IV.

^a Higher duties are payable on motor vehicles, clocks and watches, musical instruments, cinematographic films and products of the so-called "key industries", such as optical instruments, some chemical products and glass ware for scientific purposes. In these last-named groups the rate of the duty is usually 33 1/3 per cent.

56. In this connexion it must be pointed out that the protectionist or restrictive effect of a customs tariff derives not so much from the existence of high duties or of a high average level as from the tariff structure itself, and in particular from the differences between the duties applicable to products corresponding to the various stages of a single production process, as well as to different products at one and the same stage of processing: at a given average level, the greater these differences the more markedly protectionist is the tariff. In other words, the measure of the real or net protection accorded to a specific industry is given not by the level of the import duties applicable to goods it produces, but by the difference between those and the duties applicable to the inputs absorbed by the industry in question, and also by the ratio between that difference and the percentage of value added; given a certain difference, the lower the percentage of value added in the manufacturing process concerned, the greater is the net protection the industry receives.³⁹ Thus, heavy duties on raw materials or semi-manufactured products reduce the degree of real protection enjoyed by finished goods; and a tariff with standard duties for all products gives protection to none, but is equivalent to the application of a higher rate of exchange for imports, and consequently is purely fiscal in its effect.

57. The prevalence of high import duties and charges in the Latin American countries in respect of both raw materials and semi-manufactured and manufactured goods, and the consequent lack of adequate differentiation between such duties and charges would therefore seem to corroborate the opinion that their structure leaves much to be desired, and does not meet the requirements of a rational policy of protection. On the other hand, the situation described is apparently at variance with the statement made on several previous occasions to the effect that the protection accorded to domestic industries by the countries of the region is usually excessive and indiscriminate, since, according to the conclusions reached in the preceding paragraph, the real protection enjoyed by home industry must be substantially reduced by the high duties and charges on raw materials and intermediate products, as well as on capital goods. Admittedly, this is exactly what does happen in the Latin American countries in many cases (and instances of actually negative net protection can be found in respect of certain manufactured goods). But it should be noted that, as was mentioned in paragraph 53 above, many and perhaps the majority of the duties and charges applied in the countries in question to raw materials and other primary commodities are unnecessarily high, and have little or no effective impact on the internal price, which means that they do not affect the real protection enjoyed by the industry using them; and also that this real protection, apart from often being much greater than necessary (and thus depriving industry of the stimulus of competition from similar foreign lines of production) frequently benefits

³⁹ This point is discussed in greater detail in section D, which also states the formula for determining the percentage of net protection accorded to an industry, given the import duties applicable to the products which it uses as inputs on the one hand and to the goods it produces on the other, and the percentage of value added in the industry concerned. It should be pointed out here that this percentage of real protection is generally higher, and even in many instances a good deal higher, than the rate of the import duty or charge.

industries which are very inefficient, or do not give rise to any real saving of foreign exchange, or ought to be given a low priority under an economic development programme. Moreover, precisely on account of the consideration formulated a few moments ago, the protection accorded to these industries diminishes and even at times wipes out real protection for other more efficient or desirable industries whose inputs are supplied wholly or in part by the former group.

58. In conclusion, it seems fully justified to assert that the structure of import duties and charges in most of the Latin American countries is lacking in rationality, and to describe the protection habitually granted to domestic production as excessive and indiscriminate, since not only is it extended through extremely high duties and charges (supplemented in some countries by severe direct restrictions), but it has not as a rule been founded on selection of the industries that it is most expedient to protect in the light of criteria and objectives predetermined in accordance with a rational industrialization and economic development policy.⁴⁰ On the contrary, the industrialization and consequently the protectionist policy pursued in the Latin American countries has been predominantly based on an extempore import substitution process effected at any cost, and generally on the prevention or minimization of imports of whatsoever items are or could be produced in the country concerned, as well as of all products classified as luxury or non-essential goods.⁴¹ Instead of protection for the most efficient industries, what has often been provided is protection for inefficiency, in accordance with the principle that the less capable an industry is of withstanding foreign competition, the more protection it merits.

59. Apart from this, it must be remembered that the protection under discussion has been and still is commonly the outcome not of a deliberate decision to encourage this or that line of production, but of restrictions adopted as emergency measures for balance-of-payments reasons. Not only have no systematic endeavours been made to prevent or offset the protectionist effect of the

⁴⁰ See section D for some of these criteria and objectives.

⁴¹ It is this idea that imports of any good which the country produces or could produce should be prohibited that most commonly and systematically serves as a guiding principle for protectionist and import substitution policy in the Latin American countries. It is sometimes qualified, when provision is made through legal or administrative channels, to ensure that supplies of the domestically-produced article must fulfil certain requisites in respect of quality, quantity, delivery deadlines, etc.; but the application of these provisions is usually very flexible and of only relative practical efficacy. Furthermore, with rare exceptions, nothing is said of the price at which the domestic product can be obtained. By way of illustration, it may be pointed out that under the pertinent regulations the first of the stipulated conditions on which the Office of the Secretary of State for Industry and Trade, in Mexico, will authorize imports of goods for which a licence is required (as is the case with most items in that country's customs tariff) is that "the said goods cannot be replaced by domestically-produced substitutes". This stipulation is qualified later, elsewhere in the same regulations, since provision is made for cases in which the domestically-produced goods that might replace their counterparts from abroad are, in the opinion of the above-mentioned Office, insufficient to satisfy domestic consumption, or obtainable only on terms that are less favourable for the purchaser than those offered by imported goods as regards quality and delivery deadlines. It should be noted that no mention whatever is made of the price that has to be paid for the domestically-produced article, although according to some of the information received this factor is in practice taken into account by the Office, at least in certain cases.

restrictions in so far as it was undesirable or excessive, but also these restrictions have usually been perpetuated for specifically protectionist purposes (prohibitions and other quantitative restrictions being at most replaced by surcharges and other very high duties and charges), regardless of whether the industries emerging under their aegis are really desirable and represent a net benefit for the economy, and without any attempt to reduce protection to more appropriate levels.

C. THE EFFECTS OF PROTECTIONIST POLICY ON THE INDUSTRIAL STRUCTURE AND CAPACITY TO IMPORT OF THE LATIN AMERICAN COUNTRIES

60. It has repeatedly been pointed out that anxiety to relieve the chronic shortage of foreign exchange has induced many Latin American countries to pursue an industrialization policy essentially geared to import substitution; and that the substitution process has not been effected gradually, in accordance with a plan, and in anticipation of development requirements, but in makeshift fashion, frequently to meet emergencies, and on the basis of excessive and indiscriminate protection. Consequently, in many instances it has been carried a good deal beyond the economically advisable limits, with the result that serious distortions have been introduced in the economic structure of the countries concerned, and the development of more efficient and productive activities has been adversely affected, to the special detriment of export possibilities, as will be shown later.

61. In other words, although import substitution has played and will indubitably continue to play a pre-eminent role in the economic development of the underdeveloped countries in general and those of Latin America in particular, it is obvious that as a rule the substitution process has been put into effect without due regard to its implicit costs in terms of alternative uses of resources, and that the resulting industrial structures are characterized by lack of efficiency and high costs. The United Nations Economic Commission for Asia and the Far East notes this problem in the following passage: "The adverse effect on productivity of indiscriminate use of the policy (of import substitution) may then defeat the very purpose of growth in productive capacity: domestic production is not really a substitute for imports in the economic sense. It is also too narrow a point of view to conceive of import substitution in the static framework of the existing market. The mere exclusion of foreign supplies is a negative approach, and inadequate; the aim should rather be to enlarge the domestic market through a co-ordinated growth in income and output... This means that a proper growth policy must be based on something broader than mere import substitution. The dynamic effects of trade interference ultimately depend upon what happens in the domestic economy in the matter of investment and productivity."⁴²

62. Similarly, ECLA, although stressing the role of import substitution as a dynamic factor in the economic development of the Latin American countries, began to point out almost from the date of its inception that the substitution process was taking place extempore, as the result of emergency measures, and has consistently

emphasized the need for it to be effected on the basis of a far-sighted policy, advantage being taken of periods when foreign exchange is relatively plentiful to import capital goods, in accordance with a well-thought-out economic development programme, whose fundamental objective should be the more rational utilization of the scanty resources available for the acceleration of the country's development.⁴³

63. Thomas Balogh also underlines this problem with the remark that "in the absence of conscious planning and the encouragement during favourable times of import substitution, the process is likely to take place in periods of crisis, owing either to the failure of foreign supplies (e.g., as a result of wars) or to balance-of-payments difficulties and heavy political pressure". And he adds: "Thus it will be difficult to prevent the emergence of unnecessarily large profit margins as a result of the exploitation of newly-created monopoly power. It is not improbable that the degree of protection granted might be far greater than necessary merely to implement the changed structure of comparative costs through a suitable modification in the relationships between money costs and prices."⁴⁴ Attention has already been drawn here to this tendency to accord industry more protection than it really needs; a little later, reference will be made to the effects of such excessive protection.

64. The emphasis laid on import substitution, regardless of the limits beyond which, far from being advantageous, it is positively harmful for the country's economic development, has had its counterpart or logical complement in a policy of industrialization at any cost, based on the belief that industrialization and economic development are necessarily synonymous, and that every new industry implies a net addition to the domestic product and is intrinsically desirable and beneficial. It may fairly be argued that industrialization is on many occasions the most effective and sometimes the only medium of growth—especially when outward-looking development, stimulated by the export sector, is no longer a possibility—and that within fairly wide limits any expansion of industrial output does represent a net addition to the total product. But it cannot and must not be overlooked that this is true just in so far as industrial growth results in the more intensive and efficient utilization of available resources. It becomes a fallacy when industry is developed at the expense of other more productive activities, or when the establishment of a new industry has detrimental effects on others that are more efficient; for in such cases the expansion of industrialization signifies a decline in productivity and a decrease

⁴³ See, for example, the *Economic Survey of Latin America, 1954*, United Nations Publication, Sales No.: 1955.II.G.1, pp. 20-21. Subsequently, in the *Economic Survey of Latin America, 1956*, United Nations Publication, Sales No.: 1957.II.G.1, pp. 115-163, ECLA presented a detailed study and analysis of the effects of industrialization in the post-war period on the composition of imports and external vulnerability in Latin America. This was brought up to date, although in summarized form, in Part Three of the document entitled *Algunas características del desarrollo industrial en el período 1950-60* (E/CN.12/602).

In his article "Economic development or monetary stability: the false dilemma", ECLA, *Economic Bulletin for Latin America*, vol. VI, No. 1, March 1961, Raúl Prebisch also comments on the makeshift character of import substitution policy and the limits to the economicity of substitution on such lines.

⁴⁴ Thomas Balogh, "Economic policy and the price system", *Economic Bulletin for Latin America*, vol. VI, No. 1, op. cit., pp. 50-51.

⁴² ECAFE, *Foreign trade in economic development planning* (E/CN.11/DPWP.8/L.3), August 1963, pp. 16-17.

rather than an increase in the total product. Nor is it possible or permissible to disregard the fact that even within those industries whose development may generate such an increase, there is usually a range of alternatives, and if the desired end is to obtain the maximum increment in the product, it is the development of the most efficient industries that must be promoted.

65. A policy of industrialization and, more broadly, of economic development may and generally does also pursue other objectives, different from and even incompatible with that of securing solely or primarily an improvement in the efficiency of utilization of resources and an increase in the total product. But these objectives and their order of priority must in any event be clearly and rationally predetermined, and on them must be based the selection of the industries or lines of production whose development is to be encouraged. Naturally, care must also be taken to see that the measures adopted to promote the industries in question (in particular those of a protectionist nature) are not applied in such a way as to militate against the attainment of essential ends (e.g., greater efficiency in the utilization of resources).

66. That the foregoing considerations have not been duly taken into account in the import substitution and industrialization policies followed by most of the Latin American republics is evidenced by the excessive and indiscriminate protectionism which, as has been shown, the countries of the region commonly accord to their industries. Or rather, this kind of protectionism would seem to suggest that the sole or primary objective pursued through industrialization in Latin America is the attainment of self-sufficiency; for then, and only then, can any import substitution industry be regarded as admissible, and economic considerations be relegated to a secondary plane.

67. Among the effects produced by this type of protectionism on the industrial structure of the Latin American countries (effects which are, as might be expected, especially manifest—although in varying degrees of intensity—in the more highly industrialized of these economies), mention may first be made of the encouragement given by indiscriminate protection to the development of inefficient industries, as well as of some others to which a very low priority would be assigned under a rational economic development programme. Entrepreneurs have no inducement to select those activities which are most expedient or desirable from the economic standpoint, since cost considerations are of little significance when high prices can be charged.⁴⁵

68. Furthermore, as has just been pointed out, one of the basic principles of the protectionist policy frequently pursued in the Latin American countries is that the lower an industry's level of efficiency, that is, the less capable it is of withstanding external competition, the more protection it merits. What has thus been protected is largely inefficiency, with the result that in the countries of the region many industries have been de-

veloped which may be described as "hothouse" activities, inasmuch as they have germinated and survived only in the shelter of extreme and even total protection against the rigours of external competition.

69. In view of the relative shortage of resources, which is much more marked, at least as regards capital, in under-developed than in developed countries, industries whose priority or whose level of efficiency is low are often established with resources that might have been used for other more efficient or higher-priority activities, which consequently cannot be installed or developed. In other cases, the effect of the establishment of inefficient lines of production is to make other activities relatively inefficient, by compelling them to use raw materials or intermediate products obtained at a very high cost, or unsatisfactory from the standpoint of quality, specifications, and so forth.⁴⁶

70. In turn, the excessive protection extended to industries which do not need it, or need it in much lesser measure, has a very bad effect on their productivity, inasmuch as it deprives them of the incentive that might be provided by actual or potential competition from foreign products. In the majority, but above all in the more highly industrialized, of the Latin American countries, there are many industries which could produce efficiently, and even compete successfully with their foreign counterparts, but fail to do so for want of any inducement, since they can rely on having the domestic market reserved for them. In some instances this effect has been counteracted, at least in part, by the development of internal competition, when the market of the individual country concerned is broad enough for such competition to be effective; but in many other cases, especially when the domestic market is relatively narrow, the concentration of production in a few firms gives the latter monopolistic or oligopolistic powers which enable them to use the margin of protection they enjoy largely in order to sell at high prices and avoid taking any trouble to produce efficiently.

71. The foregoing situation has been aggravated by the over-diversification—not only of the whole range of manufacturing activities, but also within many individual industries, especially those producing consumer goods—to which indiscriminate protection, and the definite bias towards self-sufficiency frequently characterizing import substitution and industrialization policy, have often conduced. This lack of specialization substantially increases production costs and prevents the Latin American countries from making the best of their industries' possible advantages in respect of comparative costs, besides depriving them of the benefits that might accrue

⁴⁵ This point is emphasized by the ECLA secretariat in the *Provisional Report of the Seminar on Industrial Programming* (E/CN.12/663), paragraph 76, where it is also pointed out that "inflexibility in the formulation and application of protectionist policies (in Latin American countries) often resulted in preventing or hampering the establishment of new industries and, moreover, tended to perpetuate high levels of protection which, in turn, discouraged greater efficiency in production".

⁴⁶ An example is afforded by the duty of over 100 per cent levied in Argentina on imports of sulphur, in order to protect a small output produced at a very high cost. Hence, the price of sulphuric acid is three or four times higher in Argentina than on the international market; this in turn has a heavy incidence on the many chemical products based on sulphuric acid, and, of course, on the industries that have to use those chemical products as inputs. Similarly, the protection afforded in the same country to the caustic soda industry, by means of a 150 per cent duty (which is applied to an *aforo* or official price higher than the world market quotation, and therefore signifies a real surcharge of over 200 per cent) adversely affects the manufacture of soap and makes this industry relatively inefficient. Cases like this are extremely common in the Latin American countries.

from trade based on a broader and more rational division of labour.⁴⁷

72. Thus, the over-hasty and premature extension of the range of industries—all the more hasty and premature, in so far as the capacity to import has been inadequate, since in such circumstances the need to develop new import substitution industries is regarded as more urgent—has led to the establishment of industries whose technology is relatively complex (e.g., those manufacturing durable consumer goods), frequently in the absence of essential requisites (such as a broad enough market, a satisfactory infrastructure, etc.) for the attainment of appropriate economic dimensions and the achievement of sufficient external economies; and, furthermore, without adequate supplies of entrepreneurial talent, skilled manpower, and so forth, for whose training a relatively broad base of artisan industry is required, and a more gradual and selective industrialization process. In addition, the channelling of investment into new manufacturing activities has deflected resources from existing industries (and even from primary production), whose consolidation and modernization or re-equipment has thus become more difficult or more costly, if not altogether impossible. In their turn, the new industries, whose output (and profits) tend to increase rapidly during their import substitution period, soon reach a precocious “maturity” when the substitution process is completed, and can continue to expand only on the basis of an increase in domestic demand, at the peak of which they lapse into monopolistic indolence, with lower rates of profit, little investment and ageing plant and equipment.⁴⁸

73. Consequently, industrialization based on over-emphasis on import substitution and excessive and indiscriminate protectionism has caused severe distortions in the economies of many Latin American countries and

⁴⁷ This is evidenced in the low level of imports of manufactured consumer goods effected by the more highly industrialized of the Latin American countries; for example, registered imports (i.e., excluding contraband) of cotton textiles are practically non-existent, owing to the prohibitively high duties and other restrictions. As a result, the domestic textile industries have indulged in over-diversification and have forgone specialization, with the consequent adverse effects on their efficiency and export possibilities; cotton textiles, besides not being imported, are not exported either, except in marginal quantities. In contrast, the industrialized countries, whose textile industry is more highly developed and more efficient, not only export but also import large quantities of cotton textiles. For instance, the aggregate cotton textile exports of the countries members of the Organization for Economic Co-operation and Development represented 19.2 per cent of their output in 1959, and imports 17.2 per cent. In the case of the United Kingdom, the corresponding proportions were 22.8 and 39.2 per cent, respectively (see *Economic Survey of Europe in 1960*, United Nations Publication, Sales No.: 61.II.E.1, chapter V, table 17).

⁴⁸ See David Felix, *Monetarists, Structuralists and Import Substituting Industrialization: A Critical Appraisal*, a paper presented at the Conference on Inflation and Development in Latin America held at Rio de Janeiro from 3 to 11 January 1963. It is precisely to this process, characteristic of industrialization on the basis of import substitution, that Felix attributes the inability of even the more industrialized countries in Latin America to develop their exports, and the failure of the International Monetary Fund's stabilization programmes in Argentina and Chile, inasmuch as these programmes only accelerated the flow of investment—especially from abroad—towards the more complex industries, which offered better opportunities for immediate and substantial profits, so that the range of industries was still further extended at the expense of the existing and particularly the traditional activities, and of industries with export potentialities.

has conduced to an industrial structure characterized by inefficiency and high costs. But it is not only with regard to the efficient utilization of resources that the effect of this industrialization has been largely negative rather than positive; far from having contributed to the effective solution of some of the chronic problems besetting the Latin American economies, it has resulted in their aggravation.

74. This is strikingly true of the very problem to whose alleviation and solution the industrialization process has been primarily geared, through the stress laid on import substitution: that is, the bottleneck implicit in the inadequacy of the capacity to import and the consequent trend towards a chronic balance-of-payments deficit. For in the first place this type of industrialization has hampered and in many cases prevented the development of export industries, and has even adversely affected traditional lines of production for export in some important cases, over and above the effects of inflation, of exchange policies, of the lack of export incentives and promotion, and of the anti-export bias frequently displayed by development programmes. Secondly, it has not reduced requirements in respect of imports, but, on the contrary, has augmented them and altered their composition, giving them an increasingly rigid or inelastic structure which makes it difficult and disastrous to restrict them in emergencies.

75. In relation to the first of these points, it has already been mentioned that as a rule the Latin American countries have not endeavoured, by means of a sufficiently far-sighted long-term policy, to keep import substitution within the limits of the economically advantageous, and supplement it with the development of export industries,⁴⁹ but have confined themselves to acting under the pressure of emergencies (i.e., serious balance-of-payments deficits), through the adoption of measures within their immediate reach, namely, import restrictions, and the consequent encouragement of indiscriminate substitution of domestic production for imported goods. It has also been pointed out that this latter policy has introduced grave distortions in the structure of prices and of production, and has promoted the development of many relatively inefficient industries, whereas, directly or indirectly, it has had an adverse effect on other industries, existing or potential, which might be efficient enough to export on a competitive basis. In other words, in response to the pressure of trade deficits, action has been taken with respect to only one term of the equation—imports—and systematic action with respect to the other term—exports—has been neglected. The alternatives of developing export industries as against developing import substitution industries have never been properly weighed. On the contrary, in some countries (e.g., Argentina) industrialization was deliberately promoted during certain periods at the expense of the more productive traditional export activities, while no attempt was made to replace these by developing other export lines.

⁴⁹ This means, *inter alia*, carrying import substitution to the point at which the development of new lines of production to replace imports would require more capital and labour than the production of goods of export to the value of the foreign exchange saving that would result from the contemplated substitution (see the suggestions formulated in this context towards the end of the following section).

76. Furthermore, precisely because the import substitution process has as a rule been indiscriminate, the industries established have not necessarily, or even in the majority of cases, been those that might have generated the maximum saving of foreign exchange. In fact, it has been by no means unusual for the industries installed to produce no real savings whatsoever, and even to result in dissavings, because the value of the inputs imported for the new industries turned out to exceed that of the goods replaced by domestic production. The positive balance would be much smaller, or the negative greater, if the direct effects produced on specific exports by the establishment of a given import substitution industry were also taken into consideration—for example, the decrease in exportable balances of raw materials used by the industry in question; the impossibility for industries to continue exporting when their production costs were considerably increased because they were compelled to use inefficiently manufactured inputs of domestic origin; and so forth.

77. At the same time, as has also been pointed out, industries that might be efficient enough to export have been deprived of the incentive of competition by excessive and even unnecessary protection, and have been allowed to become relatively inefficient. Even in cases—which in spite of everything are fairly numerous in the Latin American countries at a relatively more advanced stage of economic development—where industries do produce at costs that would permit them to compete with their foreign counterparts (especially if marginal production costs are taken into account), the fact that industrialization policy is geared entirely to the domestic market, the snug position in the reserved home market enjoyed by entrepreneurs, the lack of a clear-cut and systematic policy of incentives to industrial exports—which, on the contrary, are often discouraged by over-stringent restrictions and controls, especially of an administrative type—and other similar considerations have prevented or hindered entrepreneurs from becoming export-minded. The vast majority of them are inclined, as is natural, to prefer the reserved and protected domestic market to the risks and the keen competition of export markets and the efforts required to gain a foothold in these. Moreover, Latin American entrepreneurs suffer from a pronounced inferiority complex with regard to their chances of competing successfully on foreign markets, which is no doubt very largely imputable to the fact that in the domestic market they can rely upon a degree of protection usually far higher than they need.

78. To the above-mentioned obstacles is frequently added another constituted by exchange rates based on over-valuation of the currency, which used commonly to result—at any rate for certain categories of products—from multiple exchange rate systems, and which nowadays are mainly, although not exclusively, found in countries where there is inflation, primarily because of the practice of stabilizing the exchange rate for lengthy periods while the internal level of costs and prices is continually rising. Artificially high exchange rates of this type have effects similar to those of an export duty, and although the systems of single exchange rates now prevailing in almost all the Latin American countries are applied to all exports alike, their unfavourable repercussions are stronger in the case of those lines of production in which the countries of the region are relatively less efficient, i.e., manufactured goods. It is not

uncommon, however, for even traditional exports to be hampered, and at times actually prevented, by the application of exchange rates based on over-valuation of the currency, particularly under systems of multiple exchange rates.⁵⁰

79. While it is true that in some circumstances and on some products an export duty is recommendable and even necessary, and that the mechanism of multiple exchange rates may constitute a flexible and convenient technique for taxing exports on a selective basis, the abuse of this practice has defeated its own ends.⁵¹ Its effects are still more serious when exports are uniformly and indiscriminately taxed through single exchange rates based on over-valuation of the currency, since this handicaps not only the expansion but also the diversification of exports, by stopping the outflow of new products which could be offered on foreign markets at competitive prices if the exchange rate were more favourable and more realistic.⁵²

80. The adverse effect of the foregoing factors (indiscriminate import substitution, over-protection of domestic industry, maintenance of artificially high exchange rates, etc.) on the expansion and diversification of the Latin American countries' exports is apparent in the very low level of exports of manufactured goods from the region, despite the considerable degree of industrialization attained by some of the countries concerned. For example, in 1959-60 exports of fully manufactured goods⁵³ aver-

⁵⁰ The inflationary process has an adverse effect on exports of manufactured goods not only as a result of the stabilization of the external value of the currency while its internal value is continually depreciating (a problem that could be solved through a more appropriate and rational exchange policy), but also on account of the general atmosphere of uncertainty to which inflation gives rise, and which discourages efforts to secure a foothold in foreign markets. Moreover, inflation encourages speculative activities at the expense of productive activities, and makes for decapitalization, in respect of both basic social capital and the fixed capital of industries, whose equipment becomes obsolete and inefficacious.

⁵¹ From the standpoint of imports, the misuse of multiple exchange rates has played an extremely important part in introducing or aggravating distortions in the structure of prices and production in many Latin American countries, and has been one of the main instruments for the promotion of indiscriminate import substitution, as was pointed out in section A.

⁵² See Roberto de Oliveira Campos, "Two views of inflation in Latin America", *Latin American Issues*, A. Hirschmann, Twentieth Century Fund, New York, 1961. The author of this article points out that in practically all the Latin American countries where inflation exists, development programmes have shown an anti-export bias, especially in Argentina and Brazil and, to a somewhat lesser extent, in Chile; and he suggests that these two factors—inflationary policies and anti-export development programmes—have seriously aggravated the problem of the inadequacy of the capacity to import in the countries concerned. Thus, he attributes the severe contracting of the capacity to import in the cases of Argentina and Brazil to the following causes: (a) over-taxation of exports through multiple exchange rates or price distortions; (b) a misguided import substitution policy; and (c) mistaken procedures for the financing of the import substitution in question. Mexico and Venezuela, on the other hand, whose development policies have not taken this anti-export line, have not been troubled by serious limitations of their capacity to import.

Raúl Prebisch, too, in the article previously cited, underlines the fact that the import substitution process as it has taken place in Latin America has discriminated against exports. See also David Felix, *op. cit.*

⁵³ On the basis of the classification of export commodities under primary (or crude), processed or semi-manufactured, and fully manufactured products adopted in the *World Economic*

aged barely \$8.7 million in the case of Argentina, \$10 million in that of Brazil, \$5 million in that of Chile (newsprint) and \$31.4 million in that of Mexico (average for 1958-59; this figure includes some important items—e.g., \$5 million for aircraft—which are obviously re-exports). In contrast, during the same years Australia's exports of fully manufactured goods amounted to \$108 million. Again in 1961, exports of semi-processed and semi-manufactured articles (excluding processed or prepared foodstuffs, non-ferrous metals and fuels), classified as products of light industries and products of heavy industries, were as follows (in terms of millions of dollars): (a) products of light industries: Argentina, 3.1; Brazil, 5.4 (2.2 of which correspond to textile goods, mainly yarns); Mexico, 51.5 (34 for textiles, mainly yarns); Australia, 52.8 (mainly miscellaneous manufactured goods, classified in chapter 8 of SITC); (b) products of heavy industries: Argentina, 35.8 (23.4 representing quebracho extract and casein); Brazil, 35.4 (mainly chemical products such as alcohols and essential oils); Mexico, 58.6 (approximately 50 per cent constituted by chemical products, especially hormones); and Australia, 199.4 (75 corresponding to iron and steel in various forms, 39 to machinery and 29 to transport equipment, particularly motor vehicles).⁵⁴

81. On the import side, the indiscriminate encouragement of the substitution process through a markedly autarkical policy has brought about changes in the composition of imports which have imparted an increasing rigidity to their structure, inasmuch as imports of non-processed consumer goods and of non-essential products have been considerably reduced, and in some countries almost entirely eliminated, whereas external purchases of goods essential for economic activity have increased, by virtue of the substitution and industrialization process itself. In several Latin American countries where this process has reached a more advanced stage—e.g., in Argentina and in Brazil—imports are almost entirely confined to a few essential items for direct consumption (foodstuffs) and production goods (raw materials, fuels, semi-processed or intermediate products, and capital goods); and even where production goods are concerned, imports have had to be cut down to the minimum indispensable for the maintenance of economic activity, owing to the stagnation of exports.

82. The extreme rigidity in the structure of imports places domestic industry in a highly vulnerable position vis-à-vis fluctuations in the available supply of foreign exchange; for any reduction of imports to meet critical external imbalances can only be achieved by restricting external purchases of goods that are essential for production, with the consequent harmful effects on economic

Survey 1961, United Nations Publication, Sales No.: 62.II.G.1 (see note to table 1.24 in that document). Accordingly, manufactured goods, are not taken to include preserved foods and other food preparations, petroleum derivatives, chemical and pharmaceutical products (e.g., quebracho extract and casein), yarn, iron and steel, copper and other metals in bars, plate and other primary forms, etc.

⁵⁴ Statistics taken from GATT, *International Trade 1962*, Geneva, 1963, appendix, tables C-1, C-3, C-5 and C-11.

Another case in point is the contrast between the almost complete absence of exports of footwear from Argentina, and the development of Italy's exports of these goods, whose value rose from a very small figure at the beginning of the fifties to \$113 million in 1960, and, in 1962, to \$143 million, distributed as follows: \$50 million to other EEC countries, \$39 million to States members of EFTA and \$38 million to the United States.

activity. Limited supplies or an increase in the prices of imported materials, parts, spare parts, machinery, etc. compel industries to lower their level of output and to operate with an unduly wide margin of idle capacity, or preclude their re-equipment or expansion.⁵⁵ Moreover, the supplies in question are erratic and unreliable (especially when imports are subject to licences and other direct controls or restrictions), since they may be suspended or impeded at any moment by balance-of-payments problems, and this creates a climate of uncertainty and instability in the world of industry. Consequently, many firms take advantage of periods when foreign exchange is relatively plentiful and import policy is easy-going to expand their purchases of equipment at a rapid rate or to pile up stocks of imported materials in quantities much greater than they normally need; a procedure which, besides raising their production costs, results in an unduly large volume of imports and speeds up the advent of external disequilibrium.

83. Thus, the way in which the import substitution and industrialization process has been carried out in a number of Latin American countries has aggravated the bottleneck represented by the lack of capacity to import and has intensified instead of mitigating the external vulnerability of the economies concerned,⁵⁶ partly because the process in question has discriminated against exports, and partly because it has itself introduced a growing element of rigidity in the composition of imports, that is, has increased the difficulty of restricting their volume in emergencies.

84. In contrast with a frequent contention which is indeed implicit in the economic development policies of most Latin American countries, the limitation of the capacity to import is not a phenomenon entirely unconnected with development, nor is it a factor of exclusively or primarily external origin; except over the very short term, it is essentially the outcome of deliberately anti-export policies, based on import substitution and industrialization at any cost, on excessive and indiscriminate protectionism, on internal inflation combined with external devaluation, and so forth. It is the adverse influence of such policies on the efficient allocation of resources and on the development of production for export, and, more generally, the severe distortions they have introduced in the structure of prices and production, that are indubitably the chief or among the chief causes underlying the stagnation or what may even be described as the wane of economic development in several Latin American countries during recent years.

85. These distortions and bottlenecks, the unduly high cost at which import substitution has been effected, the inefficiency and the heavy costs characterizing the struc-

⁵⁵ This was made abundantly clear, for example, by Argentina's experience in 1962, when the depletion of foreign exchange reserves led not only to a severe devaluation of the currency, but also to the imposition of high additional surcharges on all imports, including raw materials, parts and spare parts, machinery not produced in Argentina, etc.

⁵⁶ Furthermore, this external vulnerability is of a different type from that traditionally affecting the Latin American economies; for whereas the impact of external fluctuations was formerly most direct and most marked in the case of export industries and consumption of imported goods, nowadays it makes itself felt directly and immediately in the industries producing for the domestic market, and thus affects a much wider range of economic activities.

ture of industry, and other allied factors, have also played a vital part in generating the inflationary process which is chronic in some Latin American countries, especially in those cases where, as seems to be true of Argentina and Chile, the process is due to costs inflation. And it is further stimulated by the excessive protection accorded to domestic industry, since the absence of competition resulting from the complete reservation of the domestic market and the monopolistic or semi-monopolistic powers enjoyed by many enterprises permit and encourage uncontrolled price increases.

86. As long as the Latin American countries continue to grant their industries excessive and indiscriminate protection, any measures they may adopt to combat inflation will prove relatively inefficacious and even self-defeating, since the mere restriction of credit reduces the tempo of economic activity but does not bring down prices. These, on the contrary, are pushed yet farther upwards, since the decline in production, by aggravating the operational inefficiency of industries, leads to still greater increases in costs. At the same time the lack of external competition enables industry to transfer any cost increment to prices, even magnifying it on occasion.

87. While it is true that import substitution necessarily brings about a rise in prices, and that protectionism conduces, by definition, to the inefficient allocation of resources, those higher costs and this inefficiency, as well as the bottlenecks and distortions in the structure of prices and production, might on the other hand be reduced to reasonable levels and temporary status by virtue of a far-sighted and properly programmed substitution policy, and protection on rational lines. Moreover, industrialization would not then militate against the export trade, but on the contrary, would stimulate it, since the development of efficient industries would be promoted. In the following section a procedure is suggested for drawing up a rational protectionist tariff precisely to that end: promotion of the development of the more efficient industries.

D. THE DRAWING UP OF A RATIONAL PROTECTIONIST TARIFF: CRITERIA FOR SELECTING INDUSTRIES TO BE PROTECTED AND FOR FIXING TARIFF LEVELS

88. The starting point and also one of the fundamental principles for drawing up a rational protectionist tariff is that customs duties must be fixed in such a way that the tariff level is the expression of the Government's protectionist policy (which, in turn, expresses its industrial and commercial policy), to which the private sector of the economy must adapt itself.⁵⁷ Consequently, in order to frame and give effect to a rational protectionist policy, the Government must determine, in the light of national objectives for the general distribution of resources according to the economic policy adopted (e.g. between production for investment and for consumption, production for import substitution or for export, etc. in order to achieve a certain rate of economic development, a certain degree of stability, an adequate balance between imports and import capacity, etc.), the general or average tariff level which it is ad-

⁵⁷ This principle is precisely the converse of that followed hitherto by the great majority of Latin American countries which, as indicated in earlier sections, consists fundamentally of fixing import duties in such a way as to meet the protection "needs" of each industry, however inefficient it may be.

visible to establish, and must decide how to allocate among specific industries the protection resulting from the tariff level. In other words, what has to be determined is which industries must be protected, and to what extent, in order to ensure that the objectives of the general economic policy are achieved. Here an attempt will be made to determine the procedure and criteria for achieving the most adequate distribution of protection.

89. The question of determining which industries should be protected, and to what extent, can only be posed and solved in terms of another, more generic, problem which is fundamental to any economic system: how to ensure "optimum" distribution or allocation of the resources (both actual and potential) available to the country.

90. Although there are distinct criteria (some of them conflicting with others) for identifying an optimum allocation of resources, the most important and most generally applied criterion is no doubt that of efficiency, the aim being to obtain the highest possible output. According to this, the optimum allocation of resources requires, from the economic point of view, that the industries which should be protected and stimulated are those representing the most efficient utilization of such resources. Although this criterion is not sufficient in itself to determine the optimum allocation of resources, it will be taken as a starting point and as a standard or guide for solving the problem of deciding which industries should be protected, and to what extent. Other criteria, some of which are aimed at objectives other than the maximization of output, will be mentioned later, as they can clarify or make more effective, supplement and sometimes modify the criterion of efficiency. Thus, if taken into consideration they may cause the rates of duty determined on the basis of the initial criterion to be changed.

91. As will be seen, the identification and proper application of such criteria requires a measure of economic planning while remaining within the bounds of an economy based on free enterprise (to which the following analysis will necessarily be limited),⁵⁸ so that the criterion of efficiency can, at least theoretically and within certain limits, be applied automatically, with a minimum of governmental interference and of decisions concerning specific industries, through the free play of the price system in the manner indicated below.

92. From the economic point of view and in accordance with the basic criterion under consideration the optimum allocation of resources requires that the industries to be protected should in principle and as a general rule be the most efficient. But these are precisely the industries which least need protection. They can be

⁵⁸ The case of a socialist economy (the so-called "centrally planned economies") will not be considered here because in those countries imports are entirely in the hands of the State or of State agencies, and thus the customs tariff cannot act as an instrument of protection—or at least not in the same way as in a free enterprise economy—since imports are made according to the needs of national economic planning. The purpose of a customs tariff in a socialist economy would not be protection; it might serve as an instrument of social accountancy, as a measure for collecting resources for investment, or to facilitate the differential treatment of imports according to origin (by way of illustration, see the official or semi-official statements made concerning the new customs tariffs introduced in the second half of 1961 in the Soviet Union and in Hungary, which may be found in the *Economic Bulletin for Europe*, vol. 14, No. 1, United Nations Publication, Sales No.: 62.II.E.7, p. 53).

identified more or less automatically by establishing a *uniform level of net protection*. Efficient industries will find this level adequate, and will be able to develop, while inefficient ones, for the very reason that they require higher levels of protection in order to exist, will be unable to establish themselves or will tend to disappear. Such a procedure fulfils the basic principle that the tariff level reflects the government policy to which the private sector of the economy must adapt itself, while at the same time, automatically and within the criterion of the most efficient use of resources, it solves the problem of selecting the industries to be protected, i.e., the problem of the optimum distribution of tariff protection between the various types of products and sectors of production. It may be said that a process of "natural selection" takes place, which enables efficient industries, but not inefficient ones, to survive.⁵⁹

93. It will be observed that reference has been made to a uniform level not of duties or charges but of net protection. This is the protection actually received by a given industry in connexion with its processing or manufacturing activities as represented by the cost of such manufacturing, i.e., by the value added by the industry. Inasmuch as the import duty applies to the total value of the product, the level (in percentage terms) of effective protection which the duty implies for the industry is usually greater, and in many cases appreciably so, than the percentage or rate thereof.⁶⁰ Consequently it is determined not only by the amount of the rate but also by the proportion of value added by the industry (cost of processing or manufacture) in

⁵⁹ In this connexion see the report of the Swedish Customs Tariff Commission on the revision of the Swedish tariff, presented in May 1956 (*Revision of the Swedish Customs Tariff*, Stockholm 1957). The revision of the Swedish tariff was carried out precisely on the basis of affording uniform net tariff protection for all classes of products.

The uniform level of net protection in principle prevents any distortion in the price structure as a result of protection, or at least keeps it to the minimum. Of course, if there are any protected industries, the distribution of resources will not be the same as it would be without such protection. Without protection, or with free trade, and on the assumption of perfect competition and full employment, the resources would be used in the industries which offer the greatest comparative advantages to the country; that is to say, the selection of industries would be made automatically on the basis of comparative costs (in relation to industries in other countries). Conversely, where there is protection, industries develop which—at least in the initial stages—cannot offer comparative cost advantages. The criterion of efficiency referred to above is not therefore synonymous with the most efficient use of the resources which would supposedly take place in a system of free trade, but is fairly close to it or at least does not differ excessively.

⁶⁰ This will occur whenever the duty applied to the manufactured product is higher than the duty established for the raw materials and intermediate products used in its manufacture (in other words, whenever $D > d$ in the formula shown above), which must furthermore be the general rule in a rationally constituted tariff, except in those exceptional cases in which it is considered justified to afford greater protection for the production of the raw material than for the processing of the product. But even in such exceptional cases, care must be taken to avoid *negative* protection of the manufactured product as would occur if the proportion or relation between the duty on the raw material and that on the manufactured product were greater than the proportion between the value of the raw material and the total

cost of the product (in other words $\frac{d}{100-V} > \frac{D}{100}$ in the formula

shown above). In such cases it would prove more advantageous to import the processed product than to produce it domestically.

the final price of the product, and by the charge applied (and actually levied) on imports of the raw materials and intermediate products used by it, in accordance with the following formula:

$$P = \frac{100(D-d)}{V} + d$$

where

- P is the percentage of effective protection on the processed or manufactured product
- D the rate of duty applied to the importation of the said product
- d the rate of duty applied to the raw material when imported
- V the percentage of value added (cost of processing or manufacture in relation to the final value of the product)

94. Accordingly, the formula for determining the duty D which must be established on imports of the processed or manufactured product in order to afford protection P to the domestic industry is:

$$D = \frac{PV}{100} + \frac{d(100-V)}{100}$$

In this $\frac{PV}{100}$ gives us the net protectionist part of the duty

(which, as may be seen, is directly proportional to the $\frac{d(100-V)}{100}$ percentage of value added) and $\frac{d(100-V)}{100}$ represents

the part corresponding to the compensatory duty, i.e. the amount by which the net protectionist part of the charge must be increased in order to compensate the industry for the higher cost of the raw material or intermediate products in the event that imports of these are also subject to duty. Accordingly, the compensatory duty is equivalent to the incidence on the final cost of the product of the charge levied on imports of the raw material and intermediate products. If this charge is zero (duty-free import) or if the raw material used is produced domestically at international prices (e.g., wool or leather in Argentina)⁶¹ the compensatory duty would also be zero, since the manufacturer would obtain supplies at the same prices as would foreign producers.

95. Thus if one wishes to give a certain industry an effective protection of 30 per cent (which would permit it to develop provided its processing or manufacturing costs do not exceed by more than 30 per cent those of similar foreign industries), and the value added by it represents 70 per cent of the final value of the product,

⁶¹ Wherever reference is made to the elaboration of a rational tariff, it is assumed that if the country produces the raw material at international prices (as would usually be the case if this raw material were normally exported), imports thereof will not be subject to duty since in principle the duty would be without purpose or effect. Conversely, if imports of the raw material are subject to duty, whether for fiscal or protectionist reasons, it will result in a higher effective price for the user.

In order to permit the development of efficient industries, imports of raw materials should as a general rule be duty-free, or if subject to charge then the duties should be low (e.g., not in excess of 5 or 10 per cent) in the case of those whose domestic production requires protection. Otherwise the costs of the industries could be increased unduly.

while the raw material used is subject to a 10 per cent duty, then the customs duty on the processed product would have to be fixed at 24 per cent: 21 per cent corresponding to the net tariff protection, plus 3 per cent of compensatory duty. If the value added were only 15 per cent, the import duty need be fixed at only 13 per cent (4.5 per cent of net tariff protection, plus 8.5 per cent of compensatory duty). On the other hand, if the value added amounted to 90 per cent, the duty would have to be 28 per cent (27 per cent of protection plus 1 per cent of compensatory duty).⁶²

96. In undertaking the uniform distribution of protection, the first problem to be solved is to determine or fix the value of P , i.e., the *normal coefficient of protection* or the general level of effective protection which the Government is as a rule disposed to grant to the industry (and which in the examples given in the preceding paragraph is 30 per cent). How far, up to what level or degree of relative inefficiency can there be justification for support, through protective measures, of industries which could not survive in conditions of full competition with similar foreign industries? Is it desirable from the economic point of view, and as a general rule, that industries whose manufacturing costs are more than 20, 30 or 50 per cent higher than those of similar foreign industries should be protected?

97. This level, which constitutes the primary expression of the protectionist policy to be followed by the Government, must be determined on the basis of the Government's general economic policy and, in particular, its industrial policy, and having regard to the peculiar characteristics and stage of development of the national economy. The most that can be said in this connexion is that a fairly high level (and this, all too often, is the case of most of the Latin American countries) can result in an excessive flow of resources into relative inefficient activities, to the detriment of the general level of productivity of the economy, while a fairly low level may severely limit the process of industrialization.⁶³

98. The determination and use of a normal coefficient of protection as a basis for drawing up the customs tariff is closely linked with an argument in favour of protectionism which has been fairly popular in recent years, mainly in order to justify protection in a developing country. This contention, which is an amplification or generalization of the argument based on the necessity or desirability of protecting new industries, is that in a country where industrial development is just beginning (i.e., in what is termed a "young" economy) new industries find it difficult to compete, not so much because

⁶² On the assumption that as a rule d is less than P in the formula given above (since at least in an under-developed economy, production of raw materials usually requires less protection than that of intermediate products which in turn requires less than that of finished products), the sum of the protectionist duty plus the compensatory duty, i.e., the total charge applicable to the manufactured product, will also as a rule be less than the percentage of effective protection granted—in other words $D < P$. Thus, in the examples given above, the rate of duty needed to afford effective protection of 30 per cent to a product will be less than 30 per cent whenever the raw materials and other components are liable to an import duty of less than 30 per cent.

⁶³ Thirteen per cent was the usual coefficient of protection used by the Swedish Tariff Commission for computing the normal rates of duty in the preparation of the Swedish Draft Customs Tariff in 1956. Swedish Customs Tariff Commission, op. cit., p. 49.

of their own inefficiency as because of the general inefficiency of the economy itself as a result of its state of under-development so that the general level of productivity (particularly in the industrial sector) is lower than that of the developed economies. This general inefficiency of the young economies is due to factors such as deficiencies in the infra-structure or basic social capital (inadequate transport facilities, shortage of electric power, etc.), low purchasing power in the community (limiting the market for the majority of manufactures), absence of a properly organized capital market, high cost of credit (caused by lack of confidence in industry, insufficient credit facilities, etc.), inefficient marketing and, basically, low capitalization, i.e., low amount of capital per person employed, shortage of managerial skills and qualified manpower, etc. This general state of under-development and relative inefficiency of the economy, as well as the absence of other factors making for external economies by which industries in a developed economy benefit, results in lower productivity and therefore in a higher over-all level of costs for industrial activities there which consequently, in order to develop, require a sufficient over-all level of protection to offset the incidence of the factors mentioned above.

99. According to this, the normal coefficient of protection should fundamentally represent an approximate quantification of the average impact which the lower efficiency of a developing country's economy as a whole, as compared with the economies of the industrialized countries, has on the production costs of industries in the country concerned.

100. In principle, the same effect could be achieved by modifying the rate of exchange since a devaluation is equivalent to a uniform charge on all imports and also a uniform subsidy on all exports. In other words, the difference between the general level of productivity of a young or under-developed economy and that of a developed or industrialized economy is reflected in differences in the financial costs of the respective industries at a given rate of exchange, differences which could be offset by a change in the exchange rate.

101. Adjustments in the rate of exchange, however, are not always practical or desirable. Where the young or under-developed economies are relatively inefficient in industrial production and not necessarily in primary production, an area in which they can be—and in the majority of cases are—relatively efficient, particularly in the sectors geared to the export trade. In these cases a measure having so uniform an impact as devaluation may not be the most appropriate instrument for correcting differences in productivity affecting only part of the economy (unless a selective devaluation is made, by means of multiple exchange rates, which requires the use of direct controls, with all their concomitant problems and disadvantages). Moreover, devaluation would be of special benefit to the exporting sectors, which in many cases are controlled by foreign interests, or it could cause a drop in the international price of exports, and hence a deterioration in the country's terms of trade.⁶⁴

⁶⁴ Some of these objections (e.g., the drop in prices of export products and consequent deterioration in the terms of trade, with its adverse effects on capitalization) arise with respect of the procedure for off-setting lower productivity by lower wages. This procedure would also be impracticable for political and social

102. Through the use of the normal co-efficient of protection, on the other hand, an element compensating for the general differences of productivity as between the under-developed and the developed economies can be introduced in those very sectors where such compensation is really necessary, i.e., the industrial sector. Furthermore, as will be seen below, it enables adequate consideration to be given to cases in which additional or special protection is justified for certain branches of production, or where less protection would be justified for others. But this in no way implies that the importance of the rate of exchange is not recognized; on the contrary, both the determination and the use of the normal co-efficient of protection implies, as an essential prerequisite, that the rate of exchange must be so adjusted as not to cause undue inflation in the cost level in terms of foreign currency (as happens with an overvalued rate of exchange)⁶⁵ and which at the same time ensures normal equilibrium in the balance of payments at the tariff level selected.⁶⁶

103. Once the normal coefficient of protection to be applied in drawing up the customs tariff has been determined, the procedure indicated above should be applied to calculate *the normal rates of duty* (on the basis of the percentage of value added by each industry and of the import duties chargeable on the raw materials and intermediate products) which, as was shown, consist of net tariff protection plus compensatory duties, and represent a uniform level of protection for the different industries.⁶⁷

104. These normal rates of duty are not, however, necessarily decisive or final but may be subject, in certain cases, to adjustment either upwards or downwards, in order to grant special protection to some industries or reduce the protection given to others. In other words, the duties to be fixed definitively in the customs tariff may not in all cases, and perhaps even in an appreciable number of cases, be the normal rates. However, the normal rates are always taken as a point of reference in establishing these duties.

105. The revision and modification of the normal rates of duty (and accordingly any deviations from the principle of uniform distribution of protection) may be justified on practical grounds (including those of a political and social nature as well as those of a strategic kind, e.g., preparations for an emergency) or alterna-

reasons, further reduce the domestic market for manufactured products and render more difficult the creation of an adequate supply of skilled manpower, etc.

⁶⁵ In this connexion see the concept of a "neutral" rate of exchange in the study on "Customs duties and other charges and restrictions on imports of Latin American countries, and their average levels of incidence", in *Multilateral Economic Co-operation in Latin America*, op. cit., paragraphs 34-39.

⁶⁶ The application of import restrictions for balance-of-payments reasons is briefly considered below, in terms of its protectionist effect.

⁶⁷ The computation of these normal rates of duty is a complicated matter and requires extensive and detailed information. Part of this can be obtained from industrial censuses and from specialized organizations and publications, but most of it must be furnished by the industrial sector itself as regards the various cost components of production in each industry, so that the cost of manufacture or value added in each one, and the raw materials and intermediate products used, can be determined. In Annex I a simplified and relatively uncomplicated procedure is suggested for determining such normal rates with an acceptable degree of accuracy.

tively by reason of essentially economic considerations aimed at achieving a better distribution of resources than would automatically result from the uniform level of protection.

106. Justification on practical grounds implies the recognition that, however rational one might wish the customs tariff to be, it is not drawn up in a vacuum, and the *de facto* situations, distortions and vested interests already existing in the economy cannot be ignored. Thus, when the level of some existing charges in the current tariff is appreciably higher than the normal rates, it may be prudent to raise the latter somewhat so as to avoid unduly sharp adjustments, or at least to resort to the procedure of fixing variable duties which can be reduced gradually but automatically until they reach the desired level.⁶⁸ In general, however, practical or political considerations cannot by definition be taken into account in the elaboration of a rational protectionist tariff. The most that can be said here in this regard is that changes in the normal duty rates made solely or essentially to protect vested interests or which in any other way militate against the more efficient use of resources, should be limited as far as possible both in number and in degree.

107. The economic considerations which may justify changes in the normal duty rates, have in common the fact that they imply a denial that the free play of the price system can automatically bring about the optimum use of resources from the purely economic standpoint, and that the only industries which can develop under uniform protection are the most economically efficient and suitable industries, or that those which cannot develop or survive with that protection are the most unsuitable ones (also from the economic standpoint).⁶⁹ Some of these considerations also mean that the criterion of efficiency (at least as a static concept, under present conditions and with reference to industries taken in-

⁶⁸ In the case of the majority of Latin American countries the principal obstacle to the elaboration and implementation of a tariff affording rational protection, in other words one that contains relatively moderate tariff levels based on the principle of uniform protection, is that the adoption of such a protectionist policy would imply a radical change in the policy applied so far and would bring about violent changes in the economic structure because the latter suffers sharp distortions resulting mainly, as seen in earlier sections, from protection which is usually extreme and indiscriminatory. On the other hand, this same situation makes it even more urgent that measures be adopted to eliminate or reduce these distortions, in particular by means of the rationalization of protection. In order to achieve this and at the same time avoid violent and sudden changes which would be economically and socially costly and would meet with possibly insurmountable resistance on the part of vested interests, it is suggested that the tariff, once rationally drawn up, should be made effective gradually, for example over a period of five years. In other words, the tariff levels to be effective at the end of five years would be fixed and announced, and the difference between the existing level of duties for a given product and that established in the new tariff would be automatically reduced by 20 per cent per annum.

⁶⁹ As an economic argument which might justify fixing a customs duty higher than the normal rate, it can hardly be contended that greater protection would be needed to maintain a given industry at its present level. At any rate that would not in itself be a sufficient reason (except perhaps from the political and social point of view) since such a necessity merely indicates that the said industry should be considered as relatively inefficient and that it is therefore desirable (from the economic standpoint) that it should disappear or reduce its activities, unless the desirability of its survival is based on other economic consideration.

dividually) cannot alone provide a sufficient basis for determining the optimum allocation of resources. Even supposing that price levels provide an adequate indication of the relative shortages (which, as will be shown below, does not occur in many economies, particularly the under-developed ones), such prices reflect current conditions without taking into account the structural changes caused by the process of economic development itself or which may be brought about through economic planning. A fundamental objective of the latter is precisely to bring about changes in the quantity and quality of available resources; accordingly, current price conditions are themselves subject to change and may not be an adequate guide for the optimum allocation of resources in a dynamic environment.

108. This last remark is basically an amplification of the argument which justifies protection for new industries and leads again to the argument of the young economy to which we have already referred. According to the latter, if levels of duty are fixed in such a way as to afford protection to the most efficient industries, those which at first are relatively inefficient cannot be taken into account. These are the industries which have high costs to begin with but may later become efficient once they have improved production conditions both at the level of the firm itself (i.e., after greater experience has been gained in production, organization and administration, technical staff and workers have been trained, the product has been firmly established in the market, and a more economic production scale has been achieved, etc., with the consequent internal economies), and at the level of the particular branch of industry and of the economy as a whole (development of subsidiary activities, changes in the structure of demand, development of infrastructure and necessary basic services, more efficient marketing, better banking and credit organization, etc.) with the consequent external economies.

109. The price system, for its part, usually suffers—particularly in the economically under-developed countries—from rigidities, imperfections and distortions (caused by lack of integration in the markets for the factors of production, the relative immobility of resources, monopolistic situations, etc.) as a result of which it does not adequately reflect the relative scarcities of production factors. In this case the expected rate of return on capital is not an appropriate indication as to the relative efficiency of the alternative applications of resources; in other words, those that are the most profitable or lucrative are not necessarily the most efficient. In addition, in the under-developed economies, which are frequently characterized by a lack of enterprise, the profit incentive is often not enough to encourage investment in activities which offer the greatest possibilities of gain.

110. On the other hand, efficiency is a relative and complex concept. Apart from the possible conflict just mentioned between efficiency and profitability, the efficient utilization of resources from the point of view of private enterprise (which finds its primary expression in the monetary cost of production) may not be so from the social point of view or from that of the economy as a whole. Furthermore, the industries most appropriate for the country at a given moment are not necessarily those representing the most efficient allocation of resources in absolute terms, but those representing the most

efficient allocation of resources as between the industries meeting certain general criteria on which the development policy is based. Industries of this kind are those using domestic raw materials and those which make more intensive use of the resources in most abundant supply (generally manpower in the economically under-developed countries); industries which permit greater savings of foreign currency, either because they utilize domestic raw materials or because they produce substitutes for imported manufactures; industries which can earn foreign exchange through exports;⁷⁰ industries which afford a certain stability to the economy and reduce the external vulnerability of the latter; industries which form part of a group of projects (industrial complexes) and are efficient if established simultaneously or in relation with other industries (even if inefficient on their own),⁷¹ or which are essential for the efficient development of other industries (e.g., the so-called "basic industries" and more generally those which, even if unable to become competitive on the international market, may nevertheless provide an incentive for development in other sectors), etc.⁷²

111. As may be appreciated, these and other similar considerations of an economic nature (which in various

⁷⁰ The alternative of developing industries for import substitution as against export industries is considered below, and a procedure is suggested for calculating the "indices of foreign exchange efficiency" of individual industries.

⁷¹ These are the industries for which external economies are particularly important. However, the intense advancement of such economies for purposes of industrial development complicates the problem of selecting industries, and becomes one of selection between different configurations or combinations of investment (i.e., different industrial complexes) rather than between specific projects.

⁷² Such basic industries should not, however, be established regardless of their efficiency, lest they constitute obstacles rather than incentives to the development of other industries, and have a serious effect on the production costs of the latter. Thus, an iron and steel industry with high production costs hinders rather than facilitates the development of metal manufacturing industries.

A. O. Hirschman in his work *The Strategy of Economic Development* (Yale University Press, New Haven, 1958) emphasizes in particular the role which may be played in economic development by certain investments that generate or stimulate others through complementarity of external economies, and also the desirability of assigning priority in protection to industries with the greatest "backward and forward linkage" which accordingly stimulate investment in other sectors related through a situation of interdependence (as consumers or suppliers, through the purchase of raw materials and intermediate products—backward linkage—and the provision of raw materials or intermediate and finished products—forward linkage). In this connexion he cites the studies by Chenery and Watanabe on the degree of interdependence of certain industrial sectors in Italy, Japan and the United States. According to these, at one end of the scale there is final primary production (fishing, transport, services and trade) with a very low index of backward and forward linkage, and at the other end intermediate manufacture (intermediate processing of primary products, textiles, chemicals, paper, etc. and in particular, the iron and steel industry) with a high index of both types of effect. In the centre of the scale are found intermediate primary production (metal mining, petroleum and coal extraction, agriculture, forestry, electric power, etc.) with high forward linkage and low backward linkage, and final manufacturing industries (machinery, shipbuilding, mills, wool and leather industries, etc.) with low forward and high backward linkage. These interdependencies are mainly determined by means of a statistical analysis of input-output matrices.

For a relatively detailed statement of some of these considerations and of others which can and should be taken into account, see *World Economic Survey, 1961*, op. cit., chapter I, in particular the section on "Problems in the choice of industries".

forms are often presented as arguments in favour of protectionism) presuppose the existence of a development policy and, if due account is to be taken of them, require a measure of economic planning since they imply that there should be a considered policy in respect of investments, which must not be left to the free play of the price system nor in some cases to the spontaneous decisions of entrepreneurs. Such planning may range from the mere selection of a few industries to a situation in which for various reasons, such as those indicated above, special protection (i.e., protection higher than that normally accorded to other industries) is considered desirable, to the complete planning of investments in which the price system (and accordingly the automatic action of the tariff based on the principle of uniform protection) plays a secondary or almost non-existent role in the allocation of resources.

112. Development planning thus implies a substantial reduction in the autonomous action of the tariff based on the principle of uniform normal protection, leading to a "natural selection" of industries through automatic protection of the most efficient. Even though the normal rates of duty calculated according to this principle can and should be taken as a starting and reference point for fixing customs duties, the latter should ultimately correspond to the selection, by means of the development programme, of the industries to be protected. Thus the customs tariff is one of the various measures by which industrial development is encouraged and guided, and is used in combination with other instruments (e.g., credit policy, fiscal policy, etc., as well as direct investment by the Government) to implement the investment programme which is considered to represent the optimum allocation of resources in the light of the objectives of the Government's economic development policy.

113. In the event of changes in the standard rates of duty to give additional or special protection to new industries (this being traditionally considered the principal if not the only valid argument in favour of protection), the higher charges must be provisional (that is to say they must be temporary development tariffs), and this because the costs of the industries concerned are expected to become lower as experience is gained, a more economic scale of production is achieved, and the initial difficulties of organization and operation are overcome. Experience shows, however, that duties are never or hardly ever reduced, since it is most unusual for an industry to admit that it has matured and is thus no longer in need of protection; in fact, it is usually the traditional industries that demand the most protection, thus implying that over the years they have become less rather than more efficient. This happens mainly in relatively limited domestic markets, where internal competition does not develop sufficiently to offset the lack of external competition. As long as the industries concerned receive protection, they are under no obligation to achieve greater efficiency or to reduce their prices.

114. In order to overcome these problems, the special protection granted to new industries should be reduced gradually but automatically. For the purpose stated, a period of five years seems quite appropriate. The industry concerned would thus be compelled to become efficient and competitive. Failure to do so would simply mean that the industry was not economically viable and did not deserve the special protection it was receiving.

In such cases, optimum utilization of resources would require the elimination of the industry.

115. In any event, such additional protection should be granted on a highly selective basis and should be limited to industries likely to become economically viable in the future and of great value to the national economy by making an appreciable net contribution to national income. Moreover, the additional protectionist charge should not take effect until the industry's first major project becomes a commercial operation. The knowledge that this special protection will be granted for a stated period (preferably with automatic annual reductions, as already suggested) will enable the investor to calculate the profitability of the undertaking on the basis of reliable data.⁷³

116. As regards the development of industries for the purpose of alleviating or solving the problem of inadequate import capacity, it has already been stated in earlier sections that this was perhaps the principal incentive and objective of the industrialization process in most of the Latin American countries. However, since the solution of the problem was envisaged merely in terms of import substitution regardless of cost, industrialization has merely aggravated the problem over the long term, instead of solving it.

117. The problem, if posed rationally, should be approached with a view to obtaining an optimum structure of imports and exports, either compatible with or as part of a programme designed to achieve the best possible system of resource allocation. This means, in the first place, that equilibrium between import needs and import capacity should not be sought solely through import substitution but also through the expansion of exports, which would permit the development of efficient industries directed at least in part towards external markets.⁷⁴ Secondly, in granting protection to industries producing import substitutes, priority should be given to those which permit the greatest net saving of foreign exchange under acceptable conditions of operational efficiency. In other words, in production for export, as well as for import substitution, preference should be

⁷³ There is much to be said in favour of the alternative frequently proposed—that of using subsidies instead of customs duties in order to help new industries to meet foreign competition successfully during their first few years of existence. Subsidies do not present any great problems if the number of firms requiring this form of aid is relatively small. By openly reflecting such assistance, they provide a clearer indication of its cost which can thus be more easily calculated. Subsidies must be periodically renewed and therefore justified. This enables conditions to be set, such as those leading to greater efficiency, which the enterprise, must achieve in order to receive a subsidy. The cost of subsidies can be allocated in a rational manner instead of being haphazardly charged to possible consumers of the protected product (this is particularly important in the case of foodstuffs and other essential goods or consumer items). Subsidies do not introduce any distortion in the price structure and, since they do not directly affect the price of the product, cannot have an adverse effect on demand and hence on the achievement of an economic scale of production.

⁷⁴ One of the major defects of economic development planning, as carried out in the Latin American countries, is the fact that the growth rate of exports is normally considered, from the standpoint of those countries, as an independent and variable factor, determined principally by demand in the industrialized countries. This is so because export projections are in almost every case limited to traditional exports, little or no attention being paid to the possibility of developing new exports, least of all those based on the development of a few manufacturing industries in efficient or competitive conditions.

given to industries with high indices of foreign exchange efficiency. Such indices indicate the relative local currency cost of the foreign exchange obtained or saved by the production of various goods for export or for import substitution.

118. These indices would be somewhat similar to those computed in some socialist countries (e.g., Poland) in order to determine the relative "efficiency" of different industries in relation to the foreign exchange they produce or save.⁷⁵ On the export side the criterion of efficiency would be achievement of the maximum net foreign exchange earnings (gross foreign exchange earnings from exports less the foreign exchange cost of imported components) per unit of production cost of the exported article, that is to say, in relation to the cost of manpower and of domestic inputs. If the calculation is carried further so as to relate the value added at each stage of the production process (gross cost at that stage less the cost of material inputs at the beginning of the stage) to the net value in foreign exchange of the goods at the end of that stage (gross value in foreign exchange at the end of the stage less the gross foreign exchange value of inputs at the beginning of it, whether or not imported), the index of "net foreign exchange efficiency" of production is obtained.

119. The same procedure can be applied, of course, in order to determine such indices in the case of import substitution industries, by comparing the value added, or cost of processing, with the net saving in foreign exchange. The latter is equivalent to the gross saving (cost in foreign exchange of the goods the imports of which are replaced by domestic production) less the foreign exchange forfeited by reason of the use of component materials which could otherwise be exported (value of exportable raw materials used in production) and the foreign exchange cost of the imported components. A comparison of the indices obtained for export industries, on the one hand, and for import substitution industries, on the other, will make it possible to determine, from the standpoint of efficiency, which industries should be developed in order to economize or earn foreign exchange. Import substitution should give way to the development of export industries when the production cost per unit of foreign exchange saved thereby is greater than the production cost per unit of additional foreign exchange receipts resulting from more exporting.

120. Reference should also be made to the problem which, from the standpoint of efforts to introduce a rational protectionist policy, is posed by restrictions applied for balance-of-payments reasons. Although such a policy would make a considerable and perhaps decisive contribution towards reducing balance-of-payments disequilibria and alleviating or even eliminating the chronic trend towards such disequilibria, the latter will inevitably continue to occur with a certain frequency and intensity, particularly over the short and medium term and, at least in a sporadic and temporary manner, even over the long term. This will make it necessary to resort to emergency measures to limit imports, unless some effective international mechanism can be established to offset temporary contractions in import capacity.

⁷⁵ In this connexion, see the information on foreign trade organization and methods given by the Polish delegation to the eighth session of the Trade Development Committee of the Economic Commission for Europe, Geneva, 29 June-3 July 1959, document TRADE/84, annex IV.

121. Although such restrictions are introduced because of balance-of-payments problems, they have a strong incidental protectionist effect which may not only encourage undesirable investment, or investment in sectors of secondary priority, but may also accustom industry to excessive protection, thus depriving it of the necessary incentive to become efficient and hence offsetting or nullifying to a considerable degree the efforts to achieve a rational protectionist policy. One of the essential conditions of such a policy is, therefore, the adoption of measures to counteract or reduce as far as possible an undesirable protectionist effect.

122. In the first place, the Government must state clearly and categorically that the restrictions adopted for balance-of-payments reasons are temporary measures designed solely to protect foreign exchange reserves and that they will not be maintained for protectionist purposes; that accordingly any claims by industries alleging that they cannot continue to operate if they can no longer count on the incidental protection offered by such measures will in principle be rejected.⁷⁶ Subsequent action should of course conform to those statements, for otherwise they would no longer have the desired effect.

123. At the same time, some system of supervision and guidance must be applied to investments; in its simplest form this could be limited to fiscal incentives, credit facilities etc., for industries whose establishment or development should be promoted, and/or higher taxes, credit restrictions etc., for investments which are to be discouraged (such measures should, moreover, form part of any economic development programme, and in this regard we have already indicated that tariff protection is only one of various instruments which could and should be used), but in case of need more direct control measures may also be included such as the requirement of prior permits for establishing new industries or importing machinery and other capital goods, price control to prevent established industries from raising their prices under the additional protection which they receive, etc.⁷⁷

124. Finally, to avoid stimulating the establishment or expansion of domestic production of certain articles,

⁷⁶ This would mean a complete reversal of current practice in the Latin American countries which, as indicated in sections A and B, consists of transforming temporary or emergency restrictions introduced for balance-of-payments reasons into permanent protective measures, replacing quantitative or direct restrictions by rather high charges or customs duties.

⁷⁷ Thus, in New Zealand the establishment of new industries is regulated by a system of licences for imports of machinery and other capital goods, which are only granted upon approval by the Department of Industry and Commerce; one basic factor taken into consideration for the granting or refusal of the licence is the price at which the industry hopes to be able to produce and sell. In principle, the price and quality of the domestic product must be comparable to those of similar foreign products. In order to prevent established industries from becoming relatively inefficient within a reserved market because of restrictions adopted for balance-of-payments reasons, or to prevent them from taking advantage of the monopolistic situation which they enjoy, three kinds of measures are applied: (a) fixing and control of prices: any increase in the price established in agreement between the industry and the Government (such agreement being a prerequisite for permission to import capital goods) requires prior approval by the Government; (b) imports may be permitted of goods which compete with those of the domestic industry so as to oblige the latter to lower its prices; (c) establishment of other firms in competition with existing firms is allowed.

one must consider the alternative of reducing imports thereof through higher internal consumption taxes rather than through higher customs duties or quantitative restrictions on imports. It should, nevertheless, be borne in mind that such charges and, in general, the use of the tax and subsidies systems, like that of customs duties, may not always prove an effective guide for investments, particularly in under-developed countries,

where market forces are often not sufficiently active or responsible to channel supply and demand in desirable directions—and this problem is considerably aggravated when the economy suffers from an inflationary process. In such cases it may be advisable to apply quantitative and direct controls on imports, despite their well-known disadvantages and shortcomings, though this must essentially be a temporary measure.

ANNEXES

Annex I

SIMPLIFIED PROCEDURE FOR COMPUTING STANDARD RATES OF DUTY

1. As has been shown, in order to draw up a tariff based on the principle of granting a uniform level of protection to the various industries, standard duty rates must be calculated, composed of (a) a percentage representing net tariff protection, plus (b) a compensatory duty to counterbalance the use of raw materials and intermediate or semi-manufactured products which are protected and are therefore purchased at a price higher than the world market quotation.

2. The computation of such standard rates, and in particular of the proportion corresponding to net protection (which is obtained for each industry by multiplying the standard or uniform coefficient of protection by the cost of manufacture or processing—i.e., the value added—in the industry concerned) calls for a wealth of data, mainly furnished by industrialists, with regard to the various components or the production cost, including profits, so that through subsequent processing and analysis, the price and quantity of the raw materials and intermediate products used, and the amount of the value added or manufacturing cost, can be determined for each industry and sometimes for specific products.

3. Apart from being lengthy and laborious, such a procedure is unquestionably difficult to apply in under-developed countries, which frequently have neither adequate technical and administrative facilities nor trade and industrial organizations capable of furnishing the necessary basic information and co-operating effectively in other aspects of the work.

4. Furthermore, in the particular case of the majority of Latin American countries, where the structure of import duties and charges is characterized by irrationality and excessively high levels, there would be no point in too much precision in determining standard duty rates, which would have to undergo many substantial modifications in order to avoid unduly sudden corrections of the serious distortions now existing. Moreover, even if substantial reductions were made in the present duties and charges, it would be wise to maintain a fairly high tariff level for a few years, which means that the differences between the standard rates determined more or less approximately and those which would result from detailed research are of minor importance. Again, it would be more useful to devote a considerable part of the resources available to improving customs administration, for unless that is properly organized no customs tariff, however rational and scientific, can be effectively applied.

5. Accordingly, a simplified procedure is suggested for drawing up a relatively rational customs tariff. A preliminary step would be the adoption of the scales of duties (minimum and maximum levels) to be established for each of the several major categories of products; duties would be fixed within those limits for each product, group of products or branch of industry, taking into account: (a) whether in their manufacture use is made of raw materials or semi-manufactured products which are subject to

import duties and, accordingly, are presumably obtainable at a cost exceeding the world market price by the amount of that duty; and (b) the estimated or approximate value added to the product by processing or manufacturing (i.e., cost of manufacture alone, given by the total cost of the product less the cost of the raw materials and intermediate products used).

6. For example, duties could be fixed within the following scales:^a

(a) Raw materials, including foodstuffs, whether or not processed: from 0 to 10 per cent. Raw materials would in principle be duty-free, except when it was deemed necessary to protect domestic production of a specific item;

(b) Intermediate or semi-manufactured products: from 0 to 20 per cent. The duty would be applied, however, in such a way that real protection accorded to production of such goods, i.e., to the processing industry concerned, should not exceed 25 per cent or 30 per cent, which would permit the development of industries whose manufacturing costs were higher by up to that percentage than those of comparable foreign products.^b The duties to be actually fixed (net protectionist duty plus compensatory duty for utilization of dutiable raw material) would be determined by a procedure similar to that indicated below for fully manufactured goods.

(c) Fully manufactured goods: from 10 to 40 per cent. The maximum duty of 40 per cent would in any event ensure effective protection of at least 40 per cent, on the extreme (and theoretical) assumption that the value added were 100 per cent, or that the raw materials and intermediate products used were also dutiable at the rate of 40 per cent. In all other cases this maximum duty would imply effective protection in excess of 40 per cent, as will be seen below.

7. The establishment of the basic duty (i.e., the net tariff protection, not including the compensatory duty) between the minimum of 10 and the maximum of 40 per cent would be based on the following scale, which would ensure for the majority of manufactures a level of protection ranging from 50 to 60 per cent, and in any case exceeding 40 per cent:

^a No consideration is given here to the question of establishing fiscal duties or duties imposed for exchange purposes. With respect to the latter, it is assumed, as a prerequisite, that the rate of exchange is so fixed or adjusted that, at the tariff levels selected, equilibrium is normally achieved in the balance of payments.

^b In practice, the margin of difference, that is, the degree of effective protection, would be higher than the said 25 or 30 per cent, since the c.i.f. cost of importing the foreign product (not including customs duties) would be augmented by transport costs and delays in transit, customs clearance, etc. The same consideration applies to manufactured products.

<i>Percentage of value added by the industry (V)</i>	<i>Basic duty (excluding compensatory duty) (D)</i>	<i>Percentage of effective protection granted (100 × D/V)</i>
Less than 20 per cent	10 per cent	From 50 to 100 per cent, or more
From 20 to 30 per cent	15 per cent	From 50 to 75 per cent
From 30 to 40 per cent	20 per cent	From 50 to 66 per cent
From 40 to 50 per cent	25 per cent	From 50 to 62 per cent
From 50 to 60 per cent	30 per cent	From 50 to 60 per cent
From 60 to 70 per cent	35 per cent	From 50 to 58 per cent
More than 70 per cent	40 per cent	From 40 to 57 per cent

8. Should the imported raw materials or intermediate products used be dutiable, a compensatory duty would be added to the basic duty indicated above; to obtain this, the rate of duty payable on the raw material or intermediate product would be multiplied by the percentage of the total cost of the product which the value of such inputs represented (or, as shown else-

$d(100-V)$ where, $\frac{100}{d}$, in which d is the rate of duty on the raw

material or intermediate product and V the value added in manufacture, so that $100-V$ is the value of the raw materials and intermediate products used). Thus, a raw material subject to a duty of 5 per cent which represents 20 per cent of the total value of the manufactured product increases the cost of the later by 1 per cent, and this should accordingly be the amount of the corresponding compensatory duty. The same calculation would be repeated for the various raw materials and intermediate products used in manufacturing a specific article; the sum of the results obtained would give the total compensatory duty which should be added to the net protectionist duty in order to compute the standard rate of duty applicable to the said manufactured article.

9. In order to calculate this compensatory duty, and likewise the basic duty or percentage of net tariff protection, the approximate composition of the total cost of the product must be ascertained, i.e., the proportions corresponding to the various raw materials and intermediate products on the one hand, and to the cost of manufacture, or value added, on the other. This information can be obtained from industrialists, technical experts or specialists in various industries, and also from data collected or studies carried out in other countries. As it is not a matter of arriving at exact results but merely at more or less approximate figures, the task is considerably simplified.^c

10. In the foregoing table it may be seen that while the basic duty percentages suggested are appreciably lower than those commonly applied to imported manufactured goods in the Latin American countries, they represent very high levels of real net protection, which in almost all cases are above 50 per cent. In actual fact, such rates could and should be considered ex-

cessive, since they would afford protection to industries whose manufacturing costs were as much as 50 per cent heavier than those of comparable foreign industries.^d Nevertheless, in view of the serious distortions characterizing the economic structures of the Latin American countries and the numerous industries which have developed in the region under the shelter of much greater protection, it might perhaps be neither wise nor practicable to suggest lower tariff levels for the time being.

11. At the same time, moreover, the rationalization of the tariff structure, in particular the substantial reduction or the elimination of duties on raw materials and intermediate products, will itself cause a considerable drop in the level of protection required by a number of industries.

12. In cases in which it is considered that a marked and rapid reduction of the duty, and, consequently, of the level of real protection, might do serious harm to some important industry, movable duties could be established, which could gradually but automatically be reduced to the desired level over a period of, say, five years. What is more, this procedure could be more generally applied, through the formulation and promulgation of the tariff which could enter into force in full in five years' time by virtue of automatic annual reductions of the current duty rate, each amounting to 20 per cent of the difference between that rate and the one adopted in the new tariff.

13. Apart from this, the calculations referred to would make it possible to determine standard duty rates, which could be revised either upwards or downwards in certain cases where such a proceeding was considered to be warranted on economic and/or political and social grounds. In some instances it will be found expedient to grant certain industries, even if only on a temporary basis, a level of protection higher than that adopted as the standard or maximum; and in other—perhaps fairly numerous—cases it may prove feasible to fix a duty rather lower than the standard rate, because the industry concerned does not require the whole of the protection this would give.

14. The principal merit of the procedure suggested is that it permits a relatively simple (although somewhat modified) application of the principle of uniform distribution of tariff protection and, above all, that it enables customs duties to be fixed in such a way as to grant industry real protection up to a certain deliberately and rationally determined level which indicates the maximum degree of inefficiency that a government is prepared to tolerate in industries, which is compatible with over-all economic policy and to which the private sector must adapt itself.

^dIt has already been pointed out in footnote 63 that the standard coefficient of protection used by the Swedish Tariff Commission as the basis of the draft customs tariff drawn up in 1956 was 13 per cent.

^cThe United States industrial censuses constitute an excellent source of basic and reference data, especially that taken in 1947, since it indicates for each industry the proportion of the final price of the product represented by the raw material and intermediate products used (although in global terms). Also very useful are the input-output matrices drawn up for various industries and sectors in several countries. Data from these and other similar sources could be taken as a starting-point, and industrialists could be required to state separately the value added by them.

Annex II

A. SIMPLE ARITHMETIC MEANS, BY SECTIONS OF THE BRUSSELS TARIFF NOMENCLATURE, OF THE IMPORT DUTIES AND CHARGES LEGALLY APPLICABLE IN ARGENTINA, BRAZIL, CHILE AND FRANCE^a

(Duties and charge in force at the beginning of 1960, expressed in *ad valorem* terms as percentages of *c.i.f.* value)

Section and description of contents	Argentina ^b	Brazil ^c	Chile ^d	France
I. Live animals and animal products.....	158	43	119	13
II. Vegetable products	144	56	115	17
III. Animal and vegetable fats and oils and their cleavage products; prepared edible fats; animal and vegetable waxes.....	169	58	74	16
VI. Prepared foodstuffs; beverages, spirits and vinegar; tobacco.....	168	89	236	26
V. Mineral products	120	25	86	4
VI. Products of the chemical and allied industries.....	124	30	63	19
VII. Artificial resins and plastic materials, cellulose esters and ethers, and articles thereof; rubber, synthetic rubber, factice, and articles thereof.....	147	66	80	16
VIII. Raw hides, skins, leather, furskins, and articles thereof; saddlery and harness; travel goods, handbags and the like; articles of gut.....	192	95	270	13
XI. Wood, wood charcoal and articles of wood; cork and articles of cork; manufactures of straw, of esparto and of other plaiting materials; basketware and wickerwork.....	167	84	79	15
X. Paper-making material; paper and paperboard, and articles thereof.....	160	68	74	18
XI. Textiles and textile articles.....	167	93	112	17
XII. Footwear; headgear; umbrellas and sunshades; artificial flowers and articles of human hair; fans	194	127	183	20
XIII. Articles of stone, of plaster, of cement, of asbestos, of mica and of similar materials; ceramic products, glass and glassware.....	174	80	101	18
XIV. Pearls, precious and semi-precious stones; precious metals, rolled precious metals, and articles thereof; imitation jewellery; coin.....	168	35	116	12
XV. Base metals and articles thereof.....	152	66	68	19
XVI. Machinery and mechanical appliances; electrical equipment.....	115	49	43	18
XVII. Transport equipment	167	40	50	19
XVIII. Optical, photographic, cinematographic, measuring, checking, precision, medical and surgical instruments and apparatus; clocks and watches; musical instruments; sound recorders and reproducers.....	173	44	71	23
XIX. Arms and ammunition.....	195	76	78	14
XX. Miscellaneous goods and manufactured articles, not specified or included elsewhere.....	187	109	105	23
XXI. Works of art, collectors' pieces, and antiques.....	164	0	19	0
<i>Over-all average</i>	151	60	93	18

^a In order to calculate the simple arithmetic means (by BTN sections and chapters) presented in this and in the following table, the first step was to determine the average of the individual duties and charges (in *ad valorem* terms) applicable in each country to the products classifiable under each BTN item. This reclassification of the duties and charges applicable under the different national nomenclature in terms of BTN items presents serious difficulties—especially in the case of so out-of-date and unsatisfactory a nomenclature as that used in Argentina which often had to be overcome by recourse to subjective appraisals of the relative importance of the various products included under a given BTN item, to estimates of the level of duties and charges applicable to the products in question, and to certain other simplifications. The results obtained are therefore mere approximations, which serve, however, to give an adequate idea of the order of magnitude of average duties and charges in the different countries concerned.

The charges taken into account for the purposes of these calculations are the customs duties and duties and charges of equivalent effect indicated for each country in the following notes, in force at the beginning of 1960, and legally applicable under the most-favoured-nation clause. They may not correspond to those applied in practice, which in many instances are reduced, or even lifted altogether, by virtue of special exemption régimes or administrative decisions. Nor are preferential duties taken into account.

^b Including *ad valorem* customs duties (not specific duties, which are excluded on account of their low incidence) and exchange surcharges.

^c Only the duties established in the customs tariff (which are almost exclusively *ad valorem*) are taken into account. Neither the customs clearance rate (5 per cent of the *c.i.f.* value for almost all products) nor the heavier cost of foreign exchange for imports in the special category—which at the time of preparation of the table was approximately equivalent to a surcharge of 200 per cent on the *c.i.f.* value of the product—was included in the calculations. In the case of petroleum and petroleum derivatives, imports of which are subject to the so-called “single duty”, the differences between that duty and the internal tax on similar domestically-produced goods are taken as customs duties.

^d Covering only the specific duties (in terms of *ad valorem* equivalences) and *ad valorem* duties established in the customs tariff, on the basis of the computations and the reclassification under BTN items carried out by the Office of the Superintendent of Customs in preparation for a tariff reform. Neither prior deposits nor the supplementary taxes which in many instances replaced them are taken into consideration. At the date when the table was drawn up (early in 1960), prior deposits varied between 5 and 1500 per cent of the *c.i.f.* value, for periods of 30 to 90 days, and the cost of financing, for example, a prior deposit of 1500 per cent of 90 days was estimated at 90 per cent of the *c.i.f.* import value. The supplementary taxes ranged at that time from 5 to 200 per cent of the *c.i.f.* value of the goods. The prior deposit, which from mid-1959 to the end of 1961 had been almost entirely superseded by supplementary taxes, was reintroduced at the beginning of 1962 for a large number of products (although the supplementary taxes were maintained) at rates of up to 5 000, and, for a time, up to 10 000 per cent of the *c.i.f.* value. Furthermore, about 700 products were struck off the schedule of authorized imports.

B. SIMPLE ARITHMETIC MEANS, BY CHAPTERS OF THE BRUSSELS TARIFF NOMENCLATURE, OF THE IMPORT DUTIES AND CHARGES LEGALLY APPLICABLE IN ARGENTINA, BRAZIL, CHILE AND FRANCE^a

(Duties and charges in force at the beginning of 1960, expressed in ad valorem terms as percentages of c.i.f. value)

Chapter and description of contents	Argentina	Brazil	Chile	France
1 Live animals	80	27	25	20
2 Meat and edible offals.....	185	61	38	25
3 Fish, crustaceans and molluscs.....	170	60	51	25
4 Dairy produce, birds' eggs and natural honey.....	175	53	175	19
5 Products of animal origin, not elsewhere specified or included.....	170	35	185	1
6 Live plants and products of floriculture.....	96	60	106	23
7 Edible vegetables, plants, roots and tubers.....	153	56	173	15
8 Edible fruit and nuts; peel of melons and citrus fruit.....	167	63	234	14
9 Coffee, tea, maté and spices.....	137	73	64	19
10 Cereals	142	52	105	27
11 Products of the milling industry; malt and starches; gluten; inulin.....	175	62	131	32
12 Oil seeds and oleaginous fruit; miscellaneous grains, seeds and fruit; industrial and medicinal plants; straw and fodder.....	126	37	8	10
13 Vegetable raw materials for use in dyeing or tanning; lacs; gums, resins, and other vegetable saps and extracts.....	110	24	36	5
14 Vegetable plaiting and carving materials, and other vegetable products not elsewhere specified or included	135	46	40	1
15 Animal and vegetable fats and oils and their cleavage products; prepared edible fats; animal and vegetable waxes.....	169	58	74	16
16 Preparations of meat, fish, crustaceans or molluscs.....	191	110	180	14
17 Sugars and sugar confectionery.....	177	99	171	60
18 Cacao and cocoa preparations.....	118	86	90	26
19 Preparations of cereals, flour or starch; pastrycooks' products.....	188	86	140	31
20 Preparation of pulses, vegetables, fruit and other plants or parts of plants.....	185	115	358	26
21 Miscellaneous edible preparations.....	186	102	133	17
22 Beverages, spirits and vinegar.....	192	121	301	26
23 Residues and waste from the food industries; prepared animal fodder.....	195	18	451	12
24 Tobacco	174	82	226	0
25 Salt; sulphur; earths and stone; plastering materials, lime and cement.....	136	41	106	3
26 Metallic ores, slag and ash.....	144	9	10	7
27 Mineral fuel, mineral oils and products of their distillation; bituminous substances; mineral waxes	78	25	67	3
28 Inorganic chemicals; organic and inorganic compounds of precious metals, of rare earth metals, of radio-active elements and of isotopes.....	128	19	89	20
29 Organic chemicals	102	13	34	23
30 Pharmaceutical products	151	42	13	17
31 Fertilizers	75	11	29	7
32 Tanning and dyeing extracts; tannins and their derivatives; dyes, colours, paints and varnishes; putty, fillers and stoppings; inks.....	132	55	71	21
33 Essential oils and resinoids; perfumery, cosmetics and toilet preparations.....	138	65	53	14
34 Soap, organic surface-active agents, washing preparations, lubricating preparations, artificial waxes, prepared waxes, polishing and scouring preparations, candles and similar articles, modelling pastes and dental waxes	151	74	142	17
35 Albuminoidal substances; glues	164	45	64	19
36 Powders and explosives; pyrotechnic products; matches; pyrophoric alloys; certain combustible preparations	140	89	63	7
37 Photographic and cinematographic goods.....	138	22	45	18
38 Miscellaneous chemical products.....	125	26	46	17
39 Artificial resins and plastic materials, cellulose esters and ethers, and articles thereof.....	128	55	76	21
40 Rubber, synthetic rubber, factice, and articles thereof.....	155	76	83	13
41 Raw hides and skins, and leather.....	190	88	441	10
42 Articles of leather; saddley and harness; travel goods, handbags and the like; articles of animal gut	192	102	86	18
43 Furskins and artificial fur; manufactures thereof.....	195	95	120	14

TABLE B (continued)

Chapter and description of contents	Argentina	Brazil	Chile	France
44 Wood and articles of wood; wood charcoal.....	166	86	70	13
45 Cork and articles of cork.....	159	54	46	26
46 Manufacturers of straw, of esparto and of other plaiting materials; basketware and wickerware	192	103	207	14
47 Paper-making material	101	49	42	11
48 Paper and paperboard; articles of paper pulp, of paper or of paper-board.....	175	79	81	22
49 Printed books, newspapers, pictures and other products of the printing industry; manuscripts, typescripts and plans.....	144	53	67	13
50 Silk and silk waste.....	126	100	75	9
51 Man-made fibres (continuous).....	160	71	104	22
52 Metallized textiles	163	85	73	22
53 Wool and other animal hair.....	176	65	76	6
54 Flax and ramie.....	133	96	53	11
55 Cotton	160	102	47	12
56 Man-made fibres (discontinuous).....	155	75	145	21
57 Other vegetable textile materials; paper yarn and woven fabrics of paper yarn.....	148	75	106	15
58 Carpets, mats, matting and tapestries; pile and chenille fabrics; narrow fabrics; trimmings; tulle and other net fabrics; lace; embroidery.....	187	127	158	26
59 Wadding and felt; twine, cordage, ropes and cables; special fabrics; impregnated and coated fabrics; textile articles of a kind suitable for industrial use.....	170	74	52	20
60 Knitted and crocheted goods.....	185	120	199	26
61 Articles of apparel and clothing accessories of textile fabric.....	195	120	247	24
62 Other made-up textile articles.....	185	120	187	23
63 Old clothing and other textile articles; rags.....	185	30	19	10
64 Footwear, gaiters and the like; parts of such articles.....	194	120	99	21
65 Headgear and parts thereof.....	190	113	289	18
66 Umbrellas, sunshades, walking-sticks, whips, riding-crops and parts thereof.....	194	123	131	21
67 Prepared feathers and down and articles made of feathers or of down; artificial flowers; articles of human hair; fans.....	200	150	169	21
68 Articles of stone, of plaster, of cement, of asbestos, of mica and of similar materials.....	167	76	69	14
69 Ceramic products	182	82	144	19
70 Glass and glassware.....	173	82	97	22
71 Pearls, precious and semi-precious stones, precious metals, rolled precious metals, and articles thereof; imitation jewellery.....	169	42	116	13
72 Coin	150	0	—	0
73 Iron and steel and articles thereof (including pig iron and cast iron).....	144	65	51	17
74 Copper and articles thereof.....	181	55	119	18
75 Nickel and articles thereof.....	125	27	91	15
76 Aluminium and articles thereof.....	152	66	72	22
77 Magnesium and beryllium and articles thereof.....	38	31	23	27
78 Lead and articles thereof.....	185	60	91	16
79 Zinc and articles thereof.....	166	54	83	16
80 Tin and articles thereof.....	124	63	54	12
81 Other base metals employed in metallurgy and articles thereof.....	51	38	37	23
82 Tools, implements, cutlery, spoons and forks, of base metal.....	163	67	56	21
83 Miscellaneous articles of base metal.....	188	93	62	22
84 Boilers, machinery and mechanical appliances.....	102	47	40	18
85 Electrical machinery and equipment; parts thereof.....	147	52	49	20
86 Railway and tramway locomotives, rolling-stock and parts thereof; railway and tramway track fixtures and fittings; traffic signalling equipment of all kinds (not electrically powered)	136	35	43	17
87 Vehicles, other than railway or tramway rolling-stock, and parts thereof.....	192	82	74	25
88 Aircraft and parts thereof; parachutes; catapults and similar aircraft launching gear; ground flying trainers	145	2	25	19
89 Ships, boats and floating structures.....	177	9	20	10
90 Optical, photographic, cinematographic, measuring, checking, precision, medical and surgical instruments and apparatus; parts thereof.....	158	23	35	24
91 Clocks and watches and parts thereof.....	181	106	171	21
92 Musical instruments; sound recorders and reproducers; parts and accessories of such articles	200	59	66	25

TABLE B (continued)

<i>Chapter and description of contents</i>	<i>Argentina</i>	<i>Brazil</i>	<i>Chile</i>	<i>France</i>
93 Arms and ammunition; parts thereof.....	195	76	78	14
94 Furniture and parts thereof (including medical, dental, surgical and veterinary furniture); bedding, mattresses, mattress supports, cushions and similar stuffed furnishings.....	166	105	115	21
95 Articles and manufactures of carving or moulding material.....	193	139	153	15
96 Brooms, brushes, feather dusters, powder-puffs and sieves.....	195	96	106	29
97 Toys, games, and sports requisites; parts thereof.....	188	117	86	29
98 Miscellaneous manufactured articles.....	187	94	88	22
99 Works of art, collectors' pieces, and antiques.....	164	0	19	0
Unclassified products	180	—	—	—
<i>Over-all average</i>	<i>151</i>	<i>60</i>	<i>93</i>	<i>18</i>

^a For a description of the procedure adopted and the duties and charges taken into account in the calculation of these averages, see the notes to the preceding table.

Annex III

APPROXIMATE INCIDENCE (IN *ad valorem* TERMS) OF THE IMPORT DUTIES AND CHARGES ON SELECTED PRODUCTS FROM THIRD COUNTRIES APPLIED IN STATES MEMBERS OF ALALC AND UNDER EEC'S COMMON EXTERNAL TARIFF

BTN items	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Peru	Paraguay	EEC
CATEGORY I: PRIMARY COMMODITIES AND CAPITAL GOODS									
<i>Group 1. Unprocessed foodstuffs</i>									
01.02 Live animals of the bovine species (breeding stock). L		L	12	L (L)	17	L (L)	14	39	L
01.02 Live animals of the bovine species (beef stock)....	174	250	23	20 (P)	17	13 (P)	13	39	16
01.04 Live sheep and goats (for consumption)	156	276	103	L (L)	20	10	14	39	15
02.01 Chilled or frozen meat of bovine animals	170	276	58	160 (P)	30	15 (P)	12	66	20
08.06 Apples	197	266	30 (P)	550 (P)	47	110 (L)	12	99	8 to 14
08.01 Bananas	40	286	42	260 (P)	18	350	20	99	20
09.01 Coffee beans	26	326	22	135 (P)	18 (P)	39	38	52	16
09.03 Maté	114	326	22	710 (P)	99	39 (L)	26	52	25
10.01 Wheat	194	276 ^a	39	53 (L)	26	10 (L)	12	25	20
10.06 Hulled rice	156	276	58	99 (P)	36 (P)	80 (L)	11	78	16
17.01 Raw sugar	200 ^b	306	14	238 (P)	50 (P)	53 (L)	56	87	80
18.01 Cacao beans	34	285	87	40 (L)	43	95	24	559	9
24.01 Leaf tobacco	137	285	92	145	66	28 and 30	17	48	30
<i>Simple arithmetic mean for Group I-1</i>	123	264	46	185	37	65	21	99	21
<i>Group 2. Industrial raw materials</i>									
25.03 Sulphur of all kinds, other than sublimed sulphur, precipitated sulphur and colloidal sulphur.....	102	L	750	100 (P)	224	212 (L)	16	136	L
26.01 Iron ore	11	286	108 (P)	32	23	L	16	63	L
27.01 Coal	L	50 ^c	51	35 and 55 (P)	29	2	16	44	4 (L) ^d
27.09 Crude petroleum	20	L ^e	7	L	70	L	16	52	L
31.02 Sodium nitrate, natural..	20	L	43	3	17	1 (L)	14	106	L
40.01 Natural rubber, raw.....	14	36	39	10 and 20 (L)	55	66	41	—	L
41.01 Raw hides and skins of bovine animals.....	192	276	6	23 (L)	12 (P)	7 (L)	23	—	9
44.03 Wood in the rough.....	54	306	52 (P)	80 (P)	30 (P)	60 (L)	18 and 30	62	5 (L)
53.01 Wool, not carded or combed	22 ^f	35	50	40 to 60	33	3 to 9 (L)	22	99	L

55.01 Raw cotton.....¹..... 60 and 170 75 4

*Simple arithmetic mean
for Group I-2* 55 106 111

Group 3. Capital goods

84.01	Steam and other vapour generating boilers	40 and 156	45 and 75	58
84.06	Internal combustion en- gines	L to 150	45 and 95	51
84.10	Pumps for liquids..... Pumps fitted with measur- ing devices for distribu- tion of liquid fuels.....	40 and 150 197	95 and 65 96	50 (L) (P) 55
84.20	Weighing machinery (ex- cluding precision bal- ances)	45 and 150	305	50 (L)
84.22	Forklifts	150	45 and 75	35 (P)
84.23	Scrappers	152	26	36
84.24	Ploughs of any kind.....	150	10 and 30	44
84.25	Harvesting machinery....	150	26 and 46	39
84.25	Winnowing and threshing machinery	150	16 and 26	39
84.26	Dairy machinery (cheese- making)	150	16	31 (P)
84.26	Milking machines.....	150	16	33
84.36	Textile spinning machines	60	45	41
84.36	Cotton gins.....	54	76	44
84.37	Looms	43 and 153	45 and 75	45
94.41	Sewing-machines (indus- trial)	150	375	66 (P)
84.45	Engine or universal lathes	152	46 and 76	39 (P)
84.45	Metal-working presses...	L to 150	46 to 76	46
84.45	Wire-drawing machinery	150 (L)	45	46
84.52	Calculating machines....	20 and 100	45	37
85.01	Electric motors.....	129 (L)	65 and 115	50 and 58
86.02	Electric rail locomotives..	40	45	33 (P)
86.05	Luggage vans.....	192	285	51 (P)
86.07	Goods wagons.....	192	55	51 (P)
86.09	Straight axles (gearing or wheel train).....	150	56	38
86.09	Wheels and parts thereof	40	56	37
87.01	Tractors for agriculture..	100*	L	35
87.02	Lorries	150	95 and 305	65 (P)

*Simple arithmetic mean
for Group I-3*..... 119 84 45

26 (L)	25	23	16 ^e	67	L
37	52	38	20	63	1
26	24	16 (L)	14	44	14
10	29	15 (L)	14	44	10 to 22
24 and 10	23	5 to 15	14	49	12 to 16
32	35	9	49	49	12 to 16
25 (L)	30	9 to 43	16	159	15
25 (L)	23	12 (L)	14	...	8
13 (L)	23	10 (L)	14	55	9 to 15
L	22	2 (L)	11 and 13	35	11
L	22	1 (L)	14	35	11
20	22	L (L)	14	35	11
20	17	14 (L)	14	29	11
L	17	14 (L)	14	29	11
15 (L)	22	10 (L)	14	44	11
3	17	52 (L)	14	35	11
25 (L)	21	10 (L)	14	44	10 and 13
70 (L)	63	6	14 and 17	75	12
28 (L)	23	12	14	34	10
25 (L)	20	14	14	29	12
10 (L)	23	12	14	29	4 and 10
20 and 31 (L)	58 and 68	15 (L)	14	74	11 and 14
10 and 25	19 and 38	8 to 75	14	54	12 and 14
L	22	2	12	99	14
25 (L)	28	20 and 30 (L)	16	99	13
25 (L)	28	20 and 30 (L)	16	11	10 and 14
10	20	12	17	99	15
10	20	12	17	99	15
L	23	4 (L)	14	35	12 and 20
10 and 50 (P)	25 to 47	29 and 46 (L)	14	97 ^h	28
118	27	14	16	57	13

BTN items	Argentina	Brazil	Chile
CATEGORY II: SEMI-MANUFACTURED PRODUCTS AND DURABLE CONSUMER GOODS			
<i>Group I. Semi-manufactured products (including processed fuels) other than products of traditional industries</i>			
11.07 Malt	173	31	82 (P)
15.07 Linseed oil.....	187	286 and 306	142
22.08 Ethyl alcohol.....	147	325	33 and 255 (P)
23.05 Fish meal (non-edible)..	194	18	160 (P)
25.03 Sulphur of all kinds, other than sublimed sulphur, precipitated sulphur and colloidal sulphur....	120	11	820
28.08 Sulphuric acid.....	77	275	116 (P)
28.09 Nitric acid.....	60	55	134 (P)
28.16 Ammonia in solution....	187	35	113 (P)
28.17 Sodium hydroxide (caustic soda)	150	25	65
31.02 Potassium sulphate.....	40	L	L
31.02 Superphosphates	40	35 and 55	L
32.01 Quebracho extract.....	192	66	71 (P)
36.02 Prepared explosives.....	150	305	75
38.02 Animal black.....	38	40	61
47.01 Wood pulp for paper-making	28	36, 46 and 305	(P)
48.01 Newsprint	L	1	88
53.05 Wool tops.....	173	36	39
70.06 Ordinary flat glass.....	130	55 and 96	66 and 95 (P)
73.01 Iron ingots (pig iron)...	20	57	109
73.02 Ferro-manganese	111	66	35
73.07 Billets (iron).....	37	66	121 (P)
73.10 Bars (iron).....	60	66	60 and 249
73.13 Steel plate.....	44	66	123
73.16 Railway track.....	60	36	35
74.01 Electrolytic copper ingots	11 and 109	26	30 (P)
74.03 } 74.04 } Copper bars and sheet...	163 and 191	26 and 56	39 (P)
78.01 Unwrought lead.....	111	66 ^d	40
79.01 Unwrought zinc.....	111	26	35

x III (continued)

<i>Colombia</i>	<i>Ecuador</i>	<i>Mexico</i>	<i>Peru</i>	<i>Paraguay</i>	<i>EEC</i>
40 (L)	76	35	18	44	20
36 (L) to 124 (P)	65	7	17	99	5 to 8
200 (P)	122	63 (L)	39 and 56	...	2 and 3
88	28	25	31	102	L
30 (L)	97	3 (L)	31	55	10
30 (L)	46	8 (L)	46	35	4
40 (L)	34	13 (L)	23	35	15
25	24	1 (L)	19	60	15
23	28	19 (L)	23	70	14
3	42	1 (L)	14	106	5
3	17	20 (L)	14	106	10
44 (L)	52	15	13	52	L
11	73	13 and 18 (L)	14	62	16
10	24	8	20	...	7
29 and 32	26	5 and 50 (L)	15 and 17	...	6
3	20	5 (L)	12	35	16
18	38	20 (L)	19	99	3
46	38	124 and 150 (L)	106 and 141	159	10
5 (L)	37	3 and 6 (L)	16	58	5 to 7
3	31	17 and 23 (L)	18	...	2 to 6
10 (L)	37	50 (L)	14	58	4 to 10
10 (L)	42	32 (L)	14	58	6 to 10
12	32	8 (L)	14	58	10
22	21	30	14	65	6 to 10 ^d
12	36	160 (L)	14	62	L
16	63	30 (L)	26	67	10
45 (L)	33	3 and 22	20	193	3
30 (L)	46	96	22	58	6

80.01	Unwrought tin.....	L	96	30
27.10	Petrol (gasoline).....	150	21	40
27.10	Kerosene	20	50	30
27.10	Diesel oil	20	40	38 (P)
	<i>Simple arithmetic mean</i>			
	<i>for Group II-1.....</i>	95	80	98

Group 2. Durable consumer goods

84.15	Household refrigerators.	235	266	58 (P)
84.40	Washing-machines	196	336	33 (P)
84.41	Household sewing-			
	machines	150	375	66 (P)
85.06	Liquefiers and beaters...	193	336	47 (P)
85.06	Floor-polishers	197	345	126 (P)
85.12	Electric irons.....	196	336	31 (P)
85.15	Television reception ap-			
	paratus	194	316	105 (P)
85.15	Radio-broadcasting recep-			
	tion apparatus	150 and 200	325	94 (P)
87.02	Motor cars (not including			
	public-service type ve-			
	hicles)	470 to 1 250 ^l	302 and 375	239 (P)
87.09	Motor scooters and mo-			
	torcycles	442 and 492 ^j	316	82 (P)
87.10	Bicycles	150	316	110 (P)
	<i>Simple arithmetic mean</i>			
	<i>for Group II-2</i>	266	328	90

CATEGORY III: CURRENT CON-
SUMER MANUFACTURES

Group 1. Processed foodstuffs

04.02	Concentrated milk, in			
	liquid form or powder..	197	51	385
04.03	Butter	197	286	133
04.04	Ordinary cheese.....	152	285 and 305	206 (P)
11.01	Wheat flour.....	197	286	109
15.01	Pork lard.....	197	275	152
15.07	Cotton seed oil.....	187	285	69 (P)
15.07	Sunflower seed oil.....	197	286 and 306	199 (P)
15.07	Olive oil.....	197	66 and 256	37 (P)
16.02	Prepared or preserved			
	meat	200	326	590 (P)
16.03	Meat extracts.....	197	326	271 (L)
16.04	Prepared or preserved			
	fish	193	326	1 010 (P)

5	23	29 (L)	16	82	L
L (L)	93	L (L)	16	124	G
L (L)	93	1 (L)	14	82	G
L (L)	83	10 (L)	17	82	G
28	48	28	23	77	7
85 (L)	30	240 (L)	32	44	13
110 (L)	44	163 (L)	19	187	19
70 (L)	63	29 (L)	14 and 17	75	12
110 (L)	72	388 (L)	59	107	19
76 (L)	37	100 (L)	45	107	19
104 (P)	89	100	46	207	19
90 (P)	136	144 (L)	23	90	22
150 (P)	122	180	25	77	22
150 and 200	71 to 122	30 to 155 (L)	30 and 40	96	10 and 29
107 (L)	115	125 (L)	21	87	26
110 (P)	76	50 (L)	15	71	21
108	80	147	30	104	19
158 (P)	35 and 63	20 to 36	12 and 13	83 and 73	18
138 (P)	24 (P)	37 and 39 (L)	15	76	24
150 (P)	158	250 (L)	45	74	23
100 (L)	83	6 (L)	13	31	13
850 (P)	357	54 and 77 (L)	12	86	20
120 (P)	33	5 (L)	14	77	10 and 15
113 (P)	34	80 (L)	15	77	10 and 15
71 (L)	68	11 (L) to 32	21	77	17 and 20
900 (P)	359	240 (L)	66	88	20 to 26
100 (L) to 600 (P)	114	38 (P)	38	...	2-9 and 24
300 (P)	265	200 (L)	50	79	20 to 30

Annex III (continued)

BTN items	Argentina	Brazil	Chile	Colombia	Ecuador	Mexico	Peru	Paraguay	EEC
20.01 } Prepared or preserved									
20.02 } vegetables	185	346	1 330 (P)	630 (P)	152	212 (L)	106	92	18 to 24
20.06 } Prepared or preserved									
fruit	193	326	1 330 (P) and 30	900 (P)	186	Numerous varieties	93	92	17 to 32
22.05 } Wine (non-vintage).....	202	346	290 (P)	250 (L)	172	216 and 280 (L)	75 and 80	62	13 to 19
Simple arithmetic mean for Group III-1.....	192	280	436	359	145	110	41	76	19
<i>Group 2. Other current consumer goods (including semi-manufactured products of traditional industries)</i>									
34.01 } Toilet soap.....	197	325	842 (L)	200 (P)	141	122 (L)	145	64	19
36.01 } Matches	195	336	322 (P)	300 (P)	188 (L)	650	23	103	14
37.02 } Film, sensitized, unexposed, for radiography	74	16	87	10	17	10	7	...	20 (L)
film, sensitized, unexposed for photography.....	194	46	43	26	32		21	...	
40.11 } Tires for vehicles.....	122	106	78 to 288	20 to 67	31 to 44 (L and P)	10 to 90	37 to 41	88	19
40.11 } Inner tubes for vehicles..	122	106	128 to 288	64	44 to 58 (L and P)	10 to 90	37 to 41	120	22
42.02 } Leather travel goods.....	195	336	394 (P)	340 (P)	210 (P)	288 (L)	580	93	19
49.01 } Books	L	25 and 150 (L)	22 and 250	30 (L)	L	240 (L)	L	L	L
53.06 } Woollen yarn.....	170	295	115 (P)	48 (P)	61	57	66	73	6 and 10
53.11 } Woollen fabrics.....	...	336	123 (P)	130 (P)	53 (P)	79 (L)	91 and 136	76	16 and 20
55.05 } Cotton yarn.....	100	325	30 (P)	150 (P)	62	6 and 8 (L)	70	79	10
56.01 } Man-made fibres.....	174 and 243	75	33 (P)	50 (L)	28 (L)	18	44	...	14
61.03 } Men's and boy's under garments	197	345	324 (P)	500 (P)	82 (P)	64 to 200 (L)	186	104	20
61.04 } Women's and girl's under garments	197	345	1 079 (P)	360 (P)	82 (P)	64	186	104	22
64.02 } Footwear with outer soles of leather, rubber or plastic material.....	197	345	60 (P)	300 (P)	67 to 82 (P)	90 to 157 (L)	136 and 156	...	20
83.03 } Safes, strong-boxes and the like.....	197	325	130 (P)	30 (L)	56 and 100	51 (P)	28	62	17
85.20 } Electric filament lamps or arc lamps.....	195	316	37 (P)	65 (L)	25 and 62	...	29	77	15
94.03 } Metal furniture for office use	209	336	152 (P)	140 (P)	136 (P)	152 (L)	41	48	18
Simple arithmetic mean for Group III-2.....	163	244	239	154	76	117	98	78	15

ARGENTINA. Information brought up to date as of March 1962. The *ad valorem* totals noted include *ad valorem* customs duties, exchange surcharges and rate of payment for statistical services. On the other hand, the following were not incorporated: the 20 per cent surcharge imposed on all imports under the terms of Decree No. 8158/61 and 11260 (subsequently abolished); *ad valorem* equivalence of the specific duty and the various specific surcharges on forestry and steel-making development plans. Where a product did not seem to fit into any of the items established in the tariff, a duty of 42 per cent was assigned to it, and one of 150 per cent if it was not included in the schedule of the exchange surcharges.

BRAZIL. Information brought up to date as of March 1952. The *ad valorem* total includes tariff duties; rate of customs clearance; dues payable on improvement of port facilities and the additional cost (estimated at 200 per cent of the c.i.f. value) of foreign exchange for goods classified in the Special Category. The following were not taken into account: mercantile marine replacement levy; the financing of the prior deposit, of which the approximate cost is 9 per cent; consular fees, amounting to \$25 for import values reaching \$1 000, plus an additional \$4.00 for every fraction of \$500 over and above that sum.

CHILE. Information brought up to date as of June 1962. The *ad valorem* total includes customs duties, tax on value of nationalized merchandise (expressed in terms of the c.i.f. *ad valorem* equivalent), supplementary tax, and cost of financing prior deposits; these last range from 10 to 1 000 per cent c.i.f., which, at a rate of interest of 1.5 per cent over a period of 90 days, gives an *ad valorem* equivalence of 1 to 45 per cent. The consular dues of 2.5 per cent f.o.b. were not taken into account, and neither was the loading and unloading tax of \$0.206 per quintal or the 3 per cent freight tax. At the present time there is a specific schedule of authorized imports and the understanding is that imports of goods not appearing on it are prohibited.

COLOMBIA. Information brought up to date as of March 1962. The *ad valorem* total noted includes customs duties, consular dues, and development quotas. The following, on the other hand, were excluded: cost of financing the prior deposit, since the amounts to be imposed were to come into force as from 1 September 1962; the *ad valorem* equivalent of these deposits were to range from 1 to 4 per cent of the c.i.f. value. The régime to which each item is subject is indicated as follows: prohibition of imports (P); import licence (L).

ECUADOR. Information brought up to date as of 2 May 1961. The charges included are tariff duties, consular and harbour dues, special duties for allocation to the southern and eastern provinces, and electrification taxes (all expressed in *ad valorem* c.i.f. terms). As these duties and charges are applied on an f.o.b. basis, for conversion purposes it was assumed that the c.i.f. value exceeded the f.o.b. value by 12 per cent. The supplementary taxes of 6 per cent and 11 per cent on the c.i.f. value of products listed in Schedules I and II, respectively, were also taken into account. Imports specified in Schedules I and II are affected through different exchange

markets; one controlled, with a selling rate of 15.15 sucres to the dollar, and the other free, with a rate of 18.18 sucres to the dollar. This disparity in the cost of exchange coverage is not incorporated in the figures presented. It is understood that imports of goods not appearing in Schedules I and II are prohibited.

MEXICO. Information brought up to date as of March 1962. As the Mexican customs tariff is mixed in character, combining specific and *ad valorem* duties, and also including an official price of each item, for the purposes of the present study this tax structure was expressed in terms of an *ad valorem* total by means of the following procedure. The application of an *ad valorem* duty to an official price gives in practice a specific duty equivalence; by the addition of this value to the existing specific duty a specific total can be obtained, and if this in turn is related to the unit price, an *ad valorem* equivalent of the total duty will result. An indication is given of the legal régime to which each item is subject, through the import licence requisite (L).

PARAGUAY. Up-to-date information was not available on the import régime in respect of prior deposits, sales taxes, etc., nor were the foreign trade yearbooks that were needed in order to obtain unit prices, which are an indispensable requisite for expressing a specific duty in terms of its *ad valorem* equivalent. In the majority of cases, therefore, it was necessary to resort to the data collected for the ECLA secretariat study on customs duties and other import restrictions and charges (E/CN.12/554/Add.8) and to information furnished in the course of the first ALALC conference at Montevideo. Apart from customs duties, the following are included: exchange surcharges, sales taxes, cost of financing prior deposit, consular dues and stamp duties.

(P) Imports prohibited.

(L) Imports subject to licensing.

^a Imports duty-free within a quota established annually to cover the deficit in domestic production. Duty-free imports of 750 000 tons per annum have been negotiated under GATT.

^b Calculated on the basis of a duty of 122 per cent (22 per cent customs duty plus surcharge of 100 per cent) applicable to an official price (*aforo*) of \$140 per ton, the real c.i.f. value being estimated at \$85 per ton.

^c Imports to meet tie-in or mixing requirements, duty-free.

^d European Coal and Steel Community (ECSC) tariff.

^e Subject to import quotas.

^f Excluding exchange surcharge, which is under study.

^g For tractors of less than 85 h.p. import licences are required.

^h Also pay special taxes of 10 000 to 150 000 guaraníes each.

ⁱ Imports of vehicles with a unit value of more than \$3 500 are prohibited.

^j A specific duty of \$3.00 and \$3.50 per kilogramme represents in practice an *ad valorem* duty of 300 and 350 per cent, since the unit price is \$1 per kilogramme.



TAX INCENTIVES IN LATIN AMERICA*

by Pedro Mendive

1. Introduction

Technically speaking, the financing of development means steadily increasing an economy's productive resources, and mobilizing them and allocating them in the most appropriate manner. Thus the aim of such financing is to channel physical productive resources and transfer them from given forms of use to other forms. In fact in a modern economy this mobilization of physical resources cannot be effected directly, in the way that one can take a chessman and move it to another square; the resources must be made use of by indirect methods, in the form of measures of economic policy that can channel and direct their movements. In brief, the task is to use instruments of a financial, economic and fiscal nature to influence relative prices and channel monetary income.

Economic activity is, of course, guided by means of decisions based on relative prices of goods and factors, on profits, interest, wages and other components of the national income, and on other financial funds that may be available to the economy. Thus development financing is based on the possibility of allocating physical resources through action on factors that guide the decisions of producers and consumers (relative prices), and on factors that make it possible to carry out those decisions (flow of monetary income and other funds); the second group of factors operates within the private sector, but also affects the transfers of resources that can and should take place between the private and public sectors.

It should be noted that tax revenue constitutes a deduction from private income. A direct tax is levied on income (theoretically) at the moment when it is earned, and an indirect tax at the moment when it is used or spent. Hence a change in the tax system tends to modify the personal income available and the structure of prices and, as a result of its unequal incidence on the groups receiving the income and on the various goods, can lead to a redistribution of this income, a change in the structure of production and final demand, and even an alteration in the proportions in which the income is distributed between consumption and savings.

Thus the tax instrument can play a not insignificant role in the task of mobilizing and allocating resources, and help to achieve three aims:

(a) The financial aim of taking resources from the private sector, in the form least prejudicial to the sound functioning of the economy and to a progressive dis-

tribution of income, for the purpose of enabling the State to finance increasing public expenditure.

(b) The aim of discouraging certain types of consumption and encouraging the propensity to save of individuals and enterprises, and providing incentives to investment.

(c) The aim of channelling productive resources into activities of higher priority.

Item (a) above goes beyond the scope of the present document, whereas the other two points constitute its main theme, since both relate to extra-fiscal or economic aspects of taxation and are directly concerned with the various types of tax incentive.

The most common forms that such incentives can take in the various types of tax legislation may be briefly summarized as follows:

(a) *General development legislation*, aimed at the establishment and encouragement of certain activities, which are usually distinguished according to the various degrees of economic priority allocated to them, and for which a series of tax exemptions are granted, such as a partial or total remission of income tax for a given number of years, exemption from import duty on imports of capital goods for setting up the enterprise, and on any raw materials and other production items it uses, etc.

(b) *The use of indirect taxation*, with high levels of internal taxation and customs duties on certain luxury items of consumption to promote increased personal savings; differential treatment of different items in the sales tax, for the purpose of changing the structure of final demand.

(c) *The use of direct taxation* to promote greater savings by enterprises, through inclusion in the legislation of special treatment for undistributed profits, authorizing the use of special depreciation systems (accelerated depreciation, voluntary depreciation, etc.), granting special credits in excess of the investment involved on amortization funds, etc.

(d) *Special agricultural taxation*, in view of the economic and social features of this activity in Latin America, in order to promote higher productivity and facilitate subdivision of land.

(e) *Preferential treatment of foreign investment*, for the purpose of attracting foreign capital to supplement domestic savings in promoting more rapid economic development.

The combined action of some or all of these various types of incentive will have the following economic consequences. First, there will be increased domestic investment, provided that the incentives lead to increased savings and an inflow of foreign capital, and that they result in more favourable economic conditions for domestic investment. Second, they will be conducive to

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a long-term increase in the product-capital ratio,¹ once they have had the effect of reallocating domestic productive resources (by encouraging certain activities that are highly productive from the social standpoint, discouraging others that are not, and changing the regional allocation of resources). The increases in the investment coefficient and in the product-capital ratio that result from these incentives will lead to an increase in the domestic product.

To ensure that all these results will follow, two basic conditions are required. The first is that no irreconcilable conflict arise between the equity of the tax burden and the need to collect sufficient tax revenue to ensure that the State can finance, on a stable basis, an increasing level of public expenditure, required by the urgent need to develop the basic social capital that the country needs. The second is that the incentives system operate efficiently.

Lastly, it should be emphasized that if the incentives system is to be effective in achieving its aims, it must be applied to taxes that are high enough to make the exemption or preferential treatment sufficiently attractive from the standpoint of the motives that determine savings and affect the decisions of investors; in addition, there must be an efficient tax administration, well organized and with sufficient resources.

With respect to the first of these two points, the use of the tax instrument alone is not likely to be decisive with respect either to the propensity to save or to investment. There is a series of economic, psychological and technological considerations that together can either supplement the tax incentive in encouraging savings and investment, or else work against that incentive or even completely nullify it. In fact this complex of factors appears in all cases to have a more decisive effect than that of the tax incentive.

The tax incentives will be effective only in so far as the tax administration and the level of education of the taxpayer permit a minimum degree of tax evasion. Otherwise it will still pay the taxpayer to continue to evade the tax laws rather than to take advantage of the exemptions, which generally involve some administrative costs through the need to produce the proof required for the granting of the exemption, and also imply some degree of intervention, by the body concerned, for checking purposes, in the affairs of the enterprise that benefits from the incentive.

2. General development legislation

The Latin American countries are convinced that economic development must be accompanied by a more rapid growth of industrial than of primary activities, at least until a given balance has been reached between the various production sectors. Consequently the present general legislation on development has tended to aim almost exclusively at encouraging manufacturing, so much so that the legislation concerned is generally known as industrial development legislation.

Most of the Latin American countries have such legislation, some of recent date and some enacted earlier. It is based on preferential tax treatment of the activities that are to be encouraged. In some of this legislation any activity that qualifies for the benefits in question

is specified as an "essential" activity, and this term is defined in the legislation itself. Other legislation refers only to some of the requirements that must be met, and the specific definition is left to the authority entrusted with the application of the legislation.²

Practically all the laws or decrees of this type now in force in Latin America cover seven basic common points, although they vary, sometimes considerably, as to the generosity and scope of the tax franchises and exemptions. This applies to the development laws in Colombia (1961), Costa Rica (1959), Ecuador (1962), El Salvador (1961), Guatemala (1959), Honduras (1958), Mexico (1954),³ Nicaragua (1958), Panama (1960) and Peru (1957).

The five Central American countries have recently enacted uniform industrial development legislation and agreed to apply it with a view to the economic integration and the joint and co-ordinated development of the area, and this legislation incorporates all the modern ideas of the typical tax incentives that can be included in such legislation; consequently the Central American legislation will be used as a basis for reference in the comments that follow.

Whatever form the legislation takes, it covers the following basic point, in one form or another: (a) the purpose of the legislation; (b) an implicit or explicit definition of the enterprises that qualify to receive the benefits; (c) a definition of the activities concerned according to the degree of priority allocated to them in promoting development; (d) the nature and amount of the tax benefits granted to each category of activity, and the period covered; (e) the procedure for qualifying for the benefits; (f) control by the competent authority with respect to the fulfilment of the legal requirements, and (g) penalties that apply when the tax exemption is used for purposes other than those laid down in the legislation. Of the above point, only (a) and (d) need to be examined in some detail.

The aims pursued are those of establishing or expanding manufacturing industries that in some way contribute to the country's economic development. For this purpose it is generally laid down that these activities must produce capital goods, raw materials or consumer goods needed for this development that are not produced domestically or are produced in insufficient volume, that use a specified proportion of domestic factors (contain a high level of domestic value added), and that help to improve the balance of payments, either by import substitution or by promoting a higher level of exports. In other words, the aim of such legislation is an expansion of the industrial product such as to imprint a particular pattern on the structure of industry, with some types of manufacturing developing more rapidly than others that are considered less essential from the standpoint of the economy as a whole.

To achieve this group of objectives the following tax exemptions are usually granted: (a) Total or partial exemption from duties and other charges on imports of machinery and equipment and on inputs needed for the enterprise's production, and (b) exemption from

² Where there is no basic development legislation, as in Argentina, for example, there are special acts or decrees to encourage individual activities or enterprises in certain regions.

³ The first provisions of a systematic nature in Mexico date from 1939.

¹ The product-capital ratio for the economy as a whole is obtained by taking the weighted average ratios for each production sector.

taxes on income and wealth for the enterprise and for its partners or shareholders. These exemptions are granted for a number of years (usually for a maximum of ten years) according to the degree of priority accorded under the legislation to each activity. Similarly, the same exemption is usually granted, for all the enterprises regarded as qualified for the purposes of the legislation, in respect of reinvestment in plant expansion. Under some legislation the reinvestment effected in a given year by any enterprise that qualifies for the benefits can be deducted from the profits for that year for income tax purposes.

It can be seen that the benefits granted by these development laws affect two different though related aspects of the factors that govern decisions to invest and to undertake certain productive activities, namely costs, and the possibility of net profits (after tax). The first type of exemption has the aim of ensuring that during the first stage of activity, until the recipient enterprise attains a certain level of efficiency, it can compete with foreign products or with more or less similar domestic substitutes that are considered to have less economic priority. This eliminates some degree of uncertainty as to the prospect of future profits, at least for a given number of years; that is, it has the effect of buttressing one of the motives that governs investment and the establishment of an economic activity. The second type of exemption, by increasing the available income of the enterprises and of its partners or shareholders through exemption of taxes on income and wealth, is intended to make possible not only higher relative profits for these enterprises (in relation to others) in order to have an even greater impact on the investment motives, but also increased savings that can be used for a self-financed expansion of production plants. As the tax benefits provided for this purpose are graduated according to categories of activity, the aim is specifically to promote a more rapid development of certain branches of industry at the expense of others considered less essential.

The tax exemptions granted under some laws are so extensive that they can fairly be described as excessive. They approach the problem of providing an incentive by granting total exemption (whose application goes even beyond the enterprise itself) from all the main taxes for which the enterprise is liable.

To assess the efficiency of the results from the standpoint of the aims pursued by the legislation, the enterprises must be considered in three groups: (a) those that for one reason or another would obtain high profits even if no tax incentive were granted; (b) those that would not obtain profits for most of the period for which the exemptions are granted; and (c) those that would obtain low profits.

Since an enterprise in the first group would in any case expect to obtain high profits, the granting of exemptions provides no additional incentive to establish it. Here the tax exemption constitutes an unfair tax discrimination without any real justification, and its only effect is to deprive the State of revenue. It should be noted that the high profits obtainable are sufficient indication that the enterprise is at a competitive advantage, and it may even be, as is usually the case, that the enterprise does not in fact have to face any competition, either at home or abroad, because of the deficiencies of the domestic market or because of protec-

tionist measures, which are usually more effective than tax measures.

In the second case, if there is no prospect of profits, it is unlikely that they can be conjured up by tax exemptions. Here the exemption from direct taxes is no more than a dead letter, and exemption from import duties in most cases does not, by reducing costs, help to make profits possible to an extent sufficient to encourage entrepreneurs to embark on the activity in question.

In the third case the position is somewhat different. It is quite possible that the low level of profits, after taxes, could be considerably raised if tax exemptions were granted, and that the activity in question might then become sufficiently attractive, compared with others, on the basis of the benefits granted by the development legislation. For all practical purposes, then, the effectiveness of incentives is confined to the activities that fall into the last category considered.

The implicit idea of increasing savings through this type of development legislation by increasing the amount of personal and corporate income available (after taxes) may be effective from the standpoint of the savings of the enterprises and individuals that benefit, but it is less likely to have a decisive effect in increasing national savings.

The exemptions of tax on income and wealth granted by a number of laws to enterprises and to their partners or shareholders are so extensive that there is a substantial difference between the income of these taxpayers before and after taxes. The exemption will thus have the practical effect of considerably increasing the available income of the persons and enterprises that benefit from the development legislation. The increase in available income will lead to an increase in the capacity to save of these enterprises. Whether savings will in fact increase will depend, for enterprises, on their dividend distribution policy.⁴ For individuals the increase in savings will depend on the marginal propensity to consume—or, looked at from the opposite standpoint, to save—at the new level of available income for each person.

No definite *a priori* conclusion can be reached on the last point, but it is relevant to record the general impression existing in Latin America that the high-income classes have a high propensity to consume. Consequently many Latin American economists advocate penalization of excessive consumption, rather than tax incentives, to obtain the same results, that is, an increase in savings.

As regards the factors that affect national savings, two different considerations must be borne in mind: (a) that the original investment in each enterprise covered by the legislation meant, at the time it was made, not investing the corresponding sum in another activity, or in other words, at that point the available savings were transferred from one use to another: (b) that the exemption represents an equivalent amount of tax revenue that the State loses. In practice it is difficult to reduce the State's current expenditure, especially short-term expenditure; hence, if the Government does not reduce its expenditure on investment (which would have

⁴In order to encourage a more conservative policy, some legislation, like the Central American uniform legislation, provides for exemptions on undistributed profits.

the effect of transferring State resources to those who benefit from the tax exemptions, there will be a transfer of real savings from other private sectors to the sector that benefits by the exemptions, through the State's recipient-expenditure operations.

This point can be made clear as follows. From the standpoint of the monetary economy the enterprise that receives a tax benefit thereby receives a monetary savings exactly equal to the monetary loss suffered by the State through granting it. But these savings or monetary resources, considered from the standpoint of the real economy, represent the power to dispose of a given quantity of real resources, in accordance with current prices. If the State refrains from spending a sum equal to the monetary resources it fails to receive, this amount of real resources remains at the exclusive disposal of the enterprise that receives the exemption, and the process ends without any repercussion on the other savers. If, on the other hand, the State resorts to its capacity to spend in excess of current income, and thus maintains its level of expenditure, certain other savers will suffer a reduction in their real purchasing power, either through the financing of the government loan, or through an increase in the price of real resources. This must be so because a given quantity of real available resources cannot meet two demands at the same time (that of the State and that of the enterprise receiving the exemption).

Consequently it is unlikely that the tax exemptions contained in such legislation can lead to an increase in national savings. On the other hand, if they are effective in promoting greater savings in the activities covered by the legislation, they may also lead indirectly to a redistribution of savings among the various savers.

A criticism often made of tariff exemptions on machinery and equipment imported under franchises accorded by industrial development laws is that to some degree they alter the relative prices of factors of production in favour of capital at the expense of labour. In Latin America, of course, capital is the scarce factor and labour abundant. As a number of economists have already shown, in economies of this type there is a basic economic advantage in making the maximum use of the abundant factor and economizing the scarce factor. All the more so since—as has been shown on a number of occasions, mainly in relation to industry—there is a tendency to underutilization of installed capacity, which means that to an unsuitable combination of factors is added a failure to make proper use of capital equipment.⁵

Latin American experience has furnished only certain qualitative data on the results obtained from the existing legislation. There are no statistics to make possible a specific analysis. But it is unquestionably true that in no case has such legislation resulted in a mass movement of entrepreneurs and investors seeking the benefits it confers. In Mexico, for example, where the earliest legislation dates from 1939, it is recognized that the number of enterprises that have taken advantage of the development exemptions has never been anything but very small, in comparison with the country's spectacular

⁵ It should be noted that such machinery is produced in the large industrial countries in the light of their markets and their interest in replacing manpower, which is a scarce factor, by capital, which is abundant; thus the equipment is not always suitable to economic conditions in Latin America.

growth since that date. In other countries the information available indicates a similar state of affairs.⁶ As already stated, despite the considerable exemptions granted by the legislation, the benefits have not been applied for on any large scale. However, it is true that the enterprises that have applied for the benefits or exemptions include a number of outstanding importance, particularly as a basis for the country's economic development, such as the steel industry and other heavy industries.

As to the practical results that can be obtained with such exemptions, Puerto Rico stands out as the definitive and conclusive example. Apparently amazing results have been obtained from the tax incentive in that country.⁷ Nevertheless, the view is taken here that this is an atypical case and cannot be advanced as an argument in discussing the particular case of Latin America. What has happened in Puerto Rico is really a case of regional rather than national development. Puerto Rico has in fact been economically integrated into the existing United States market, and there is a marked mobility of resources and goods between the two countries, thereby conferring on Puerto Rico, in addition to tax privileges, a potential market for nearly 200 million people with an extremely high purchasing power. Thus the tax exemption there has meant granting preferential treatment to the Puerto Rico "region" and to its factors, enterprises and goods. This should be regarded as an example of a regional redistribution of resources.

To some extent the case of the Nordeste region of Brazil is similar; here, too, the tax incentive system is giving excellent results. But in this case there are a number of factors contributing to the region's development, of which the tax system is only one. In the Nordeste region there is a special concentration of national efforts to develop this area; there is a plan or programme on a considerable scale, well defined and constructed and vigorously executed; a number of economic policy measures for this purpose have been adopted; ample resources are available to finance the programme, and general interest has been aroused in the plan to transform a market of 20 million people with very little purchasing power into an important producer and consumer market. Thus the basic conditions for the region's development have been established, or are being established, with the result that the tax instrument can operate with some degree of efficiency in conjunction with all the other factors referred to above. In addition, the method of using these factors is different from that used in the typical development legislation.

Thus although the basic legislation on the SUDENE (the body responsible for the development of the Nordeste region) includes provisions similar to those laid down in the more or less typical development legislation of Latin America, the former contains provisions that are not included in the latter. The similar provisions include (a) exemption from the various categories of

⁶ It should also be noted that in those cases where the number of enterprises taking advantage of the exemptions offered by development legislation is fairly large (in Central America as a whole there are about 500 such enterprises) this is no sure indication that the incentive has been effective. The most it shows is that the "cost" of applying for the exemption was less than the benefits conferred. There is no way of telling whether or not the activity in question would have been undertaken in the absence of the tax incentive.

⁷ Its capacity to absorb foreign capital is dealt with in section 4.

income tax for the new industries specified in the basic legislation, provided that these are established prior to December 1963, and (b) exemption from import duties for SUDENE for equipment intended for the Nordeste region, mainly equipment for basic industries and food industries, provided that the equipment is not second-hand or reconditioned, and that no similar equipment is manufactured domestically. But in addition the Executive Board of SUDENE can propose to the President of Brazil: (a) that he grant a favourable exchange rate for imports not covered by foreign currency, in respect of imports of equipment for the Nordeste region; (b) that he make available 50 per cent of the convertible foreign currency obtained from exports from the Nordeste region to be used for importing goods needed for the region, and (c) that SUDENE announce the priorities to be granted with respect to equipment. These last provisions represent a marked departure from incentives relating only to taxes, particularly in a country like Brazil where foreign exchange is in such short supply.

In addition, a large contribution of capital from other regions of Brazil is being furnished by virtue of the application of Act No. 3995 of 1961, which provides that a corporate body with a capital that is 100 per cent Brazilian can deduct up to 50 per cent of the income tax for which it is liable, provided that the amount of the exemption is to be invested in industries that are being promoted by SUDENE. This shows clearly that the aim is to develop a particular region of the country, to which preferential tax treatment is granted.

3. *The use of indirect taxation*

Indirect taxation can be regarded as an instrument of economic policy for changing a given structure of prices, and consequently a given structure of final demand, to bring them into line with a predetermined pattern of production. The objective or goal of the policy of using indirect taxation in this way is to obtain the changes in the existing structure of demand and of production that are called for by preconceived plans.

However, the results that can be obtained by the use of this instrument of economic policy are very difficult to foresee, and may even be exactly the opposite of those sought.

In the first place, if a general indirect tax at a single rate is applied to all goods dealt with in an economy, the first reaction of the entrepreneur will be to transfer the whole of the tax to the price of the goods. But as this also involves a reduction in the real purchasing power of the consumer, at the new supply prices, there will result a change in the structure of demand in accordance with the elasticity of supply for each type of goods. The eventual effect of this process will be a change in the price structure, followed by a corresponding change in the structure of production.

Yet this is not all; it represents at most what might be termed the first impact of the levying of such a tax. It must also be borne in mind, in the second place, that in so far as the tax is transferred to the price of intermediate goods, it spreads throughout the economy (to a progressively extent) through what are known as inter-industrial relations, in the form of the tax component of each input. Obviously, the difficulty of predicting in practice what final form the new structure of prices, demand and production will take is further

increased if the tax discriminates between different types of goods by means of different rates. This is so even though at first sight it would appear that the articles taxed most lightly could well be favoured by the tax discrimination.

As regards goods for final consumption, the idea developed by some economists of using indirect taxation with high rates on some goods consumed by the upper income brackets, together with heavy duties on imports of such articles, has not been applied in Latin America, at least in the way that these economists envisage for such a form of taxation. In fact this idea aims at discouraging certain types of consumption and certain production lines and imports, at least in relative terms. If the demand for such goods is relatively elastic, the duty will restrict the demand, and consequently production and imports of these items. The reduction in expenditure on these goods will free a proportion of income that could be devoted to increased personal savings. If, on the other hand, the demand is inelastic, the goods in question will continue to be bought, but in this case the State will obtain additional funds, from the heavy taxes on the articles, and thus it will be the national exchequer that is in a position to increase savings. It must be emphasized that this tax formula has never been applied in Latin America on an organized and systematic basis. Indirect taxation has in fact been used only to apply certain principles of control, or of a moral or social nature. In fact, apart from tariff duties, indirect taxes have been aimed only at discouraging consumption of certain items such as tobacco, alcohol and luxury articles, or at facilitating in some way the purchase of the goods habitually consumed by the lowest income groups. And although cases may be cited where such taxation has been used with the aim of encouraging a particular activity, they are quite exceptional.

Import duties, on the other hand, have been made use of fairly generally, for protective purposes, although not in any well defined way. The method varies from country to country, and in some cases the protectionist aim has coincided with pressing needs for additional revenue and for import reductions to redress serious balance-of-payments deficits.

Consequently it is not easy to determine whether tariffs have been used in Latin America for protectionist, revenue-earning or balance-of-payments purposes. But it can be established that tariffs have been applied not only in the form of the ordinary standard customs duty but also in other more complicated forms, such as exchange controls, multiple exchange rates, interest on prior deposits of considerable magnitude, etc.

In general there has been a certain tendency to use mixed tariffs, that is, a specific duty combined with an *ad valorem* duty. The exceptions to this are Brazil, where only *ad valorem* duties are applied, and Venezuela, which has only specific duties.

It should be noted that the specific duties are completely inelastic to price changes in that they are expressed in fixed values per given measure of volume or weight, or per unit. *Ad valorem* duties, on the other hand, are expressed in terms of the prices of the imported articles, and thus tend to mirror fluctuations in those prices. Of course they suffer from the administra-

tive disadvantage that it is not easy to establish a trustworthy tax base, that is, the external price of the goods.

Thus the Latin American countries, when introducing heavy duties on imported products that are similar to those whose domestic production is desired, usually combine them with exemptions from and reductions of customs duties and other taxes or quasi-taxes of similar effect, in a way that makes it very difficult to judge the effective incidence of tariffs on the various groups of goods affected.

In a study carried out by the Economic Commission for Latin America (ECLA)⁸ it was determined, on the basis of an approximate effective incidence of the various charges on imports, (a) that in most of the eleven countries studied the average taxation on primary commodities was less than that on manufactured goods for current consumption, not because the former duty was low, but because the latter was very high, (b) that taxation on raw materials was high, and (c) that except for two countries the rate of tax was higher on capital goods than on raw materials.

Clearly these conclusions are what might generally be expected in countries that are promoting their economic development. In the first place they wish to protect their consumer-goods industries from foreign competition, and secondly, they favour imports of raw materials, although without losing sight of revenue needs. As regards capital goods, which usually get preferential treatment when there is no balance-of-payments problem, their position during the years covered by the study referred to was not particularly favourable. Thus for imports of such goods the incidence of the tax on their price placed them at an advantage compared with manufactured consumer goods, but at a disadvantage compared with raw materials. The changes brought about by the effective tax rate during this period in the structure of the prices of imported capital goods were more or less in line with the economic interest of those countries in not favouring the prices of such goods in relation to the labour factor, as indicated elsewhere. However, this was not, of course, invariably true.

In any case, there is no doubt that tariff duties and related charges have been used in Latin America for protectionist purposes, and thus for the promotion of certain domestic activities.

4. *The use of direct taxation*

The taxing of corporation profits tends to lessen the private sector's incentive to invest and to drain its investment funds.

The first result, that is, its adverse effects on the incentive to invest, is explained by the fact that the comparison between the present worth of the income that the investment is expected to yield and the cost of the investment is less favourable after taxation. The second result derives from the fact that a profits tax necessarily reduces the amount of income available.

It has long been recognized that the taxation of profits is apt to have these effects. Efforts have consequently

been made to find tax devices for counteracting them, without, however, discounting the need for the tax, which brings a large amount of money into the Treasury.

One way of offsetting such effects would be to refrain from taxing profits that are retained, or, in other words, undistributed, by business concerns. This would be a form of incentive which, so far as is known, has never been used in practice. Another method of neutralizing them would be to adopt one of the various systems of accelerated amortization. Yet a third way would be to grant credits on funds that have actually been invested.

The implicit intention of a system for exempting undistributed profits from taxation is to give enterprises an incentive to increase their internal savings; more, it does actually increase them inasmuch as the profits are left untaxed. The endeavours to promote the formation of savings by enterprises instead of by individuals bear out the observation made in a number of industrialized countries, as, for example, the United States, that a high percentage of manufacturing investment is financed by funds provided by the enterprises themselves (self-financing). In that particular country nearly 70 per cent of fixed investment by companies is based on internal resources, and in the case of a few heavy industries the proportion is as much as 80 and even 90 per cent. It is thought that much of the fixed investment in Latin America (excluding that of foreign companies) is financed from the enterprises' own funds. This is particularly true in the case of medium and small-scale firms that have less access to outside sources, and all the more so in view of the fact that capital markets in the Latin American countries are not very well constructed and still in their infancy.

The objections to this system of encouraging enterprises to save are threefold: (a) the mere fact of retaining profits does not guarantee the investment of an equivalent sum; (b) reasons of control; and (c) reasons of equity. The fact that the enterprise does not distribute profits in a certain year or period of time does not mean that it is disposed to invest an equal amount. The funds thus retained may be used for a variety of purposes such as augmenting stocks or simply increasing liquidity. Thus, the act of saving on the part of an enterprise may be turned to account in a number of ways. The choice of one alternative rather than another will depend on circumstances that need not be entered into here.

The second objection concerns the loss of virtually irrecoverable income to the Treasury. Let it be assumed, for instance, that an enterprise has 100 monetary units of profit in a given year. Let it also be assumed that the tax rate is 20 per cent and that the enterprise retains 10 units of profit. Without a tax incentive, it would pay the Treasury 20 tax units. Let it be further assumed that the undistributed profits are tax exempt and therefore increase to 20 units. In these circumstances, the tax liability will be 16 units. The revenue accruing to the State is thus reduced by 4 units. If the 20 undistributed units are assumed to be invested, and the rate of return on the new investment is 20 per cent—which seems to be usual rate in Latin America—the enterprise will therefore increase its profits by 4 units. For the State to make good its initial loss of income the marginal rate for taxing the additional profits would have to be 100 per cent. Even if a firm operated at a much higher

⁸ See "Customs duties and other import charges and restrictions in Latin American countries: average levels of incidence", *Multilateral economic co-operation in Latin America*, vol. I (E/CN.12/621), United Nations publication, Sales No.: 62.II.G.3, paras. 77-79.

marginal rate of profit, it would still be essentially absurd to apply such high tax rate.

The third objection relates to the concession of preferential tax treatment to a particular social class, which is contrary to the first principles of tax equity. Given the special distribution of wealth in some of the Latin American countries, where it is in the hands of certain families that are, moreover, very few in number, a preferential system would tend to bring about an even more intensive concentration of wealth and economic power.

Accelerated depreciation would be another way of providing tax incentives for investment to counterbalance the adverse effect that income tax might have upon it. The gist of this method is that it allows for a larger write-off than the straight-line system during the first few years after the installation of equipment, although at the end of the equipment's useful life, calculated according to the tax schedule, only 100 per cent of its original value would have been amortized, as in the case of the straight-line system.

Systems of this kind have been adopted by a number of European countries, Canada and the United States. During the Second World War, the latter used this method of promoting investment in enterprises connected with the production of strategic war materials and, in 1954, established it on a general basis. Of the Latin American countries, only Mexico incorporated it into its business taxation system at the time of the tax reform in 1962.

Two of the many forms that the depreciation system can take are (a) the decreasing balance—or a simplified substitute for this in the shape of the sum of the digit-years of useful life of the amortizable equipment; and (b) voluntary depreciation, whereby the entrepreneur can, for tax purposes, write off the depreciating capital in one year or more as he chooses.

The straight-line system allows for the annual uniform deduction of a sum equal to the original value of the depreciating asset divided by the number of years of life accorded to the asset by the tax legislation. Under the decreasing balance system decreasing deductions are made for amortization, at a rate that may be three or more times as much as that applicable under the straight-line system. If the rate is assumed to be 10 per cent, the system would operate as follows: during the first year, the rate of 10 per cent would be applied to the original value of the equipment, in the second year, it would be charged on the balance, and so on in succession. A simplified version is the so-called method of the sum of the equipment's taxable digit-years of life. Annual amortization is calculated by applying a decreasing fraction to the cost of the equipment. The numerator of the fraction would be the number of years of useful life remaining to the equipment, and the denominator, which would be constant, would be the sum of the aforementioned digits. If the equipment has ten years of useful life left, the fraction for the first year would have a numerator of 10 and a denominator of 55 ($1 + 2 + 3 + \dots + 10 = 55$). In the second year the fraction would be $9/55$ and so on thereafter.

Edmonds has drawn up a table which, with an amortization rate of 5 per cent under the straight-line system and of 10 per cent under the other two, gives the depre-

ciation figure for equipment with a useful life of 20 years.⁹

Year	Straight-line	Decreasing balance (Percentage)	Sum of the digits
1	5	10	9.5
5	25	41	43
10	50	65	74
15	75	79	93
20	100	88	100

Voluntary amortization would be undertaken by the entrepreneur on his own judgement, and could be completed in the first year, or the original cost of the depreciating asset could be calculated on a *pro rata* basis for the number of years that would be most convenient for him. This system is supposed to give the greatest incentives to invest in new amortizable equipment, though it is admittedly apt to enhance some of the undesirable effects of the other systems of accelerated depreciation.

Before going any further it should be pointed out that, from a strictly fiscal point of view, accelerated depreciation simply means the postponement of tax payments to the last years of the equipment in question. If depreciation reduces the amount of profits liable to taxation, it is clear that a sliding scale system with high annual amortization payments in the early stages cuts taxable profits during that period, and increases them in later years when the amortization quota is less.

As explained before, accelerated depreciation systems approach the question of encouraging investment from two different standpoints. One aim is to make the investment more attractive and the other to increase the enterprise's own resources for financing.

In what way or through what means can accelerated depreciation help to create or increase investment incentives?

The fact that these systems give entrepreneurs a chance to write off a substantial part of the equipment's cost in the early stages means that they can recover their original outlay far more quickly by deferring payment of tax (see Edmonds' table in which he demonstrates that 74 per cent of an asset's original cost can be recovered in half its useful life with a low amortization rate of 10 per cent).

The entrepreneur thus has two facts in his favour: first, the risk is less and, secondly, the outlay implicit in his calculations for covering the cost is smaller and the interest rate chargeable on the equipment is lower. The upshot is that the depreciating equipment invested in for the purpose of plant expansion will cost less in real terms from the point of view of the entrepreneur.

If the decision to invest is based on a comparison between the present worth, at the prevailing interest rate, of the returns that are expected from the investment and the actual cost of making it, the lower the cost the more attractive the investment will be. Thus, the entrepreneur's decision will be governed by his chances of making a profit, by the interest rate and by the cost.

It is evident that the higher the rate of amortization, i.e., the shorter the time in which the bulk of the equipment's cost can be recovered, the lower will be the real

⁹ See William J. Edmonds, *National Tax Journal*, vol. VIII, March 1955.

cost of the equipment and the greater the incentive to invest. Consequently the terms of the accelerated depreciation system should be liberal enough to achieve its objectives.

In the United States at least, systems of accelerated depreciation with rates that are not particularly high do not seem to have been noticeably successful in stimulating investment. The article by Edmonds gives the findings of a survey carried out when the accelerated depreciation system was adopted in 1954. This survey indicates that 60 per cent of the enterprises questioned did not intend to speed up their capital expansion programme, 27 per cent hoped to do so to some extent and only 13 per cent actually planned to accelerate it.

The way in which the depreciation mechanism works makes it possible for more investment to be self-financed. The fact that it allows for more amortization than the most extensive straight-line system—in Latin America at least—represents a tax advantage whereby the enterprises have more funds at their disposal to invest if they wish. But, as pointed out before, there is no certainty that the funds will be used for that purpose.

Admittedly, in enterprises that invest at a constant or increasing rate, tax payments are constantly postponed. From this point of view, i.e., the expansion of investment funds, the system of accelerated depreciation becomes more favourable the higher the rate at which expansion takes place. Of course the fraction of tax that the State refrains from collecting from the enterprise is also larger. Consequently, the general revenue accruing to the national exchequer will be less than it was before the introduction of the tax incentive, unless a substantial autonomous increase takes place in investment. And the higher the rate of amortization, or, to put it another way, the shorter the time in which the bulk of the asset can be written off, the greater will be the revenue loss in the case of enterprises in rapid expansion. The fact that the shortening of the amortization period to ensure that the incentive will be effective may conflict with the need to obtain revenue is one of the criticisms that is constantly being levelled at the system of accelerated depreciation.

Apart from a blanket reduction in the tax rate, there are some practical alternatives to accelerated depreciation. There is, for instance, the United Kingdom system of establishing a tax credit on the cost of investment in the year in which the investment takes place. The credit would be 10 per cent on real property and 20 per cent on machinery and equipment, and in itself constitutes an incentive to such investment. The advantage of this system of incentives is that the credit percentages can be varied in accordance with economic conditions, thus giving the system greater flexibility. In Cary Brown's opinion¹⁰ it is more effective as a stimulus than the accelerated depreciation system established by the United States in 1954. Another point in its favour is the fact that the enterprise's systems of fiscal depreciation and book-keeping would coincide, thereby doing away with the problem of different systems for determining fiscal and commercial value.

The system of total or partial tax exemption for invested profits is fairly widespread in Latin America;

it acts essentially as a tax credit for investment and could be assimilated into the system of accelerated depreciation.¹¹ What is now being done in the United States is to establish a credit over and above the level of investment on depreciation each year. This implicitly favours the dynamic enterprises that are adding to their capital.

It has been contended, on economic grounds rather than for purposes of equity, that credit systems should differentiate between types and sectors of activity. The reason is that every development programme tries to push some sectors or activities ahead more rapidly than others, and that this may even lead to the creation of "disincentives" in the case of the latter. The discriminatory application of incentives can be managed more flexibly through the use of credits than through accelerated depreciation.

5. *Tax incentives for foreign investment*

A low volume of savings and inadequate capacity to import have limited the investment coefficient in Latin America, and thus made it difficult to speed up the rate of development. If inflation is ruled out as a deliberate device for increasing the coefficient, the only way the Latin American countries can supplement their domestic savings and add to their capacity to import in order to develop more rapidly is to attract capital from abroad. This basic principle has been enshrined in one form or another in every body of tax laws. For instance, special laws have sometimes been promulgated to create in a systematic fashion a suitable climate for investment (Argentina); in other cases, preferential tax treatment is accorded implicitly or explicitly by the development laws (Central America, Colombia, Ecuador).¹² Again preferential treatment may go hand in hand with the right to exploit certain natural resources, as, for instance, in the case of the mining companies in Peru.

When a country grants tax immunity to a foreign agency, thereby sacrificing part of its capacity to collect tax revenue, it does so with the aim of expanding the national product and its capacity to import. The merits of a system of tax incentives for foreign investment should therefore be weighed in the light of the incentive's actual effectiveness and the extent to which the product grows as a result of the investment.

For this purpose, it is useful to make a classification, even on a broad basis, of the activities that offer a good field for foreign investment, dividing them into three groups as follows: (a) those that produce for the home market extensive use of domestic factors; (b) those that produce mainly for export and also employ a considerable amount of domestic factors; and (c) those producing mainly for export but employing domestic factors on a very small scale. The efficacy of the incentive will first be determined, and then its effects in each of the three cases.

¹¹ Financial claims have at times triumphed over attempts to stimulate investment. In Argentina, profits invested in certain fixed assets have been tax-free for many years. But on 29 August 1962 the exemption had to be lifted—except in the agricultural sector—for urgent financial reasons.

¹² These laws seldom discriminate between the national and the foreign investor. At the very most, they refrain from extending all the immunities to the foreigner who is taxed in his own country on his foreign investment income. The reason for this is that the tax nullifies the incentive that the development laws are attempting to provide.

¹⁰ See E. Cary Brown, *National Tax Journal*, vol. VIII, March 1955.

The economic reasons for which capital seeks an outlet in other countries stem from the fact that a higher rate of profit is obtainable there than in its country of origin. The greater the risk in investing abroad, the more difference there has to be between the two rates of profit. Political and social tensions, economic instability and the prospect of recurring devaluation in a country—whether they actually exist or are liable to arise—raise the degree of risk to the point where a high rate of profit no longer holds out any attraction. What is more, in many developing countries, the profits from foreign investment are subject to payment of income tax, and if a similar charge is levied in the country where the investment is made, the difference between the two rates of profit will have to be increased by the amount of the double taxation.

Given the different economic characteristics that obtain as regards the relative supply of factors in the investing and recipient countries, the rate of return is likely to be much higher in the latter. In fact, if the remuneration of the individual factors depends on their relative availability, in countries such as those of Latin America, where labour is abundant and capital scarce, capital remuneration will be relatively higher. In the developed countries, which have plenty of capital but little labour, the rate of yield will be lower. This provides the requisite economic base for creating an international flow of capital, but whether the flow will materialize depends on the adverse factors that reduce the rate of profit in itself.

Tax exemptions may be a means of totally or partially offsetting the effects of these adverse factors. Their efficacy will depend on the difference between the amount of the exemption and the degree of risk involved. In many cases exemption thus becomes completely impracticable. But certain countries where the degree of risk is likely to be high continue to receive a flow of private foreign investment. This is often because the capital is granted certain privileges that are marginal or supplementary to tax incentives, such as exclusive rights of exploitation, concessions or the like, thereby distorting the market in favour of activities holding out prospects of high profits. Naturally these market imperfections can, and actually do, constitute a more powerful force than tax incentives for luring capital from abroad. But the question that immediately presents itself is whether it is politically, economically and socially expedient to create market imperfections in order to favour foreign investment.

To sum up, in the countries where the degree of risk is low because of their political, social and economic stability, tax exemptions may act as a stimulus to foreign investment.

In this respect, Puerto Rico is often held up as a case in point. But it should be stressed again that it is not applicable to the Latin American countries considered individually and not as a region. The case of Puerto Rico is in fact, one of a regional reallocation of resources for the reasons given in section 1. Let it now be assumed that all the Latin American countries grant equal franchises to foreign capital. This will not be a special incentive to foreign capital from the standpoint of the individual countries since the same treatment is given by each one. By definition, an incentive requires the existence of comparative advantages, which would dis-

appear should a blanket franchise be granted by the whole region. Foreign capital would continue to flow into Latin America, but to specific countries, and certainly not in response to the tax incentive, but because, from the investor's point of view, the economic conditions are more favourable in one country than in another. The same result would presumably be obtained if the rate of tax—exclusive of exemptions—were the same everywhere.¹³

This argument explains one of the main differences between the case of Puerto Rico, which forms part of the United States market with its relative tax advantages, and that of the Latin American countries, which are struggling to attract that capital.

To a certain extent the economic effects of the tax incentive will vary in the three groups of activities open to private foreign investment. They are reviewed below in the corresponding order.

(a) If the activity selected by foreign investment produces primarily for the home market, undertakes import substitution and employs a large proportion of domestic factors, it will undoubtedly be boosting internal income. It does this directly through payment of the factors employed. And if, in addition, the bulk of the inputs used by the activity are domestic in origin, the investment will have a beneficial side-effect by stimulating allied activities and derived income payments on the factors used in them. Even if some of the inputs are imported, it would always be advantageous for the value added to them to be national. This would also have a favourable effect on income and balance of payments (even with remittances of profits abroad included). An additional advantage occasionally crops up in that a certain type of technology may be introduced into the country together with the capital and will result in the training of a particular kind of skilled worker.

In this case, then, the fact that the State's capacity to collect revenue may be temporarily diminished will be compensated by the benefits to the country of a larger volume of resources and a higher national income level.

(b) The second group comprising activities mainly geared to external markets, but using a high proportion of domestic factors, is similar to the first, the main difference being that one produces for export and the other for the home market. But their ultimate influence on income and the balance of payments would be the same.

(c) The third group is entirely different. Here, the activity's contribution to the domestic product and balance of payments depends to an overwhelming extent on the way it is taxed and the use which the State makes of the resulting revenue.¹⁴ Consequently, substantial tax

¹³ Tax incentives granted by the importer countries do not have the virtue of increasing the supply of capital in the exporter countries. Within certain narrow limits, the amount available for investment abroad is primarily dependent on internal factors in the countries that export capital. Thus tax incentives granted on an equal basis by the countries importing capital cannot do more than bring about a geographical redistribution of capital. This fact should be borne in mind before intensifying the tax incentive push that is a common feature of under-developed countries and concluding an international agreement establishing equivalent tax treatment for foreign capital.

¹⁴ It should be remembered that the economic activities included in the hypothesis make very little use of domestic factors of production.

exemptions would greatly reduce the desirability of such investment, particularly when it is directed towards the exploitation of non-replenishable natural resources.

This will be made clearer if a specific example is given, as, for instance, large-scale copper mining in Chile in 1954. This activity employed less than 1 per cent of the active population in the country and contributed less than 2 per cent to the gross product through internal factor payments—so-called local costs. Nevertheless, the net value of production was approximately 19 per cent of the net figure for the country as a whole. And copper exports represented 60 per cent of Chile's over-all external sales. If the State had not taxed copper mining, the total contribution made by this activity to the Chilean economy would have been 2 per cent of the product and not more than 11 per cent of the capacity to import.

With taxation, the picture changes altogether. The contribution actually made by mining to the gross product was about 12 per cent—through the revenue collected and its expenditure by the State—and a little more than 60 per cent to the capacity to import.

Now if Chile had reduced the tax rate on this activity by 50 per cent to stimulate copper production, what would the level of production have had to be merely to compensate for the loss sustained by the gross product and capacity to import? From about 350 000 tons, output would have had to climb to more than 600 000 tons. For technical and market reasons, and given the international production and price policies followed by the international mining consortia, it would not have been easy for Chile to produce the necessary quantity of copper over the short term, and the result would have been a net loss for the economy.

Peru is at the other end of the scale from Chile, which levies heavy taxes on its big copper-mining companies. In Peru the tax rate is extremely low in comparison with the Latin American standard, and can be regarded as a potent incentive.

Up to 1962 at least, copper mining in Peru has, in fact, been subject to a general law on income tax.¹⁵ In 1947, income tax, which was 7 per cent for mining, was supplemented by a tax of 14 per cent on excess profits. For copper mining, excess profits were defined as the balance over and above the profits obtained by the companies in any year from 1944 to 1946 inclusive. Later, in 1952, the law exempted mining in general from payment of the excess profits tax, and since then, copper mining has paid 7 per cent on its level of profits in any year between 1944 and 1945. In other words, this activity has been enjoying the benefits of a fixed rate on a fixed taxable base. Consequently, whatever their level of activity the mining companies pay what is in effect a fixed amount of tax. This substantial incentive is made even greater by the fact that amortization for depletion of the deposits is added to the cost of production.

The same system was applied to the Toquepala company, although the taxable base was fixed by the Government on the basis of unknown estimates as the concern did not exist in 1944-1946.

¹⁵ At one time there was a small tax on exports, but it was considered, in practice, as an advance on the final payment.

Production trends did not follow the same course in the two countries. In Peru copper output increased by 40 per cent between 1947 and 1952 and by 70 per cent between 1952 and 1959, while in Chile it remained at the same level until 1952, rising thereafter by 35 per cent. But, as taxation is the medium through which copper mining shares in the domestic economy, the influence exercised by the production increment on the national product and the balance of payments has been far greater in Chile than in Peru, given the real rate of tax in each case.¹⁶

6. Agricultural taxation

There is a consensus of opinion today to the effect that for the last twelve years agricultural production in most of the Latin American countries has registered a relative stagnation, or at best a slow rate of growth. In some countries this is particularly true of agricultural production for export, and in others of production for domestic consumption. An analysis of this phenomenon and its causes would be out of place here, but studies by experts ascribe it to the operation of the following factors, separately or in conjunction: (a) problems deriving from the shortcomings of the land tenure system; (b) the lack of entrepreneurial spirit, in many cases, among landowners; (c) the primitive nature of the technology applied; and (d) diversion of resources to other sectors. The last two factors are generally linked to the effects of relative prices, which have acted as disincentives to agricultural production.

Given this state of affairs, some thought must be devoted to the part the tax instrument can play—if any—in eliminating such handicaps to the development of the sector.

The fact that relative prices have been unfavourable to the agricultural sector may have been due to two basic causes: (a) depressed price levels on the markets concerned (the world market in the case of export items, or the domestic market in that of commodities produced for home consumption); and (b) the official imposition of low prices as a means of subsidizing specific branches of consumption or specific social classes. With regard to depressed markets for agricultural commodities, it is possible—although not certain, to judge from Latin America's experience—that better prospects in respect of profits (price minus costs, including taxation) may do something to encourage production in the agricultural sector. Thus a tax reduction might improve the prospects in question. But in view of the established fact that the taxes to which agriculture is subject are low in almost all the countries of the region this improvement would not be very great, in terms of absolute values. It might even fail to make any difference whatever, for example, to the technology applied at present.¹⁷

¹⁶ In Chile the rate is 50 per cent, with a variable additional charge which is used to stimulate production. This charge, which can be as much as 25 per cent, is proportionately reduced as production increases. Chile thus makes sure of obtaining tax revenue and also provides a certain amount of incentive to expand output.

¹⁷ The case of Argentina is worth citing in this connexion. From 1940 to 1945 the agricultural sector was affected by the export difficulties deriving from the Second World War. The Government had virtually to subsidize farming in order to maintain its future production possibilities. In the years immediately following the war, the Government took advantage of

Some interest in the possible links between agricultural taxation, the land tenure system and production increments is now becoming apparent, although the literature on the subject has not yet systematically and exhaustively covered the ground. It does, however, advocate a specific form of the ancient land tax, with heavier rates, so that penalization of the sector would be used as an "incentive" to attain the targets established.

The tax base would then be the imputed value of the potential production of the land held, and that value could be established either individually for every plot of land or by assigning to each holding the average potential value determined for the area in which the land is situated. Prerequisites for assessment on this basis are a cadastral survey and the consequent availability of such individual values or area averages. Another problem involved is that of periodic reassessment, which of course becomes easier if the base is established in terms of the average for each area. In any case, given a certain degree of price stability, reassessment would be necessary only at fairly long intervals. The cadastral survey system, whose merits have been exalted by European economists ever since Maria Theresa of Austria introduced it in Lombardy, implies the assumption that values will remain constant for periods of not less than ten years, if it is to produce the desired effects on the level of agricultural output. Should price instability processes continually recur, the base constituted by the average assessment for the area, and price indices for agricultural commodities, would facilitate the necessary periodic reassessment without too much trouble or unduly high costs.

The tax base thus established, some of the supporters of this type of taxation advocate the levying of a proportional tax, while others maintain that progressive rates should be applied, or that the two should complement each other, as in the case of personal income tax.

Given the tax base in question, the idea of a proportional tax is to promote an increase in agricultural productivity and consequently in the sector's total output. If the rate of taxation is sufficiently high, it will compel landowners to farm by more intensive and rational methods in order to reduce the real incidence of the tax and avert the losses or curtailment of their present profits.¹⁸ To supplement such a proportional rate with a progressive system would not only serve the objective of expanding production, but would also, after its own fashion, further the redistribution of agricultural land and income. The establishment of a tax schedule by virtue of which higher marginal rates are applicable as

the upward trend in world prices to finance its own expenditure by appropriating, through the exchange rate and official purchases of crops, the potential profits of the agricultural sector. From 1955 up to the present date the authorities have continued to provide agriculture with all sorts of incentives, even promoting a mass internal redistribution of national income in favour of this sector. Nevertheless, production has not responded, and still less have there been any large-scale efforts to improve the technology applied. On the other hand, there have been no cases of selling of land or decreases in the relative values of agricultural property, even in the periods when "disincentives" were strongest for this activity.

¹⁸The criticism levelled at this proportional rate is that it would not be equitable, since the average rate applied is the same whatever the potential value of the land held. Even if smallholders were taxed at a lower rate or exempted, other taxpayers would still be carrying unequal shares of the burden.

land values increase, determines *de facto* that the average rate rises with these values. Thus, in the last analysis, given a particular structure of the progressive scale of rates, the landowner will find it expedient gradually to get rid of some of his land when its aggregate value exceeds a specific tax base, so that he may move into a lower tax bracket, where he is subject to a less burdensome average rate. Since, in addition, the trend of property taxes is towards capitalization (at the discounted value of the tax in accordance with the prevailing rate of interest), the sales value of the land will consequently decline, and this will facilitate its subdivision. Again, as will readily be understood, progressive rates would operate, as in all cases of progressive taxation, as an instrument of income redistribution, or rather, of equalization of income.

Of course, if a tax of this kind is to be given an organic and efficient structure, the following basic elements must be available: (a) a good soil map, preferably prepared on the basis of aerophotogrammetry; (b) a good cadastral survey; and (c) a satisfactory cadastral assessment consistent with the presumed or potential value of each farm's yield.

The structural and organizational complexity of this tax base, its cost and the technical elements entailed, in conjunction with other factors, have precluded the creation of a favourable atmosphere for the introduction of this tax in Latin America. Throughout the region there is a tendency to cling to obsolete models, characterized by defective cadastral surveys, under-assessment and low tax rates. The sole exception, up to a point, will shortly be the case of Chile, which already possesses the aerophotogrammetrical and cadastral surveys with the assessment referred to, an agricultural tax bill having been presented to Congress (in 1962) on this basis. As far as is known at present, a single rate will be applied, and will not be very high.

In any event, until the above-mentioned basic elements are available, there are alternative ways of taxing agriculture on more rational bases, which, taking into consideration the principle of *penalization*, will be conducive to expansion of this sector's output and the tax revenue accruing therefrom.

7. Clash between the provision of incentives and the collection of tax revenue

Broadly speaking, the provision of tax incentives—through exemption, derating, credits, deductions, preferential treatment, etc.—means that during a preliminary phase the State collects less tax revenue than it would obtain if such incentives were not granted. Over the longer term, if the operation of the incentives has been effective and has promoted an expansion of national income, and if the tax system is sufficiently flexible, the State can recoup itself, by virtue of this dynamic growth process, for its initial loss of revenue. Hence it is essential to ascertain the extent to which the tax incentive is really efficacious, and its influence on the elasticity of the tax system.

The considerable and increasing share of the public sector in the total national expenditure of the Latin American countries is a statistically proven fact. For an objective evaluation, a few statistical data will suffice. In such countries as Argentina, Brazil, Chile, Colombia, etc., between 15 and 25 per cent of total national ex-

penditure is effected by the State. From 20 to 30 per cent of this expenditure is channelled towards fixed capital formation, so that public investment averages 5 per cent of the national product. What is more, generally speaking, in Latin America investment by the public sector tends to constitute over 30 per cent of total investment, and in some instances even exceeds 40 per cent.

The high proportion of national expenditure represented, according to the foregoing figures, by the expenditure of the public sector is not due to fortuitous causes or purely arbitrary decisions. On the contrary, it is the inevitable result of the peculiar social and economic characteristics of the Latin American countries. In all of them there is a burning need to expand, improve and develop all the fixed social capital required for the process of economic growth. The formation of this capital, in the main if not entirely, is *de facto* incumbent upon the State.

In consequence of the low levels of national income prevalent in the countries of the region, of its regressive functional distribution and of the high propensity to consumption of the upper income brackets, national savings too are low, and are concentrated in a few hands: in the small high-income groups and (in the shape of undistributed profits and reserves) in enterprises which are also largely controlled by the same group of income recipients. In almost all the Latin American countries, the vast population sectors whose income levels are low have virtually no savings capacity whatever. Thus, as a general rule, the requisite bases for the establishment of broad and efficient capital markets are lacking. These limited and concentrated private savings are of course channelled partly towards productive activities whose rate of return is high, but partly also towards investment whose social productivity is negligible.

By its very nature, investment in basic social capital entails a rate of saving too intensive for most private investors to reach, in default of the capital markets referred above. Since, moreover, the financial yields to be expected from such investment are low, and usually take a long time to mature, it is completely without interest for private capital. For the same reason, and others that there would be no point in adducing here, this type of investment holds no attraction for foreign private capital (direct investment) either. Moreover, a considerable proportion of the fixed social capital in question is of such a nature as to fall within what, in Latin America, is regarded as the exclusive province of the State.

Fundamental as is the importance of such public investment in social capital, other causes are responsible for the increasing significance of State expenditure within total national expenditure. Professor Schumpeter developed the idea of the "entrepreneur-innovator" as the motive force behind the industrial revolution in the developed countries. Singer, in his turn, introduced the concept that in the under-developed countries the "entrepreneur-innovator" has been partly superseded by the "innovator-State", meaning by this that in such countries the public sector has become one of the dynamic factors in their internal economy. In most of the Latin American countries this is an established fact and must be accepted as such.

Either directly, or in co-operation with private capital, the State has been discharging the role of entrepreneur in Latin America in many productive activities which are highly capital-intensive and which, in one way or another, had to be undertaken, for over-riding reasons of economic policy, without much regard for their short-term financial yield, since they merited high priority from the standpoint of an effective basis for more rapid economic development.

This cursory explanation may serve to give some idea of an important—although not the only—aspect of the contribution the State must make to economic development, the magnitude of the non-inflationary resources that it must tap, mobilize and channel in a process of development combined with stability, and the complexity of execution of this State function.

The counterpart of the allocation of real resources which such real capital formation ultimately signifies is the financial fact that a proportion of the national product must be periodically tapped. The size of the proportion thus appropriated by the State for the financing of the public sector will be determined by the rate and pattern of economic growth. But, to judge from the experience of the few Latin American countries whose development in the recent past has proceeded steadily and at a satisfactory pace, such resources are likely to absorb an increasing share of the product in the future. If, as is logical, the possibility of resorting to a swift expansion of public credit, or to an equally rapid inflationary process, is not entertained as a means of procuring the additional real resources needed by the State, the conclusion must be reached that the rate of growth of tax revenue must be higher than that of the national product.

Thus, the first purpose that must be served by the tax system is that of providing the State with the resources it requires: in other words, fulfilling an essentially fiscal or financial function.

The effective discharge of this primary function has been hampered in the past by two different factors: (a) the external vulnerability of many tax systems; (b) the low income-elasticity of these systems.¹⁹

To judge by what can be seen, the tax system in many Latin American countries is highly vulnerable externally. In other words, the fluctuations in the external sector have a potent and similar effect on tax revenue. When such vulnerability exists, the tax system and revenue collection rely to a great extent on taxes on the external sector. For instance in Chile, Peru and Venezuela, they bring in 40 to 60 per cent of total tax receipts. Moreover, in a large number of Latin American countries, import duties alone account for 15 to 25 per cent of over-all tax proceeds.

The annual fluctuations that took place in Latin America's foreign trade from 1948 to 1959 averaged more than 10 per cent, whereas those in the gross product barely amounted to 2.5 per cent. When tax revenue was

¹⁹ The income-elasticity of the tax system, or, more shortly, its "elasticity coefficient", may be defined as the ratio between that percentage of the increment in tax revenue which derives from the growth of the national product and the percentage of total revenue represented by the whole increment. If this ratio or coefficient is less than unity, the system is inelastic, and if it is greater than unity the system is elastic. Of course, the higher the coefficient the more elastic the system will be.

obtained largely from foreign trade, it was affected far more profoundly than when it depended on the gross product. This, together with the system's low income-elasticity, which derives partly from the same circumstances and partly from others that need not be enlarged upon here, make it extremely difficult to finance the public sector without inflation.

In view of the magnitude of the resources required to finance a volume of public expenditure that should increase more than the gross product in the near future, the problem presented by the inflexibility of the system is only too clear. When there is tax rigidity, any inflationary process will keep public revenue lagging behind expenditure.²⁰ And even without inflation, rapid economic growth in the present state of the tax system will also mean that receipts will be less than public expenditure and the national product.²¹

Both the external vulnerability of the tax system and its inability to adopt to the growth of the product give rise to induced fiscal deficits which are, of course, very different in their origin and effects from those voluntarily incurred by the State to fulfil certain aims in its general economic policy. In fact, induced deficits have played a part in the undesirable processes of internal and external instability from which the Latin American economies have been suffering, by accentuating them when they already exist or by helping to create them in the first instance.

These few considerations will show the magnitude of the contradiction between the urgent need to finance an ever-larger volume of public expenditure and the broadening system of incentives, the first effect of which is to enhance tax rigidity. This contradiction can be evaluated from two points of view: the static, which limits analysis to the initial impact of the system, or the dynamic, which entails an investigation of the relation between incentives, a continuous process of economic growth and the elasticity of the tax system. As the dynamic approach is the most appropriate for the problem, it will be dealt with in more detail.

²⁰ From the standpoint of the real economy, physical resources can be allocated to the State as always, but on the basis of fresh inflation.

²¹ There is also a close relationship between tax policy and monetary policy. In actual fact, a chronic fiscal deficit precludes the possibility of evolving an autonomous monetary policy. Fiscal requirements, which cannot be opposed, in the last issue, by any central bank, lead to an expansion of the primary money supply, and eventually to the formation of a whole supply pyramid through credit expansion. To prevent this dilation from taking place, a restrictive credit policy would have to be imposed on the private sector. Without such a measure, the motivating factor in inflation would be reactivated. It is evident that the autonomy of the monetary policy is considerably jeopardized by fiscal benefits. In any case, it is believed that a restrictive monetary policy has a more unfavourable effect on private investment than a higher average rate of tax. The depressive effects of the latter are felt at the level of the marginal rates that are related with the substitution effect of the tax, since a system with a high average rate of tax that maintains the marginal rates at a prudent maximum will not necessarily have an adverse effect on investment (income effect of tax). On the other hand, the depressive effect of restrictive monetary policy is not simply the result of limitations on investment credit but of its repercussions on the rate of interest and marginal utility of capital, i.e., on the motives at the very root of the propensity to invest. Consequently, once it is believed that public expenditure has to be increased over and above the gross domestic product, taxes must obviously be raised and the tax system made more elastic.

Let us assume that a system of tax incentives achieves two of the basic objectives that it can aim at: to increase the investment coefficient (and of course the private savings coefficient), and to increase the product-capital ratio over the long term. This would promote economic development, in the sense of a process that brings about not only a more rapid increase in the product than in the population, but also a change in the structure of production.²²

The constant increase in production that is achieved means in fact that there is a constant broadening of the tax base of the economy. As far as direct taxes (income and wealth taxes) are concerned, this broadening is due to the increase in national wealth and income attained through economic development. As regards indirect taxes it is due to the larger volume of internal transactions and imports that development entails. But what is the effect on the amount of tax revenue actually received by the Treasury? The incentives system by definition contributes to some extent in reducing the system's elasticity. If the development process does not play its part in offsetting these effects, tax revenue, on the basis of the already very inelastic systems that prevail in Latin America,²³ will tend to increase less than the gross product and than public expenditure, as already indicated. Thus it must be determined whether economic development can endow a given tax system with more elasticity.

First it is useful to summarize what are some of the factors that affect the system's elasticity:

(a) The elasticity is reduced when prices increase, through the time difference between the moment at which the tax obligation is incurred and the moment when the tax is actually paid.

(b) The elasticity is associated with the rate structure of the principal taxes.

(c) The elasticity is restricted in so far as there are substantial taxes based on a fixed or specific value.

(d) The elasticity is affected by the changes in the structure of production that result from economic growth.

There is no prospect that economic development, that is the growth of the product, will correct the rigidity factor referred to in item (c), since this factor is inherent in the tax system itself. On the other hand it can affect the elasticity of the system through factors (a), (b) and (d), which will now be examined in that order.

(a) It has been the general experience in Latin America that where a steady and rapid growth of the product is achieved, it is accompanied by some price increases. Venezuela might be cited as one of the few countries that in the fairly recent past has attained such a growth in conjunction with marked price stability. This is not the place to analyse the reasons for the positive correlation between economic growth and the level of domestic prices. However, the reference to this point is important, since if there is the same association,

²² In this last respect attention is drawn to earlier references to the reallocation of productive resources by sectors in order to achieve the long-term increase in the product-capital ratio.

²³ As far as is known only two complete studies have been made on the elasticity of the tax system, in Chile and Colombia. In both cases it was shown that in the long run the system is inelastic. Incomplete studies made in other countries lead to the same conclusion.

or a similar one, between prices and development in the future, the time difference between the incurring of the liability and the payment of the tax must have a negative effect on the tax revenue-gross product ratio. In view of the difference in this respect between direct and indirect taxes, the negative effect is likely to be more marked in systems based on direct than on indirect taxes: for direct taxes the time lag between the incurring of the liability and the payment of the tax varies, but is always considerable; for indirect taxes, on the other hand, there is practically no time lag, and consequently the revenue-gross product ratio is not affected by price increases. Practically all the Latin American countries, apart from Colombia, base their tax systems on indirect taxes, and are therefore less subject to a reduction in the elasticity of the tax system through this factor alone.

(b) The rate structure relates mainly to income tax, and its effect on the elasticity of the system must be studied in the light of how broad the base of this tax is.

As already shown by such writers as Slitor, Musgrave, etc., there is a close relationship between the elasticity of income tax and its progressive, proportional or regressive nature. A tax with progressive rates is elastic, one with a proportional rate has an elasticity of unity, and a tax with regressive rates is inelastic. This is because in the first case, as personal income increases it passes into brackets with increasingly higher marginal rates, so that the increase in personal income determines the application of a higher average rate. If on the contrary the tax is proportional, the average rate is the same whatever the level of personal income. If the system is regressive, the average rate will be lower for each increase in personal income; this is true of a fixed equal rate for all income levels.

All systems of personal income tax in Latin America can be assumed to be, by and large, of a progressive type, and thus economic development will result in a more rapid growth of tax revenue than of the gross product. That is, the elasticity of the system will be greater, the more progressive the tax rates applied to the higher income brackets, for a given pattern of income distribution. But if the distribution itself is changed by the development process, the tax base will also be changed, and consequently the inelasticity of the tax system.

Whether the elasticity increases or decreases with the redistribution of the expanding personal income will depend on the broadness of the base, the form in which income is concentrated in the various groups of recipients, and the progressiveness of the marginal rates for each of these groups.²⁴ In any case it seems likely that a process of economic development whose benefits extend to all social strata will have a favourable effect on the elasticity of the tax.²⁵

(c) It is easy to see why the elasticity of the tax system is changed by the structural changes in production and imports that result from development. The

²⁴ All this is on the assumption that the non-taxable minima, deductions and allowances provided for in personal income tax remain at fixed levels. Any variation in those conditions would also alter the tax base.

²⁵ This is also due partly to the fact that the present base appears somewhat narrow in certain countries.

total elasticity of the system is represented by the weighted average of the elasticities of the various taxes, the weighting factor being the product of each tax. In other words, if there is a change in the relative contribution of each tax to total tax revenue, there is consequently change in one of the elements that determines the elasticity of the system as a whole. And such changes in the contribution of individual taxes can easily result from the structural changes brought about by economic development.

As regards imports, the changes in this respect that have taken place in Argentina, Brazil, Chile and Mexico, for example, have meant the replacement of purchases of consumer goods (mainly durable) by domestic production, the goods in question having yielded their place in the import schedule to raw materials and capital goods. The measures of encouragement used to assist these import substitution processes have included, at least in a limited form, preferential tariff treatment of raw materials and capital goods. Thus the changes in the structure of imports have presumably been accompanied by changes in the contribution of the duties on each group of goods to the total revenue from import duties. It is understandable that these changes will have had a corresponding effect in reducing the elasticity of the tariff system as a whole.

The effect produced on the elasticity of the other taxes by the changes that have been taking place in almost all the Latin American countries is less clearly marked than in the case of imports. But in view of the reduction in the relative importance of agriculture nearly everywhere, particularly in relation to industry and to certain services, and the lower taxes traditionally levied on this sector in the past (even including the export taxes levied in some countries in place of an income tax), it is possible that the structural changes that have occurred have led to an increase in the elasticity of the tax system as a whole, or a reduction in its rigidity.²⁶

If any conclusion had to be drawn respecting the relations between economic development and the elasticity of the tax system, it could not be of hard and fast nature. From some standpoints an increase in elasticity might be expected, and from others a decrease.

This lack of any definite conclusion unquestionably indicates that a study should be carried out in each case to establish this relationship which, as previously indicated, is one of the main factors that offsets the relative rigidity that the use of incentives imposes, or can impose, on the tax system. All the more so since the above discussion fails to provide any clear indication that incentives invariably operate efficiently, instead of sometimes representing a pure and simple loss of tax revenue.

²⁶ No analysis has been made of the various taxes on wealth and property, because these are generally taxes on a fixed assessment base, established for a period of at least several years. Moreover, in those cases where the base is readjusted periodically in line with increases in prices, the adjustment always involves a time lag. Thus it can be assumed that the real increases in revenue from such taxes are due solely to increases in wealth, and consequently the rate of the former cannot exceed the rate of the latter.

CENTRAL AMERICA: INDUSTRIAL POLICY PROBLEMS*

INTRODUCTORY NOTE

During the fifth extraordinary session of the Central American Economic Council, held at Guatemala City in August 1963, the Ministers for Economic Affairs, after discussing questions related to the industrialization policy that has been followed within the Common Market, decided to devote a meeting early in 1964 exclusively to consideration of the main problems facing economic integration in this sphere. The present text presents some background data and criteria on which such an analysis could be based.

It seems the right moment to examine the form and measure in which economic integration objectives are materializing in so far as industrial development is concerned, and the extent to which the Common Market is being provided with its own bases of production capacity that will make the most of the incentives and opportunities created by free trade, customs tariff equalization and the other instruments established for that purpose. Such a study would make it easier for Governments to formulate guiding principles as to the best way of consolidating what has already been achieved, overcoming difficulties and forging ahead to the attainment of new goals.

In this context, reference is first made to the chief legal and institutional instruments on which Central America's industrial policy rests, and the most important of the principles and objectives that shape this policy

* The text which follows (SIECA/CEC-111/Prov.30), prepared jointly by the secretariat of the Economic Commission for Latin America (ECLA) and the Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA), was presented at the sixth extraordinary session of the Central American Economic Council (San José, Costa Rica, 29 January to 1 February 1964).

are formulated, on the basis of the texts of the treaties that have been signed.

Secondly, consideration is given to the five countries' more pronounced industrial growth trends during the fifties and to the significance of the Central American Common Market for their future development. On this basis, general lines are laid down for industrialization within the regional economic unit, with emphasis on the need for specialization and modernization of the traditional industries and, primarily, for the promotion of basic industries manufacturing capital goods and intermediate products.

Attention is then drawn to the necessity of applying the existing instruments of Central America's industrial policy in new ways, through the organization of a promotional effort of completely regional scope. Initially, this effort should pursue the establishment of basic industries for the expansion of the Common Market on the manufacturing side, to which end a series of measures is suggested in connexion with the determination of these branches of industry, the presentation of projects by private enterprise, feasibility studies and the preparation of specific projects, while proposals are also put forward regarding the various activities that should be undertaken, on a co-ordinated basis, by ICAITI, the Central American Bank and SIECA.

Lastly, as a special case, the problems affecting the assembly industries are analysed, including the conditions that should be sought for their establishment and the different kinds of provisions it would be well to include in the additional protocol contemplated in the Central American Agreement on Tax Incentives to Industrial Development.

I. INDUSTRIAL POLICY IN CENTRAL AMERICA

The Central American countries have made an appreciable effort, under the economic integration programme, to promote the industrialization of their economies. At the same time, advantage has been taken of this effort to embark on the formulation of a policy of regional scope, embodying clear guiding principles as to the industrialization pattern it is sought to promote, and supported by a set of legal and institutional instruments for putting it into effect. The aim is to remedy shortcomings in national industrial policies, relating particularly to their lack of standardization, their want of clearly-defined objectives and the indiscriminate way in which they have been applied, as well as to the limitations of the instruments hitherto in existence—especially tariff protection and tax exemption—and the scantiness of the resources channelled into industrialization.

1. *Principal instruments*

The principal legal instruments of Central America's industrial policy thus far established by the Governments are the agreements providing for free trade, a common tariff in respect of imports from the rest of the world, a uniform régime of tax incentives, and the régime for integration industries (and the first Protocol thereto); the tariff provisions relating to milk products contained in a Protocol to the Central American Agreement on Equalization of Import Duties and Charges; and the special tariff system for the promotion of industrial activity. Free trade, tariff equalization and the integration industries régime are already in force, but not the uniform régime of tax incentives, the special tariff system and the first Protocol to the Agreement on the

Régime for Central American Integration Industries. Moreover, an additional protocol on the tax incentives and trade system that are to be applied to products of the assembly industries within the Central American Common Market is envisaged, and is awaiting negotiation, formulation and adoption.

The Central American Research Institute for Industry (ICAITI) and the Central American Bank for Economic Integration (BCIE) are likewise two basic institutions for the implementation of industrial policy in the area. The former has been in operation since 1955, and the latter since 1961.

2. Principles and objectives

Through this series of legal and institutional instruments the Central American Governments are pursuing the joint industrialization of their economies in the form of a single system of regional scope. They all furnish important incentives whereby the action of private enterprise can be usefully oriented towards manufacturing activities that need to be established, strengthened or expanded. The general instruments—providing for a free-trade area and a uniform import tariff—create a favourable climate for industrial progress in various directions. Those of a selective nature—the Agreement on the Régime for Central American Integration Industries and the BCIE—within the framework of the Common Market, provide powerful incentives for transforming the existing industrial structure through the establishment of industries with considerable capacity and advanced and complex technology, and by adapting the established lines of manufacture to the possibilities opened up by economic integration as regards larger-scale production, specialization, and modernization in respect of machinery and equipment.

(a) Structure of industry

Step by step, the existing Central American treaties have defined the structure of industry it is sought to establish in the area. As a general principle, the criteria followed in the formulation of a uniform tariff aim at encouraging domestic production, and at facilitating purchases abroad of the raw materials, intermediate products and capital goods that are needed for industry and cannot be produced in the area. The régime for Central American integration industries, for its part, is designed to promote the installation of branches of industry whose technical characteristics and minimum plant size are such that they require access to the Central American Common Market in order to become firmly established and operate on an economic footing. Under the Central American Agreement on Tax Incentives to Industrial Development, in turn, State action mainly favours industries producing capital goods and raw materials, and those utilizing a high proportion of labour, raw materials, semi-manufactured products and containers of Central American origin. Lastly, the fact that

BCIE's operations may be concerned only with integration projects or projects of direct regional interest decisively channels Central American financial resources precisely into the type of manufacturing activities mentioned above.

(b) *Balanced development*

The uniform import tariff and the Central American Agreement on Tax Incentives to Industrial Development also provide for equalization with a view to preventing productive activity from being located in certain countries in response to disparities stemming from artificial factors—for example, varying levels of tariff duties and different tax rates and benefits—rather than because of disparities in real costs. The régime for integration industries, for its part, is designed to ensure that the basic industries at least are always located in such economic conditions as will guarantee the viability and profitability of investments, which will be so distributed that each of the five countries takes a share. In addition, BCIE's action is calculated to help reduce the disparities now existing between them as regards the relative stage of development of their economic infrastructure. As far as industrialization itself is concerned, a similar purpose is served by the provision contained in the Central American agreement on tax incentives which empowers two countries to extend certain benefits over longer periods than the others.

(c) *Competitive conditions*

The purpose of the Central American Governments in forming the Common Market has been to lay the foundations for a broadly competitive economic system within the area that will establish conditions making for technical progress, increased productivity, improved quality, and lower costs and prices. On the other hand, in the case of industries which, owing to their technical and economic characteristics and the as yet relatively small size of the Common Market, are likely to install only one plant, or very few, such instruments as the industries régime and the customs tariff itself afford means of safeguarding the interests of the consumer. Thus it should always be possible to obtain satisfactory conditions as to price, quality and supply, even where the structure of production is not competitive. What is more, the Central American Economic Co-operation Committee, in resolution 115 (CCE), declared "practices, arrangements or agreements among commercial or industrial enterprises tending to restrict competition or limit trade among the Central American countries" members of the Common Market to be at variance with the aims of economic integration, and requested the ECLA secretariat and SIECA to undertake the necessary research and studies for the formulation of a draft protocol to the General Treaty defining the practices in question and establishing the penalties and measures applicable in such cases.

II. GENERAL FEATURES OF INDUSTRIALIZATION WITHIN THE COMMON MARKET

1. *Industrial development and economic integration in 1950-1960*

The economic integration measures adopted by the Central American Governments during the previous

decade, coupled with the favourable conditions under which the purchasing power of exports to the rest of the world developed in the early post-war years, helped to bring about an industrialization process presenting sat-

isfactory characteristics in several respects. In so far as the first factor is concerned, the market expansion achieved through the system of bilateral free-trade treaties and the raising of import tariffs at the national level led to a sustained rate of growth of industrial investment which consistently exceeded that of total investment, while at the same time the idle production capacity in this sector decreased.

Industrial production was thus able to expand at an appreciably higher rate than the economy as a whole, and trade in manufactured goods became the most dynamic element in a process of inter-Central American trade which, in the aggregate, likewise grew rapidly. These two factors kept the percentage share of the value of imports in the area's total consumption of industrial products at a fairly steady level, and probably also helped to stave off the even heavier pressures which demand for imports would otherwise have exerted on the balance of payments.

However, up to 1960 the stimulus deriving from the expansion of the available market through free-trade treaties had not yet been sufficient to promote a change of the manufacturing sector which, by its nature and scope, could lay the bases of an economic development process founded on industrialization.¹ Throughout the period in question the internal structure of industry registered no important changes, and continued to rest mainly on a few traditional activities—foods, beverages, tobacco, clothing, textiles, wood and furniture—which represented a virtually unvarying proportion (approximately 85 per cent) of the sector's total value added. Moreover, there was practically no increase in the industrial sector's share in Central America's total production, notwithstanding the growth recorded; nor was there any appreciable reduction in the percentage of total consumption of manufactured goods covered by imports. The explanation of this lies in the initial smallness of the manufacturing sector within the economy as a whole.

The absence of any over-all import substitution process is therefore clear, if this is taken to mean satisfying demand with increasing proportions of domestic production. Save in the textile industry—where the share of production in domestic supply rose from 30 to over 50 per cent—in almost all the other branches manufacturing final consumer goods the proportion of imports remained at practically the same level, increasing slightly in the case of durable consumer goods, intermediate products and capital goods.

2. *The Common Market as the base for transforming national industrialization patterns*

The existing structure of industry in the Central American countries owes its formation to the development of manufacturing activity within the context of domestic markets which are narrow on account of both low per capita income levels and numerically small populations. In this respect, the bilateral treaty system had the effect of considerably broadening the individual country markets, without, however, succeeding in giving them a different and completely regional dimension. Thus

¹ The cumulative growth rate of the per capita gross domestic product in the fifties was barely 0.6 per cent annually.

the main branches of activity in existence are in fact the only ones it has been possible to establish on the basis of such markets. Moreover, the degree of import substitution achieved is probably the most that can be expected within that pattern of industrial development. The narrowness of the markets often meant that the limited production possibilities were utilized in plants of less than economic size, besides giving rise to duplication of investment and the existence of idle capacity.

With the Common Market, however, the Central American Governments have given available demand that regional dimension which the very nature of the bilateral treaties precluded, and have thereby created the conditions necessary for beginning the transformation of five circumscribed structures of manufacturing industry into a unified industrial system within the framework of the Central American economy as a whole. These new conditions now make it possible to organize the traditional industries on more economic bases, and thus to eliminate the unfavourable characteristics resulting from their establishment at a mainly national level. Furthermore, they permit the development of a series of new productive activities whose installation had previously not been feasible for want, *inter alia*, of a sufficiently wide market.

Some of these changes have already begun to take shape. A new spirit of enterprise is evident within the Common Market, actively directed towards making the most of the trade opportunities and the favourable conditions for industrial investment which it offers. Thus, a start has already been made, or is about to be made, on such non-traditional lines of production as tires, metal structures, copper cable and wire, caustic soda and chlorine, insecticides and fertilizers, petroleum products and other raw materials for the chemicals industry.

Nevertheless, Central America's industrialization process is dependent not only upon the Common Market but also upon a network of measures, likewise of regional scope, which will have to be implemented on the supply side, inasmuch as exploitation of the industrial development possibilities that have been created calls for a good deal of co-ordination, technical assistance and financing which may or may not materialize spontaneously within the Common Market. The satisfaction of these requirements should therefore be sought by supplementary means, in order to ensure the early realization of the development aims pursued.

To these requisites must be added the demands made by economic development on industrialization, in view of the none-too-favourable outlook for traditional export activities. According to a number of studies, the immediate prospects for the expansion of these exports to the rest of the world are limited on the whole, whether intrinsically or in relation to development needs, since their rates of growth will probably fluctuate between 2 and 4 per cent annually. On this basis, provisional estimates indicate that even the attainment of the comparatively modest annual growth rate of 2.5 per cent in the per capita gross product—as laid down in the Charter of Punta del Este—would entail the expansion of the industrial sector at a rapid and sustained rate, and the share of domestic production in internal supply would have to be substantially increased, by

means of a net industrial investment of some \$1 000 million over a period of ten years.²

3. *Development of industries manufacturing consumer goods*

The production of manufactured consumer goods will have to play a major part in the development of the Central American Common Market. The provisional estimates based on the above-mentioned calculations indicate that of the increase of nearly \$980 million that industrial output would have to achieve between 1960 and 1970, approximately two thirds of \$658 million would correspond to this type of product. The attainment of such large increments would necessitate, *inter alia*, taking the maximum advantage of the opportunities afforded by the recently established regional market base. In the case of traditional industries, this would involve plant specialization, modernization of machinery and equipment, and expansion of plant capacity to more economic dimensions. Productivity could thus be improved, and consumers could be guaranteed prices more in line with their income levels. At the same time, available capacity could be more efficiently utilized, and the import substitution process could be intensified.

Such tasks pose problems of an eminently regional nature, whose solution calls for the co-operation both of member Governments and of producers already established in the different countries. Plant specialization in any given country, for example, will clearly depend on the decisions adopted in that field by enterprises situated in the rest of the Common Market area. Furthermore, investment in additional production capacity within the industries in question should also be determined from the standpoint of the area as a whole, in the light of requirements that could not be met through specialization and modernization programmes. Thus, the future growth of these activities, instead of resulting in wastage of the substantial investment already placed in them, would have to be founded on the transformation, modernization and expansion of the available production base.

Demand for consumer goods could not be satisfied on the basis of the existing industrial structure, owing to its under-diversification and its concentration in a limited number of light industries. Moreover, the satisfaction of such demand will necessitate giving continued impetus to direct import substitution in respect of all those additional items where it may prove feasible because of the size of the market and because prevailing conditions justify it from the standpoint of supply. It should be stressed that the limitations noted so far in the industrialization process are related to the lack of dynamism of its principal components, imputable not only to the fact that they are directed towards satisfying

²This means, on an average, net annual investment in the manufacturing sector—which in 1960 reached the figure of \$45 million—will have to be doubled, or in other words, that its annual amount will have to be increased until a sum in the neighbourhood of \$140 million is reached by the end of the ten years. The foregoing estimates are based on projections of industrial demand derived, branch by branch, from the over-all growth target and from the relevant income-elasticity coefficients of demand. On the basis of these projections, and of the import capacity envisaged, the increment required in domestic production was calculated residually. The amount of net investment was then estimated with the aid of coefficients applicable to the product-capital ratio, by branches of industry.

the needs of the lower income sectors, but also to the circumstance that, having succeeded in covering large proportions of domestic supply in certain cases, they find few additional incentives to expansion in import substitution.

Production of consumer goods not currently manufactured in Central America would help to modify the trends towards balance-of-payments disequilibrium deriving from the conditions under which traditional exports must continue to develop, and from the growing import requirements generated by the economic development process itself. The same would be true of specialization and the introduction of new techniques in traditional industries, since such a process would enable Central America's production to meet a higher proportion of its needs.

4. *Need to diversify Central America's industrial base*

Were industrialization to continue to concentrate on the production of consumer goods, unilaterally maintaining the traditional pattern, its development possibilities would be somewhat restricted. Except where demand increases as a result of cost and price reductions due to the modernization of established industries, unless radical changes are effected in the distribution of wealth and income such branches of activity will expand comparatively slowly in relation to population growth and the income generated by agricultural exports.

Moreover, the basic conditions of industrialization in the confines of the individual country markets have given rise to an incomplete import substitution process, which is unquestionably inadequate in its response to regional demand, and within which there has been considerable need for external purchases of raw materials, intermediate products and capital goods. This partly explains the sector's inability to provide the necessary impetus for an integrated economic development process. Even when traditional exports were developing along favourable lines, the income increments that derived, for instance, from higher prices or bigger sales abroad resulted in proportionally larger increases in imports than in purchases of goods produced in Central America, both to meet the demand for consumer goods not produced locally and to satisfy the input requirements of established industries. If this situation were to remain unchanged in Central America, the limitations of the capacity to import—which, as noted above, are bound to continue in evidence—might well obstruct even the growth possibilities of consumer goods industries.

Obviously, therefore, in order to attain the rate of industrialization required, investment would have to be channelled towards the establishment of activities distinct from those producing consumer goods, and, in so far as the latter are concerned, towards the creation of supply conditions in respect of the requisite production factors different from those hitherto characterizing their development. These two questions are closely related, since such new branches of industry are none other than those manufacturing capital goods and intermediate products—for example, caustic soda, sulphuric acid, pulp and paper, rayon fibre, insecticides, fertilizers, tires, cement, rubber, steel, glass, petroleum products and plastics—and the element of difference in the new growth pattern of industries manufacturing consumer goods would in fact be the use of inputs of Central American

origin, in addition to the processes of specialization and improvement of techniques referred to earlier.

Production of capital and intermediate goods in Central America will provide a source of such inputs, enable better advantage to be taken of the incentives to domestic production deriving from increased demand, and facilitate the expansion of import substitution, which thus far has been limited to final consumer goods and will now also include the products used in their manufacture. No less important are the growth prospects opening up for these industries in terms of the use of their products in such other sectors of the economy as agriculture, the building industry and public works. The studies carried out to date suggest that these possibilities may be even more significant for Central America in the ensuing stages of its development.

All these factors—specialization and modernization of traditional industries, the establishment of new industries manufacturing consumer goods and the impetus to production of capital and intermediate goods—would make substantial contributions to the gradual linking-up of the existing domestic manufacturing sectors in a system of regional scope and would provide the production base needed for the continued growth of inter-Central American trade. As regards this second point, it is clear that once the additional demand for consumer goods created by free trade and tariff equalization is exhausted, any rapid expansion of trade would have to be accompanied by diversification of its present composition.

5. *Development of basic industries*

It is the activities producing capital and intermediate goods that are referred to here as basic industries: basic in the sense that they create material conditions conducive to the development of the manufacturing sector and that, properly founded upon utilization of the area's own natural resources, they free economic activity in other fields, such as those mentioned above, from the handicaps that might stem from a limited capacity to import the industrial inputs required.

The basic nature of these industries derives from relations of interdependence that link them with one another and with other branches of industry and sectors of production. Their products are utilized in a series of allied and collateral activities, from which they themselves obtain a considerable proportion of the factors of production they need. Thus, the growth of any one component will have favourable repercussions on the rest, through an increase in demand for their products or lower prices and better supply conditions in respect of their input requirements. Instead of petering out in a single phase, the industrialization that might be achieved as the result of an expansion of demand—whether this were due to increased export earnings or, as in Central America, to the establishment of the Common Market—would become a much longer process, and would branch out into new phases and other productive activities.

Just as important as these industries' entry into production is their establishment in satisfactory conditions as to size, location, techniques and the composition of output itself. In practice, these conditions are determinants of the pattern to be followed by the industrial sector's subsequent growth. For example, the adoption of relatively out-of-date processes or the selection of unduly small plant sizes in the basic branches of industry

might result in low levels of efficiency and in increases in costs that would tend to hinder the establishment of collateral activities, to reduce the expansion possibilities of those already in existence and to weaken the competitive position vis-à-vis other countries.

Accordingly, it is necessary to select groups of industries in which the installation of a factory will create conditions favouring the emergence of others, which in turn will tend to strengthen the position of those preceding them, thus forming a nucleus of vigorous growth. The separate evaluation of an individual technique or production process may, therefore, lead to mistaken conclusions, if account is not taken of the whole combination of advantages deriving from a series of complementary activities. Industrial complexes provide a clear illustration of this point. Thus, for example, while the decision to install a refinery of a given capacity, based on certain technical processes, may seem unimportant if considered unilaterally, the outlook might change radically if the project were analysed as a possible focal point for the growth of a range of allied activities geared to the Common Market.

Industrialized areas whose structure of production has reached a high level of diversification and complementarity are in a good position to facilitate the investment process by virtue of the fact that the new plants or projects established can benefit forthwith from the favourable conditions created by earlier investment. The situation is different in the developing countries, where a predominant feature is the weakness of the links between different sectors and branches of activity. Hence it is that the promotion of complementary enterprises and activities is of major importance, often an essential requisite for the placing of investment. This is particularly valid for the Central American industrial sector, since the characteristics of the individual country markets have precluded the establishment of a number of basic industries and, in general, the forging of solid interconnections between the various branches of the sector.

6. *Relation between Central America's industrial and trade policies*

The expansion of the manufacturing sector during the next ten years will derive its main impetus from import substitution within the Central American Common Market. Nevertheless, if the regional economy is to attain a growth rate capable of raising the population's level of living and absorbing the manpower surplus in primary activities or in unproductive services, industrialization policy cannot be based solely on the possibilities afforded by the Common Market. The reason is that the Central American market is not broad enough to support certain basic industries for the development of which the area offers plenty of natural resources, such as forest and fish resources and certain mineral deposits. Even in the case of industries producing consumer goods, Central America's demand will tend to set limits to the degree of specialization necessary for the achievement of substantial increases in productivity.

If to these considerations is added the need to strengthen the external sector of the Central American economies, it becomes obvious that industrialization policy will have to be grounded in future on an active trade policy aimed at promoting exports of manufactured

goods to other countries or groups of countries. In this respect, Central America's policy would not be confined to the conclusion of trade agreements for the opening-up of additional export markets. An equally important step would be the establishment of agreements with third countries or groups of countries on capital investment and the transmission of techniques that would contribute to the industrial sector's growth.

An attempt would thus be made to expand the structure of industry on a selective basis so that, through exploitation of the advantages offered by modern technology and efficient use of the area's natural resources, at least a certain group of industries could be assured of a competitive position in external markets. Concurrently, a pattern of foreign trade specialization would

gradually be established which was less dependent on exports of primary commodities and increasingly oriented towards manufactures in which satisfactory levels of productivity could be attained. An industrialization policy of this nature would not be directed towards import substitution merely for the sake of achieving a maximum of self-sufficiency. On the contrary, it would be necessary to induce a structural reform in domestic production and in foreign trade that would open up new or better growth prospects. Neither would it be solely a matter of increasing external income by expanding exports of manufactured items. An equally or even more important aim of the policy described would be to encourage the development of further investment projects and the establishment of other productive activities.

III. NEED FOR INDUSTRIAL PROMOTION ACTIVITIES IN CENTRAL AMERICA

There are certain important requirements for the establishment, under suitable conditions, of basic industries in Central America, and, in general, for the transformation of the pattern of industrialization in the countries of the area. To meet them, it is essential first to implement thoroughly all the basic treaties establishing the Common Market. This implies expediting the complete liberalization of trade and the full application of the uniform import tariffs; giving effect, as soon as possible, to treaties—such as that on tax incentives and the first protocol to the Agreement on the Régime for Integration Industries—which have not yet been put into practice; and drawing up and signing those that are still lacking, such as the protocol on assembly industries.

It is equally clear that another indispensable requisite is to improve the procedures for applying the treaties and other instruments that have been adopted and established. The passive nature of the existing agreements, by reason of which the possibility of their incentives' materializing is dependent on moves that may or may not be undertaken or carried through, and the absence of any regional measures for applying the instruments in question in the interests of an entirely Central American industrial development programme, might in practice detract from their efficacy. This would mean that investment efforts would tend to be concentrated at the national level, and no advantage would be taken of the potential force and dynamism of a combined effort by all the countries.

A distinction must be drawn between general integration instruments and those covering specific fields and objectives. Application of the general instruments—those providing for free trade and the uniform import tariff—is automatic and coercive. Their function is to create a suitable climate for regional development, and they establish conditions—also of a general nature—calculated to foster the expansion of productive activities. From this point of view, their application has had significant repercussions which, even during the brief period they have been in force, have been reflected in relatively satisfactory increments in industrial production and, above all, in inter-Central American trade in manufactured goods.

However, it is likewise clear that these instruments fail to provide sufficient inducement for industrial investment to be made on the necessary scale or in the fields that need to be covered. Obviously, the attainment of this objective will depend on many other factors as well, i.e., financing, availability of technical resources, organization and knowledge of the market, etc.

In its turn, the use of the specific instruments is in every case subject to submission of the relevant application. As regards both the integration industries régime and the agreement on tax incentives, for example, the granting of benefits and the very possibility of their influencing the actual economic situation are dependent upon the action that industrial enterprise takes to that end. Similarly, ICAITI's activities and the BCIE credit programmes are at present determined by the level and nature of the signs of demand for their resources exhibited by Central America's still incipient industrial groups.

The foregoing considerations suggest that the area's industrial policy might not be sufficiently efficacious if, relying solely on its existing legal and institutional instruments, it continued to depend on their passive application. They also show that to eliminate this risk does not necessarily entail the conclusion of additional treaties, or the setting-up of new institutions.

The solution must be sought elsewhere, and specially—given the body of instruments existing at present—in such methods of applying them as will ensure effective fulfilment of their aims. It would consist in making them really operative by means of a deliberate effort to channel a sufficient volume of Central American savings and capital funds from abroad into industrial investment, and in due course to establish productive activities that would bring about a sweeping change in Central America's industrialization pattern.

In actual fact, this idea has been under consideration virtually since the inception of the integration programme, and has lain behind some of the measures taken by Governments in this field. The question would now be to develop it completely and, above all, to convert it into an integrated effort in terms of specific objectives.

Therefore, the first step would be to decide which industries should be established within specific periods of time and with specific priorities and to organize concerted efforts for their promotion, enlisting the co-operation of the private industrialists in whose hands they would be, and, where appropriate, establishing suitable links with industrialists and investors outside the area; collaborating in the setting-up of the enterprises in question; ensuring the preparation of projects under satisfactory technical conditions; raising and allocating the financial resources needed, both credit and capital (including working capital); in due course forming teams of trained and specialized personnel; and supplementing all these measures by the prompt granting of all benefits existing under the law, both at the national and at the regional level.

There is a close relationship between executive promotional measures and this mode of procedure as regards the implementation of treaties and the operation of institutions, which should find expression in a united effort to further and accomplish regional industrialization. Once the necessary treaties and mechanisms are established, their existence obviously acquires its full significance—their possibilities gaining in depth and scope—only in relation to the promotional measures taken to give effect to their constitutive clauses and statutes.

This type of effort involves important requirements which would have to be formulated and met under national industrial development programmes, whereby greater efficacy would be lent to the activities now being carried out at that level. But this would not be enough to give the necessary impetus to industrialization, or to bring the structure of industry into line with economic development needs. The development of basic industries and the introduction of specialization and up-to-date methods in the traditional branches at least would call for the pooling and organization of all the resources at the disposal of the five countries in the performance of a joint task.

In the Central American countries, the small size of their commodity markets is not the only obstacle to development on a national base. Their capital and entrepreneurial resources are also limited. Logically, therefore, an organic relationship exists between domestic market possibilities, on the one hand, and the capacity—also domestic—to exploit them, on the other. With the conversion of the five individual country markets into a single regional market, and the ensuing multiplication and improvement of investment opportunities, the capacity in question must also expand so that they can be turned to account.

With a view to the establishment of a new relationship consistent with the possibilities offered by the Common Market, the technical, legal, institutional and financial resources must also be pooled to provide it with the appropriate production base, the first step being to channel the scanty national resources into a single regional flow.

This requirement relates both to specialization in the existing traditional industries and to the establishment of the new branches of activity that will provide the basis for future industrialization, but it is particularly marked in connexion with the latter. Consideration will show that a groundwork of knowledge on production, processes and possibilities in the traditional industries already exists in Central America, and will in some degree facilitate regional efforts to expand the installed capacity of the larger plants, and to specialize production, replace out-moded equipment and introduce the most up-to-date techniques. The picture is very different, however, as regards the basic branches of activity, since in their case it is a matter of establishing in Central America unfamiliar forms of industrialization, which involve complex technology and make heavy demands in respect of specialized and skilled personnel; whose investment requirements are far greater than entrepreneurs in these countries are accustomed to meeting; and which pose new marketing and market problems.

It must not be forgotten that the multilateral economic co-operation movement in Central America, as distinct from others elsewhere, does not pursue trade aims alone. Another objective—which is in fact an essential requisite for ensuring the viability of a process of sustained growth in the member countries—is to turn five economies that are precariously founded on national bases into a system of production with broader possibilities. As regards industrialization, the Common Market may lead to some measure of development and improvement of the existing manufacturing sectors. But the result is hardly likely to be full exploitation of their most important opportunities, owing partly to the dispersion of the efforts made, and partly to their probable tendency to cancel one another out. In this sense, a development process organized on the basis of keen competition between countries conflicts with the essential aim pursued: the economic unification of Central America.

The reorganization of industrial promotion in the two fields indicated above would make it possible to judge the different projects on their own merits and from a Central American standpoint, that is, viewed not by one of the parties only but by all five member countries. Thus, superimposed on the idea of each individual country's taking advantage of the opportunities offered by economic integration in the national interest and by means of national efforts, would be the other idea of turning them to account in the interests of the whole area, on the basis of broader and more vigorous promotional activities of regional scope. This would be conducive to a greater community of interests, and narrow aspirations for industries to be established in certain countries would then be over-ridden by a unanimous desire to locate them in the most appropriate places and under the requisite conditions, since on this will ultimately depend, in large measure, the nature and pace of future economic development.

IV. PRINCIPAL FACTORS FOR THE PROMOTION OF BASIC INDUSTRIES

1. *Nature and scope of industrial promotion in Central America*

The industrial promotion activities envisaged in section III are conceived as a joint effort on the part of the agencies concerned with integration, in which the Common Market instruments are brought into play with a view to encouraging private investment and channelling it into those economic activities that are most vital to Central America's development. If this work is to be effective, clearly the promotional machinery adopted should not be restrictive, with rigid procedures tending to hinder or impede action by investors. On the contrary, what is required is to pave the way for private enterprise, pointing out investment possibilities, providing the financial and technical support needed for the execution of its projects, promoting external financing, etc.

The impetus to industrial development at a completely Central American level would have to be confined to the establishment and development of basic industries on a regional scale, and to the specialization and modernization of the main traditional industries. In the broad field represented by import substitution in respect of consumer goods and by the expansion of production of such items in terms of industries of sub-regional size and of those exporting to the rest of Central America but based primarily on a national market, the promotion effort would continue to be incumbent on each individual country.

On the other hand, as the national industrial development plans that are being drawn up on a co-ordinated basis in the five countries, with the advisory assistance of the Joint Central American Programming Mission, are gradually completed, it will be possible for the regional aspects of industrialization to be formulated more precisely and to be incorporated in Central America's promotional effort, for which they will provide guidelines.

It would fall to the industrial development banks and institutions of the individual countries to perform a key role in this regional promotion effort, besides the important part they have been playing, and must continue to play, in this connexion at the national level.

The following pages deal with the measures that could be taken in relation to basic industries. The question of specialization and improvement of techniques in the traditional industries could be considered later, in the light of the relevant studies being carried out by SIECA, the ECLA secretariat and the Joint Mission.

2. *Schedule of promotional measures*

(a) *Definition of basic industries*

A first step in the task of industrial promotion would be to decide which branches of activity are destined to play a strategic part in the ensuing phase of Central America's industrialization process and would be given the strongest support by existing regional bodies, in order to ensure their establishment during the coming decade.

The studies on which the ECLA secretariat has been engaged since 1955, with the help of United Nations technical assistance experts, have made it clear that such

branches of activity would correspond mainly to the chemical and metal-transforming industries; they would produce raw materials, intermediate products and containers for other manufacturing industries, agriculture and the building industry, and lay the foundations for the first Central American industrial complexes. Industries producing mainly for export would also be included, as well as some of the assembly industries which—as will be seen in section V—would in certain cases constitute a preliminary phase in the establishment of basic industries on a regional scale.

Such studies would make it possible to draw up a list of basic industries together with the relevant data and criteria, supplementing the studies already carried out by the ECLA secretariat with those that the Joint Central American Programming Mission is preparing, and others made in the different member countries. In view of the data and information already available, this task could be completed within the space of a few months, and still cover the principal branches of industry to be established, say, over the next ten years.³ Upon completion, the project in question would be subject to examination and revision by the Executive Council of the General Treaty, and would then be submitted for consideration and final approval, where appropriate, by the Central American Economic Council.

The Economic Council's approval of the list of basic industries would commit the Governments to the continued adoption of a joint approach to any projects presented and of joint decisions in connexion therewith, and likewise to giving calculated impetus and top priority to the establishment of such branches of industry on the lines best suited to Central America.

This does not mean that only projects for industries included in the list would be the object of promotion. Undertakings which, in the light of exactly the same criteria, are of equal importance to the region obviously merit the same treatment. The list would therefore serve as a frame of reference for co-ordination of industrial development policy at the Central American level.

(b) *Presentation of projects by private enterprise*

Once the list had been approved, it would be circulated as widely as possible for the purpose of guiding interested parties in the preparation of projects. At the same time, an active and vigorous promotional campaign would be launched in the sphere of private enterprise. Initial dead-lines could also be set for the presentation of projects, with due regard both to the characteristics of each industry, and to the progress achieved in feasibility studies for given branches of industry.

Projects would be submitted directly at the Central American level and would be dealt with jointly by the Governments through the economic integration institutions. Similarly, any applications presented to national authorities would be transmitted by them to the regional agencies, so that decisions were always adopted in relation to the Common Market as a whole. This would tend to eliminate the current practice of many investment

³ The ECLA secretariat, for its part, in compliance with resolution 121 (CCE), will embark in 1964 on a new programme of research on Central America's industrial sector.

promoters of travelling through the five countries, often with the aim of selecting the most suitable site, not from the point of view of regional development, but from the angle of where the maximum profits might be obtainable.

It is vitally important that no time should be lost in making an evaluation in depth of the projects presented, and in furnishing them, where appropriate, with every available means of support to ensure their prompt execution. To that end, once the stipulated periods had elapsed and the relevant studies had been completed, the Economic Council, aided by the Executive Council and other integration agencies, would select those best adapted to conditions and requirements in the region, and, also within pre-determined time limits, would in due course adopt the pertinent decisions, indicating the economic integration benefits and instruments applying in each case. In so far as the rest of the projects are concerned, it should be made clear that their non-selection did not imply that their establishment would be prohibited, but merely that they would not be promoted by the Central American Governments.

(c) *Studies by branches of industry*

The adoption of a list of basic industries by the Economic Council would further establish an order of priority for the allocation of resources and for all other measures taken by the Central American integration agencies to promote manufacturing industry. It might sometimes happen that the projects submitted were limited at first as to number and stage of preparation. In that case it would be suggested that the said agencies should encourage their completion and, where appropriate, the preparation of any additional projects needed. For that purpose, the agencies in question would need to possess basic information on the existing industrial structure in Central America, on the lines along which its development should be channelled in the future in terms of the present and potential size of the market, and on supply conditions in respect of the region's natural, technical and human resources. This would entail embarking on a series of studies, by branches of industrial activity, in order to acquire the necessary criteria for estimating the number and capacity of the plants it would be expedient to establish during specific periods, and in relation to similarly specific market dimensions. A fund of detailed information would also be built up with respect to raw materials, containers, semi-manufactured products and capital goods of Central American origin which could be utilized as being readily available, or whose production might well be undertaken as a result of the installation of these industries. Furthermore, conclusions would be drawn as to the necessary criteria for selecting techniques and estimating investment needs, cost and price conditions, and predictable effects on the balance of payments.

(d) *Studies on the feasibility, preparation, financing and execution of projects*

Research by branches of industry would supply data for the proper evaluation of the projects submitted.⁴ In

⁴ None the less, there is clearly no reason to delay the promotion of certain industries that are obviously viable and of direct and urgent importance to Central America, until such time as the findings of this research are available.

addition, however, it would serve as a basis for the furtherance of the promotional effort, primarily through the preparation of comprehensive feasibility studies and the formation of groups of interested investors, and, later, through the formulation of plant design and engineering projects, the constitution and financing of enterprises, the construction of plant and the initiation of the production and distribution activities concerned. Once the analyses by branch of industry and the feasibility studies were available, it would be essential for national development banks and institutes to take an active part in this whole process, side by side with the regional integration agencies.

In this way, the promotion of basic industries would be established in the form of a complete process, beginning with the assessment of investment possibilities and continuing uninterruptedly until it culminated in the execution of the projects.

3. *Institutional machinery and technical and financial resources required*

In order to put into practice in its entirety this effort to promote basic industries in Central America, the Governments would have to focus their action on three main points. It would be necessary in the first place to co-ordinate the activities of the regional development and integration institutions; secondly, to form a nucleus of high-calibre technical experts, duly supplemented and reinforced by technical assistance services from abroad; and, lastly, to have sufficient funds to cover the costs incurred in the work of preparation and evaluation of projects, and to back their execution with contributions from the Central American countries themselves. In relation to these three focal points, the activities of private enterprise, both regional and foreign, would have to be encouraged, as well as those of national industrial development bodies, while at the same time advantage would be taken of the experience of other countries, through close co-operation with technical and financing institutions similar to those already existing in the area.

(a) *Institutional machinery*

One favourable factor is that the necessary elements for establishing an institutional base such as that required already exist in Central America, in the form of the various economic integration agencies which the Governments have set up over the past few years. ICAITI, BCIE and SIECA, guided either directly by the Economic Council, or, respectively, through the Board of Directors of the Institute, the Board of Governors of the Bank and the Executive Council of the General Treaty, would be called upon to play a decisive part in all the tasks referred to, the first two within their particular spheres of activity, and SIECA by virtue of its functions in respect of the administration and application of the treaties and agreements in force.

In this connexion, it would be expedient to set up a committee composed of the Director of ICAITI, the President of BCIE and the Secretary-General of SIECA, which, operating both directly and through technical working groups, would establish proper co-ordination among the three bodies, as well as between them and national industrial development institutes, at the operational level of their respective programmes of work, and

would lay the foundations for effective implementation of the promotion programme. Its immediate tasks would also include studies designed to indicate the basic industries that should be promoted, whence it would proceed to the evaluation of projects, the orientation of studies on individual branches of activity, and the other measures that make up the whole complex of the technical, economic, legal and financial aspects of industrial promotion.

In ICAITI's case, the formulation of specific objectives as regards the types of industries it is intended to establish and the priority to be assigned to them would clearly demarcate its immediate specialized personnel requirements in its capacity as an advisory agency concerned, in addition, with the evaluation of projects,⁵ and would also determine the magnitude and nature of the technological and industrial research services that should be sought abroad. Similarly, it would serve to define the content of the Institute's natural resources research programme, which would be parallel or complementary to the longer-term studies included in the cadastral project sponsored by BCIE. ICAITI could likewise determine the needs of the basic industries to be established, in so far as specialized technical and administrative personnel and skilled labour were concerned, and on that basis could formulate and duly implement the necessary training programmes.

BCIE, for its part, could then quantify the financial resources needed during specific periods for the establishment of basic industries, and analyse and estimate the possibilities of internal financing. It could also make recommendations for the channelling of Central American savings into such industries on the necessary scale; examine the sources of external financing and draft the most appropriate procedures for obtaining the amount required; and, in general, decide what part the institution itself would have to play in the whole process.

In this respect, BCIE could serve to cement Central American capital, by helping to organize groups of local investors,⁶ encouraging their participation in terms of specific targets for each industry, contributing out of its own resources to the capital formation of certain enterprises and granting them credit facilities, acting as an intermediary in the sale of bonds and other securities, and devising the financial organization and other features of the enterprises that would have to be set up. BCIE could further serve as a catalyst in the process of obtaining the necessary foreign capital, arranging credit from different sources, attracting non-Central American investors and promoting their association with local groups.

(b) *Technical personnel requirements*

The formation of a regional nucleus of technical personnel and of appropriate supplementary services is perhaps the fundamental requirement to be fulfilled in

⁵ Moreover, this is one of the most important functions that ICAITI will have to fulfil in the future, in order not only to facilitate the dissemination of present-day technology in Central America, but also to discharge in full the duties laid upon it in this field under various economic integration treaties.

⁶ This is one of the major requisites that would have to be met in any attempt to secure the participation of local capital in new industries on a regional scale. Experience shows that, in view of the magnitude of the investments required, such participation can be brought about only through the fusion of national interests in stronger groups at the regional level.

any effort to promote industry. ICAITI has made some headway during the past few years in training technological and industrial research workers. BCIE, during the brief period it has been in existence, has already succeeded in forming its first teams of specialists, and the national development institutes in some countries have made satisfactory progress in the same direction. The question would be to establish, on the basis of these achievements, on the one hand, a minimum groundwork of technical assistance resources in the Central American agencies themselves, and, on the other, to procure what was lacking—which would be a major proportion—from external sources.

This task would be facilitated in the case of ICAITI if the recommendation formulated by the recent United Nations survey mission to the effect that Special Fund technical and financial assistance be extended for a further five years as from 1965 were approved. As regards BCIE, it would be worth while considering the immediate setting-up of an industrial promotion department as a specialized instrument to help the Bank to fulfil the function assigned to it in this field under the agreement establishing it. This department would be endowed with financial resources, both of the Bank's own and of foreign origin, distinct from and supplementary to the funds already available for BCIE's existing credit programme. In line with the concept of a rational division of labour, the best course would be to staff this department with specialists in finance, credit, organization and promotion of enterprises, assigning to ICAITI experts on the technical aspects of industry as such. Working groups from both agencies and from SIECA could then pool their efforts and take joint action in relation to specific projects of their own or emanating from other sources.

While the teams of technical experts of the economic integration agencies would necessarily be larger than at present, they would still be small, both intrinsically and in relation to actual needs, owing to financial and other limitations. As stated above, they would constitute a minimum nucleus, whose activities, except in a few cases, would be concerned in general with the evaluation of investment projects and not with the carrying out of detailed studies by branches of industrial activity,⁷ or with the preparation of projects. Obviously, this last task would require additional human resources which the agencies in question would not have at their disposal, because of the number of experts and wide range of specialities needed. It is precisely these services that would have to be secured from abroad, through the negotiation of contracts with well-reputed firms of consultants, the establishment of working relations with other technological and industrial research institutes, and the conclusion of co-operation agreements with development institutions and international and foreign financing agencies. In the case of development institutions in the Latin American countries, this type of agreement might have the advantage of facilitating the expansion of the regional market base, and might possibly lead to the creation of favourable conditions for

⁷ The relevant studies being carried out under the auspices of the Joint Central American Programming Mission should supply comprehensive data on various basic branches of industrial activity.

the establishment of Central American industries producing manufactured goods for export to some of the countries concerned.

(c) *Legal instruments*

The agreements already adopted by the Governments of the area in the context of economic integration, in particular those relating to a uniform import tariff, tax incentives, the integration industries régime and the special tariff system, are the legal instruments that would be used in promoting the development of basic industries in Central America. The question of which particular instrument or combination of instruments should be applied would be for the Economic Council to decide,

V. A SPECIAL CASE: ASSEMBLY ACTIVITIES

Viewed as the initial phase in a gradual process of transformation into manufacturing industries, activities concerned with the assembly of certain industrial products are of importance for the economic development of Central America. In so far as they became an integral part of the structure of production for the common market, they might provide incentives for the installation and development of other industries, facilitate significant technological progress in the countries of the area, and make an appreciable contribution to import substitution and to the industrialization of the Central American economic unit in general. Considered from this standpoint, some of the activities in question might be classified in the group of industries considered to be of basic importance for the growth of manufacturing activities in the area, appearing as a special case within that category. Central American policy in respect of assembly industries would not then be conceived solely in terms of the creation of conditions which would permit their establishment. It would also take the shape—just as in the case of basic industries—of an effort of regional scope, aiming at their installation in accordance with the needs of Central American economic integration.

In the seventh transitional article of the Central American Agreement on Tax Incentives to Industrial Development, the five contracting parties undertook to sign an additional protocol specifying (a) the system of incentives to be applied to assembly activities; (b) the trade régime to which the various assembled articles should be subject within the Central American Common Market; (c) the requirements and obligations to which assembly enterprises should be subject as regards the production or use of parts of regional origin; and (d) the producer activities to which the régime might apply. Until the protocol comes into force, assembly activities to which the above-mentioned transitional article is applicable will enjoy privileges and immunities for three years in respect of imports of machinery and equipment.

Assembly activities constitute a starting-point for the pursuit of specific objectives of Central American industrial policy, whose attainment will in practice depend upon whether the activities in question are established in such a way that they can be gradually absorbed into the production base of the common market, and upon the conditions laid down for their incorporation from the outset.

in each individual case, during the initial phase of the promotion campaign.

It should be stressed that, as far as the integration industries régime and special tariff system are concerned, the specification of the basic industries to be established within the Common Market would afford a good opportunity for Governments to demarcate once and for all their sphere of application, which should be confined exclusively to these branches of activity, though not necessarily covering each and all of them, as has been suggested. It would thus be made clear that neither the industries régime nor the special tariff system would apply to all other manufacturing activities, which would be subject only to the general integration agreements.

The background material presented below may facilitate the formulation of the additional protocol within the broad outlines stipulated in the seventh transitional article. It has been prepared on the assumption that the structure of the protocol will be similar to that of the Agreement, and that there will be a basic relationship between the provisions of the two texts. In that sense, the protocol would seem to be essentially a supplementary instrument.

1. *Field of application*

The protocol would relate solely to such assembly activities connected with the metal-transforming industries, and with any other branches of industry comprising similar assembly operations, as might be established in Central America with a view to their gradual transformation into manufacturing activities. Accordingly, a distinction would have to be drawn between these enterprises and assembly operations pure and simple on the one hand, and, on the other, manufacturing proper. It would also be necessary to stipulate that the relevant regulations should in each case include quantitative criteria for making this differentiation. Strictly speaking, these criteria would relate to what minimum proportions of the total manufactured inputs used by the plants concerned were represented by inputs they themselves manufactured. But in the present case, they would obviously refer to minimum proportions of inputs produced in Central America.

The establishment of quantitative criteria would facilitate the administration of the protocol and would avert difficulties that might otherwise derive from the application of its provisions in the case of those same industries, either to assembly activities pure and simple, which are of much less importance to the area, or to manufacturing industries, which merit more support. It would thus be made clear that assembly operations pure and simple, and manufacturing proper, were both outside the scope of the protocol.

2. *Scheduling of enterprises*

In the light of criteria established in defining the field of application of the protocol, it would seem that the conditions laid down in article 4 of the Agreement on Tax Incentives would be equally applicable to assembly activities. These conditions are as follows: (i) use of

modern and efficient technical processes, compatible, in this case, with high employment levels; (ii) production of articles required for the development of other productive activities, or to meet the basic needs of the population; (iii) generation of a value added by the industrial process that is substantial in absolute or percentage terms; and (iv) furtherance of increased use of national or regional raw materials or semi-manufactured products and, in general, of Central America's natural, human or capital resources.

As specific criteria for the scheduling of assembly enterprises, the protocol should stress the technological enrichment of the Central American economy, the prospects for rapid conversion into manufacturing industry and the stimulus given to the development of other productive activities.

3. *Classification of enterprises*

Since not all assembly activities are of equal significance for the economic growth of Central America, it would be necessary to differentiate between them with a view to graduation of the benefits obtainable, so as to give sufficient encouragement to those whose importance was greatest. Consideration should be given to the establishment of two categories, on the basis of the nature and use of the goods assembled: the first would comprise capital goods and intermediate products, and the second, durable consumer goods.

This classification would be consistent with two criteria that are important for Central America: (i) the relation of the assembly industry to the development of other productive activities; and (ii) the importance of the products assembled from the standpoint of the defence of the balance of payments.

In the latter connexion, it should be borne in mind that the Central American countries' requirements in respect of capital goods and intermediate products are likely to continue to expand at a rapid rate. In these circumstances, it would be feasible, provided that the resultant cost and price levels did not exceed given limits, to start the encouragement of domestic production by beginning with assembly operations, since imports, either of parts or of finished articles, would still have to be effected in any event.

The situation is different as regards durable consumer goods, inasmuch as the industries concerned, by definition, do not produce articles on whose existence the efficient operation of other branches of activity depends. Similarly, their products are typically for consumption by the high-income groups, and imports might be restricted in case of need without the infliction of undue hardship on the bulk of the population.

4. *Integration of assembly industries*

Under the provisions of the above-mentioned transitional article, the assembly enterprises covered by the protocol will be subject to requirements and obligations as regards the production or use of parts of regional origin, which would have to be specified for each industry, and would be applicable to producers both of capital goods and intermediate products, and of durable consumer goods. Similarly, they would relate not only to the initial proportion of parts produced in Central America, but also to the increase of that proportion

and the progressive use of other products likewise of Central American origin, deadlines being specified for the completion of the various phases into which this process was to be divided. Neither the initial proportion of locally-manufactured parts nor the higher percentages subsequently reached would necessarily have to be obtained through the activities of the assembly plant itself, but could be covered, in part at least, with the output of other Central American industries. Certain advantages would attach to this policy, inasmuch as it would foster a wider diffusion of industrial ownership, and at the same time would open up new possibilities for private enterprise in the area. Moreover, in the case of assembly activities already established, whose limited capacity might make it difficult for them to meet the requirements of the protocol directly, the use of parts manufactured in other plants might facilitate their compliance with its stipulations and enable them to enjoy the benefits of larger-scale production.

If parts manufactured in other Central American plants are to be used by assembly industries, several conditions must be fulfilled. In the first place, programmes would have to be established for the standardization and typification of parts that could be produced within the area, as a means of guaranteeing their quality and specifications. Secondly, it would have to be decided in each case which parts were to be made by the assembly enterprise itself and which were to be purchased from other Central American sources. Lastly, with reference to the latter, industrial promotion programmes would have to be formulated in order to ensure timely supplies of the manufactures concerned.

An aspect of the problem closely linked to the foregoing is that of the number of makes of products assembled, the range of models within each make, and the frequency with which their designs are changed. In view of the characteristics of the Central American market, the existence of even a small number of makes might seriously obstruct the subsequent development of the industry, by splitting up demand and making it difficult to reap the benefits of large-scale production. Working on the basis of a great many models, or changing them faster than was warranted by the duration of the useful life of the basic equipment involved, would also tend to increase investment costs per unit of output. Accordingly, the protocol should contain provisions to ensure that assembly activities would be established on the most economic lines possible with regard to the number of makes and models. This might be achieved, for instance, by granting concessions for the establishment of assembly activities on a competitive basis, the interested parties submitting the relevant projects so that the Central American authorities might select the one which would best serve the interests of the area.

5. *Tax benefits*

The exemptions granted to assembly enterprises under the protocol might be the same as those established in the Agreement on Tax Incentives, including the deduction for reinvestment in machinery and equipment. This would be justifiable inasmuch as the protocol—envisaged on the lines described—would embody selective criteria analogous to those adopted in the formulation of the Agreement, and would include supplementary provisions.

designed to ensure the attainment of exactly the same objectives.

With regard to the amount and duration of the various exemptions, it would not seem advisable to accord the same treatment to assembly activities as to the corresponding manufacturing industries. Moreover, in view of the priority criteria indicated above, the tax incentives applicable to assembly enterprises would have to be graduated in accordance with the importance of the various assembly activities for the development of the Central American economic unit. To that end, the protocol should contain provisions by virtue of which the enterprises first established to assemble capital goods and intermediate products should be granted the benefits established under the Agreement for new industries in group B, while those for group C should be extended to plants assembling durable consumer goods. Consideration would also have to be given to the conditions applicable in the case of activities associated with the establishment of any additional assembly industry complying with the terms of the protocol, and to the incentives they were to be granted, where appropriate.

Thus, enterprises engaged in the assembly of capital goods and intermediate products would be granted total exemption from customs duties on imports of machinery and equipment, during a period of eight years; exemption from customs duties on imports of fuel (other than petrol) for the manufacturing process, raw materials, semi-manufactured products and containers, including assembly parts (say 100 per cent for the first three years and 50 per cent for the next two); and total exemption from taxation on income and profits, assets, and net worth, for six years. Enterprises assembling durable consumer goods would be granted exemption from customs duties on imports of machinery and equipment for three years.

Once the tax exemptions conceded under the protocol had run their term, imports effected by assembly enterprises would be subject to the same tariff duties as the corresponding finished products. This might have an unfavourable effect on the activities concerned as it might prove difficult for them to develop their substitution programmes on the basis of Central American production. To overcome this difficulty, the temporary tax incentives might be complemented from the outset by the adoption of differential margins in the common import tariff, by virtue of which the duties established be higher for the finished product and lower for its component parts. The width of these margins would have to be defined in each individual case, with due regard to the characteristics and requirements of the various industries, but in conformity with the general principle that the more privileged industries should be those assembling capital goods and intermediate products, and that proportionately lesser tax benefits should be enjoyed by assembly activities producing durable consumer goods. To that end, assembly enterprises would have to furnish complete information on the costs of imported parts and units. The authorities responsible for the administration of the protocol, on their part, should carry out detailed studies on these aspects of the problem.

Periodically, and preferably at intervals coinciding with the different phases of the substitution programmes, tariff margins would have to be revised and, where nec-

essary, adjusted to the variations observable in costs and prices of assembly materials of Central American origin in relation to reliable data on their imported counterparts.

The existence of different duties for finished products and component parts would mean that enterprises both manufacturing and assembling parts, assembly activities pure and simple, and the importation of spare parts, all enjoyed the same benefits. To prevent this, various alternative possibilities should be considered in respect of supplementary clauses to be added to the protocol. On the one hand, it might be stipulated that tariff differentials should be applied only to products assembled in conformity with the provisions and regulations of the protocol. For that purpose, the duty applicable to the assembly material would have to be adopted in each individual case. It should be partly *ad valorem* and partly specific, the specific proportion being established with the aim of maintaining a minimum level of tax revenue. The *ad valorem* element, on the other hand, would serve to ensure that the duties payable by the assembly enterprise really did tend to decrease as its substitution programmes were put into effect, and more use was made of parts of Central American origin. The tariff differential would be fixed in relation to the duty on the finished product and the average incidence of the official values (*aforos*) assigned to its component parts in the standard import tariff. The scale of these values would have to be based—with whatever additional break-down was necessary—on the establishment of appropriate tariff levels for parts included in substitution programmes and for those that would always have to be imported. The tariffs would likewise be applicable to imports of parts for assembly activities pure and simple and of spare parts.

6. Regional distribution of customs revenue

Some of the products of assembly industries are important from the standpoint of the revenue at present accruing from Central America's imports of such goods. To prevent considerable losses—and irrespectively of the internal taxation that might be established in accordance with the legal provisions in force—it would be worthwhile to consider the possibility that, in cases where external purchases of finished products were superseded by imports of parts for assembly operations, the customs revenue accruing from the latter might be distributed among the member Governments proportionally to the sales registered in each country. To begin with, the Government of the country in which the assembly plant was situated might assume responsibility for collecting the revenue in question, managing it like a trust fund and distributing it to the other Governments in accordance with suitable registers that would have to be established. Subsequently, as the number of assembly industries in the various member countries increased, and while the Central American customs union was still in process of formation, these functions might be handed over to a regional office set up expressly for the purpose.

7. Application of the protocol: regional regulations

Since the characteristics and requirements of assembly activities vary from one industry to another, the protocol

should be confined to the establishment of a series of regulatory provisions and criteria, which would be formulated in specific terms in an additional set of regulations to be drawn up in each individual case by the Executive Council and the Economic Council of the General Treaty. In line with the principles laid down in the protocol, these regulations would specify, *inter alia*, the minimum proportion of Central American parts to be used by assembly plants on first entering operation, the amount by which and the time limits within which that proportion should be increased, tariff differentials, and questions relating to the number of makes and models. The regulations would serve as a framework for the formulation of agreements or decrees in respect of classification.

Obviously, for all these purposes comprehensive studies on the various technical and economic aspects of the establishment and development of assembly activities would be required. Within the regional approach described in earlier sections of the present note, it would be incumbent upon ICAITI, BCIE and SIECA to carry out these studies. Since various projects for the installation of assembly plants in Central America are already being urged, an immediate start should be made on this research, to which end advantage might be taken of the present opportunity to draw up the pertinent schedule and adopt appropriate measures with regard to procedures and deadlines.

With the creation of the body of instruments constituted by the protocol and its regulations, not only would a proper legal and administrative framework be set up for channelling the activities of private enterprise in the field of assembly industries, but an appropriate basis would also be provided for Governments to promote, through the regional economic integration mechanisms, the establishment of those industries which might play a key role in the development of Central America's manufacturing sector. As a part of this effort, to supplement the guiding principles already indicated, in

the formulation of the above-mentioned regulations due account should be taken of the practical possibilities of promoting assembly activities on the basis of industrial complementarity agreements with other countries and groups of countries. The market-size limitations which might militate against the efficient operation of the enterprises concerned could thus be mitigated or eliminated, and better conditions would be created for the conversion of their activities into complete manufacturing processes at an earlier date.

Lastly, both the protocol and its regulations should be applied through decisions by the Executive Council establishing the terms of the contracts to be signed in each case between the national authorities and the beneficiary enterprise. Only thus, through the application of the said instruments on a completely regional basis, could assembly activities be installed in conditions suited to Central America's requirements. As has been shown, the initial production capacity of such plants is particularly important, not only from the standpoint of the proper satisfaction of available market demand, but also from the angle of the existing possibilities for their gradual transformation, in due course, into manufacturing industries. Moreover, pursuant to the principle of economic integration, better advantage could thus be taken of the possibilities for the production of parts in member countries other than that in which the assembly enterprise concerned was located.

8. *Other provisions*

In addition to the points already touched upon, the protocol should contain provisions establishing procedures in all respects necessary to supplement those already laid down in the Agreement on Tax Incentives, as well as stipulations as to the securities that enterprises would have to offer in respect of implementation of their integration programmes, quality and prices of products, and supply conditions.

RECENT ECLA ACTIVITIES

I. WORKSHOP ON BUDGETARY CLASSIFICATION AND MANAGEMENT IN CENTRAL AMERICA AND PANAMA*

(San José, Costa Rica, 18-30 September, 1963)

A Workshop on Budgetary Classification and Management in Central America and Panama was held from 18 to 30 September 1963 at the headquarters of the Advanced School of Public Administration for Central America (ESAPAC), San José, Costa Rica, under the auspices of the United Nations Technical Assistance Programme, the Economic Commission for Latin America (ECLA), ESAPAC, the Latin American Institute for Economic and Social Planning, the United Nations Bureau of Technical Assistance Operations (BTAO), and the Fiscal and Financial Branch of the United Nations Department of Economic and Social Affairs.¹

The meeting was attended by twenty-two officials designated by the Governments of the Central American countries and Panama. They all served in an individual capacity as experts and their opinions did not necessarily reflect those of their Governments. An expert from the Joint Central American Programming Mission (OAS/IDB/ECLA/SIECA/BCIE) also took part.

The purpose of the Workshop was to consider what changes should be made in the budgetary concepts and practices of the Central American countries in order to integrate the processes of budget preparation and implementation with those of planning. The discussions were therefore centred on problems to which the introduction of performance budgeting would give rise. The results achieved by the Central American countries in classifying government transactions by economic and functional categories were also reviewed.

The following subjects were discussed: review of the work of budgetary reclassification; relationship between medium and long-term economic development plans and the annual budget; the performance approach to government budgeting; performance budget classifications and measurement of results; performance budgeting and public accounting, and establishment of a system of performance budgeting.

The conclusions and recommendations adopted are set out below:

* See the report on the Workshop (E/CN.12/692).

¹ This was the eighth in the series of Workshops organized by United Nations Headquarters in collaboration with the secretariats of the regional commissions, and the second for the Central American countries. The first of the whole series took place at Mexico City in 1953, with the participation of the Central American countries, the Antilles, Mexico and the United States. In May 1959 and September 1962 similar meetings were held at Santiago, Chile, for the South American countries. Workshops were also convened at Bangkok in 1955, 1957 and 1960 for the countries of Asia and the Far East. In 1961 the first Workshop of this kind for the African countries was held at Addis Ababa.

1. The Workshop noted with satisfaction the achievements of the Central American countries and Panama in budget reforms and development planning. The participants laid particular stress on the need for redoubling the efforts being made in these fields until integrated mechanisms have been created for the formulation, implementation and control of development plans and their co-ordination with annual budgets. For that purpose it was deemed essential that the programming process should be closely connected with the work of preparing the budgets and that adequate co-ordination machinery should be established.

2. The economic integration of Central America will create an increasing need for co-ordination between the national development plans designed to expedite the balanced growth of the different economies. The Workshop attached special importance to the establishment of planning mechanisms and budgetary systems on uniform technical and methodological bases aimed at making such co-ordination easier to achieve.

3. With those ends in mind, the Workshop recommended that the technique of performance budgeting be adopted in the countries that had not yet done so, on the grounds that it was especially suited for converting the budget into an effective instrument in the execution of economic development plans.

4. It was noted that the technique of performance budgeting was being introduced in accordance with the guidelines set forth in the *Manual for programme and performance budgeting*, which is a valuable contribution to the establishment of this type of system. It was acknowledged that general standards should be formulated and applied in the Central American countries, to make it possible for uniform classifications by programmes and activities to be worked out, with due allowance for the particular circumstances and administrative systems of each country. It was considered advisable that the fiscal year should be the same in all the countries of the area and that it should coincide with the calendar year.

5. The Workshop particularly recommended the adaptation of public accounting systems to the implementation requirements of development plans and performance budgets. Stress was laid on the importance of perfecting the organization and structure of national accounting systems to ensure a regular flow of uniform data on the progress of plans and programmes, and on an efficient control of funds.

6. The Workshop was of the opinion that, to ensure greater efficiency in the preparation of development plans

and their co-ordination with the annual budgets, it would be advisable to reorganize the central budget offices and to create sectoral planning offices at the ministerial level.

7. Note was taken of the progress made by the countries of the area in economic and functional classifications, as recommended by the first Workshop on Budgetary Classification and Management held at Mexico City in 1953. The recommendation put forward on that occasion was endorsed by the present Workshop in the sense that the *Manual for economic and functional classification of government transactions* should continue to be used as a guide for the work of reclassification. It was further recommended that the Governments should adopt a simplified scheme for the economic and functional classification of transactions in the public sector and apply it throughout the area.

8. The Workshop pointed out that the classifications by programmes and activities and by objects of expenditure should be made as uniform as possible for all countries. Note was taken of the definitions of programmes and activities that had been suggested by the Workshop on Budgetary Classification and Management in South America, held at Santiago, Chile, in 1962. The present Workshop supplemented the definitions by a provisional classification of expenditure by object in order to facilitate the introduction of the classification on a uniform basis and to integrate it with the system of performance budgeting.

9. Attention was drawn to the valuable contribution which the Joint Central American Programming Missions (OAS/IDB/ECLA/SIECA/BCIE) had made to the improvements in budget practices introduced in the countries of the area during 1963, and stress was laid on the desirability of the mission's extending its technical

assistance activities to all the Central American countries in the interests of methodological uniformity.

10. It was agreed that there was urgent need for training national officials in budgetary and public accounting techniques, inaugurating or improving the relevant university courses and redoubling the valuable efforts being made by ESAPAC at the regional level through its training courses, by the Latin American Institute for Economic and Social Planning and by other international organizations.

11. In addition, it was recommended that expert working groups should be set up in the countries of the area to study specific problems connected with performance budgeting, and to formulate, in the light of their experience, standards and methods for improving the practical application of the system.

12. In order to make a periodic evaluation of the progress achieved in standardizing budget nomenclature and to suggest expedient improvements, it was recommended that annual meetings of experts on budgeting and public accounting should be held in the countries of the area and that information on the advances made in those fields should be published regularly, together with the pertinent statistics, by the regional organizations concerned.

13. The Workshop was considered to have provided a highly useful opportunity for an exchange of information among the Central American experts and to have aroused fresh interest in accelerating the progress of budgeting techniques in the area. It was decided that the next Workshop should be organized for the region as a whole in order to make for a wider exchange of experience.

II. WORKING GROUP ON CLASSIFICATION OF MANUFACTURED PRODUCTS*

(Santiago, Chile, 4-15 November 1963)

Under the auspices of the Economic Commission for Latin America, a Working Group on Classification of Manufactured Products, composed of experts from seven countries, met at Santiago, Chile, from 4 to 15 November 1963. The Statistical Division of ECLA was responsible for the organization of the proceedings, and in addition, one staff member from the United Nations Statistical Office, one from the Inter-American Statistical Institute (IASI), and several from the Industrial Development Division of ECLA, co-operated with the Group in an advisory capacity.

Mr. Jorge Rubén Morinelli (Argentina) was elected Chairman of the Group, and each of the experts acted as Rapporteur in respect of specific chapters of the list.

The primary object of the meeting was to consider the document entitled *Proyecto de lista uniforme de productos manufacturados* (E/CN.12/648), prepared by the Statistical Division and presented at the tenth session of the Commission. This draft list enumerates 2 800 individual products comprised in Groups 201 to 399 of the *International Standard Industrial Classification of*

all Economic Activities (ISIC) and deemed to be representative of the production of the Latin American countries. It could be used for the industrial censuses and surveys that are being prepared in connexion with the World Programme sponsored by the United Nations and IASI.

At its meetings, the Group reviewed every product included in the list, eliminating those that were not particularly representative and adding others whose importance or production prospects made them of special interest.

The Group discussed the desirability of using, in the collection and presentation of physical output data, appropriate units for each product which should correspond as far as possible to those of the decimal metric system, and, in particular, for generators, prime movers and other specific machinery, units of power and capacity, or a combination of the number of units with power steps, as the case might be.

Although it transpired that some products were known by different names in different countries, the Group felt it preferable to keep to the Spanish name in most common use, and suggested that in such cases a glossary

* See the report of the Working Group (E/CN.12/AC.57/4).

of equivalent terms might subsequently be drawn up for internal use in statistical offices.

While considering the products included on the general list, the Group at the same time indicated those that could constitute a "minimum" list. From this analysis, a list of about 550 individual products resulted, representing some two thirds of the value of the region's manufacturing output.

When the classification of the products by activities was studied, it sometimes seemed necessary to place in a single group products that appeared in two different ISIC groups; a case in point, for instance, was that of the processing of vegetable oils and fats, where it is difficult in practice to break down output by its use for food or in industry. In other instances, suggestions were put forward as to the desirability of switching a product from the ISIC group in which it was classified to another where it seemed more logically to belong.

Particular attention was devoted to the chapters of the list that related to machinery. In this context, stress was laid on the need to establish special categories, and within each of these to indicate the machinery and appliances that were most representative. To that end, the participants undertook to send the secretariat a detailed list of the relevant products manufactured in their respective countries.

The Group likewise considered the document entitled *Propuesta de Subclasificación de los Grupos 201 y 399 de la Clasificación Industrial Internacional Uniforme de todas las Actividades Económicas (ISIC)*. While all

the participants recognized the pressing need of a more detailed classification than ISIC, they agreed that recent national production data would have to be available before a useful classification could be formulated, on the basis of which comparable statistics could be obtained for the region.

In this connexion, the members of the Working Group discussed the criteria that should be established for a more detailed classification than ISIC. It was agreed that the goods produced by the establishments classified in one of the proposed sub-groups would have to represent at least 75 per cent of total output of the items concerned for the sub-group to be meaningful.

Lastly, the Group decided to submit the following requests to the ECLA secretariat:

1. That it should obtain from the largest possible number of Latin American countries tabulations of physical output broken down in detail by activities;

2. That on the basis of the material received it should prepare a new draft sub-classification within ISIC; and

3. That it should convene, if possible in 1964, another Working Group to study:

(i) Experience in the use of the List of Products during the preparation and execution of industrial surveys and censuses;

(ii) Experience in the use of ISIC and national classifications of activities; and

(iii) The new draft sub-classification within ISIC indicated under point (2) above.

III. MEETING OF LATIN AMERICAN GOVERNMENT EXPERTS ON TRADE POLICY*

(Brasilia, Brazil, 20-25 January 1964)

In pursuance of resolution 221 (X),¹ the secretariat of the Economic Commission for Latin America convened a meeting at Brasilia, from 20 to 25 January 1964, on the United Nations Conference on Trade and Development, which was attended by specialists appointed by the Governments of all the Latin American countries. The purpose of the meeting was to promote "more efficient preparation and fuller mutual knowledge of those problems of the countries of the region which are to be discussed at the Conference". The meeting was attended by 104 experts, representing the Governments of Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Panama, Paraguay, Peru, Uruguay and Venezuela. Moreover, observers from the following organizations attended by special invitation: Organization of American States (OAS), Inter-American Development Bank (IDB), Latin American Free-Trade Association (ALALC), Latin American Centre for Monetary Studies (CEMLA), Panel of Nine appointed by the Inter-American Economic and Social Council, and

the Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA).

Mr. Celso Furtado of Brazil and Mr. Manuel F. Chavarría of El Salvador were elected Chairman and Vice-Chairman of the meeting, respectively.

The discussions were based on the document entitled *Latin America and the United Nations Conference on Trade and Development (E/CN.12/693)*, prepared by the secretariat with the co-operation of a group of eminent Latin American consultants,² who met for the purpose at Santiago, Chile, in October and December 1963. They also took into account the report of the Extraordinary Session of the Central American Trade Sub-Committee held in Mexico City from 6 to 11 January 1964 (ST/ECLA/CONF.13/L.4), and the note by the secretariat on *La posición latinoamericana ante la Conferencia de las Naciones Unidas sobre Comercio y Desarrollo (ST/ECLA/CONF.13/L.3)*.

The discussions centred on the following topics:

1. Measures for solving primary commodity trade problems;

2. Diversification of the composition of exports;

* The present note is based on the relevant report of the secretariat (E/CN.12/694).

¹ Resolution 221 (X), 16 May 1963, was published in the *Economic Bulletin for Latin America*, vol. VIII (1963), in the article entitled "United Nations Conference on Trade and Development", which also includes other background information on the Conference.

² The group of consultants was composed of the following: Mr. Eduardo Figueroa, Mr. Plácido García Reynoso, Mr. Adalbert Krieger Vasena, Mr. Julio Lacarte Muro, Mr. Carlos Lleras Restrepo, Mr. Marcio do Rego Monteiro, Mr. Jorge Sol and Mr. Enrique Gastón Valente.

- (a) Trade in manufactures and semi-manufactures;
 - (b) Trade in invisibles;
3. Policy with respect to the geographical diversification of trade;
- (a) Possibilities of trade with countries having a centrally planned economy;
 - (b) Possibilities of trade with other areas in the process of development;
 - (c) Regional integration and Latin American foreign trade;
4. Trade financing and economic development;
5. Organizations and measures for the promotion of world trade.

The work of the meeting was divided between two Committees. Committee I, under the chairmanship of Mr. Bernardo Grinspun (Argentina), considered items 1 and 2, while the remaining items were dealt with by Committee II, whose Chairman was Mr. Carlos Valenzuela (Chile). A report was issued by each committee.³

During the course of the meeting attention was drawn to the need to establish a new structure of international trade with a view to ensuring the more rapid, orderly and steady growth of the developing countries. Within this new structure, trade in the developing countries should reach levels likely to promote the attainment and maintenance of growth rates sufficient to ensure for the developing countries a substantial reduction in the gap separating their income levels from those of the developed countries. In this respect, the latter should grant preferences to the developing countries without granting them to other developed countries, besides recognizing their right to further exceptions to the most-favoured-nation clause. These and other principles applicable to the institutional regulation of world trade were formulated explicitly by the experts.

As regards primary commodities, the meeting objected to the policy of the developed countries which, through restrictions, protectionism, excessive internal taxes, subsidized exports, etc., was the cause of distortions in the present structure of world production and trade patterns and had an adverse effect on exports from the developing countries. The effect of such distortions brought about by the industrialized countries should be gradually eliminated within fixed time limits. Conclusions were formulated in relation specifically to tropical and temperate-zone products, as well as mineral ores and fuels.

The industrialized countries should grant entry to imports of manufactures and semi-manufactures from the developing countries, whenever such imports represented not more than 5 per cent of the domestic consumption of the importing country concerned, and they should do so by means of preferences not applicable to other developed countries, providing for full exemption from duties and other charges.

With respect to the geographical diversification of trade, primary consideration was given to the important question of the possibility of expanding trade with the countries having centrally planned economies, provided the latter undertook to establish quantitative targets in

their long-term and short-term plans, allowed for a greater measure of flexibility in their conditions of payment, and granted the developing countries preferences comparable to those requested from the industrial market economy countries.

The meeting recognized the need to promote the regional economic integration of the less developed countries, with due regard for the special features of the various countries concerned, while endeavouring to foster mechanisms likely to facilitate payments and the financing of intra-regional trade. The industrialized countries should have a clear understanding of the scope of such integration and do nothing to reduce or offset it. The regional economic integration of the developed countries entailed specific responsibilities on their part towards the developing countries: the over-all effect of the obstacles which such economic groupings might create for the developing countries should not be more than it was before they were formed.

Financing for development—in addition to requiring a maximum domestic savings effort—would have to enable the less developed countries to achieve a rate of growth that would reduce the disparity between their income levels and those of the industrialized countries; it should be provided on a multilateral basis and adjusted to development programmes. The servicing of financing for development purposes should be based on the amount the developing countries could actually afford to pay, once the servicing of the commitments they had already assumed, revised on a basis of long maturity periods and low rates of interest, had been computed. An indispensable step was to establish appropriate mechanisms whereby the developing countries could be compensated for any future loss that might result from the deterioration of their terms of trade.

As regards the institutional structure required for the new order in world trade, it was proposed to set up an organization within the United Nations system, which would have a membership open to all countries and sufficient authority to guarantee the implementation of the decisions adopted. Proposals were also put forward with respect to the mechanisms that should operate during the transition period between the Geneva Conference and the establishment of the final structure.

As the outcome of the criteria set out above, the following conclusions were adopted at Brasilia:

A. GENERAL PRINCIPLES

1. The United Nations Conference on Trade and Development should attempt, within the framework of General Assembly resolution 1785 (XVII), to establish a new structure of international trade, as an essential condition for ensuring the more rapid, orderly and steady growth of the developing countries. To this end the Conference should:

(i) Formulate the principles and operating rules that should govern world trade with the essential aim of transforming it into an effective means of promoting the economic development of the developing countries.

(ii) Establish—under the aegis of the United Nations—procedures and institutional machinery suitable for ensuring that the Conference's decisions are carried out, and in particular, that the trade problems of the developing

³ Document E/CN.12/694/Add.1 contains the reports of the two committees. It is available in Spanish only.

countries are the subject of systematic, detailed and continuing consideration.

(iii) Adopt specific measures, in line with the aims referred to in sub-paragraphs (i) and (ii) above, to help bring about an immediate increase in the external earnings of the developing countries.

2. The trade requirements of the developing countries that are to be served both by the new structure of world trade and by immediate measures taken for this purpose are those which, if met, will promote the attainment and maintenance of growth rates sufficient to ensure for the developing countries a substantial reduction in the gap that separates their income levels from those of the developed countries, with a view to closing this gap.

3. The new structure of world trade must be based on the need for general, non-discriminatory preferential treatment in favour of all the developing countries. This treatment involves establishing the following basic principles, among others:

(i) Reciprocal measures should not be required of the developing countries in respect of concessions or preferences granted by the developed countries.

(ii) The developed countries should guarantee the developing countries access to their markets on a non-discriminatory basis. Existing forms of discriminatory and preferential access that are considered indispensable in order to maintain the export earnings of certain developing countries should be replaced by compensatory financial measures.

(iii) The developed countries may grant preferences to the developing countries without granting them to other developed countries.

(iv) The developing countries may grant preferences to each other without granting them to the developed countries. These preferences shall be granted without prejudice to the rights and obligations deriving from regional associations among developing countries.

(v) In view of the different growth rates obtaining in the developing countries, provision should be made to a differential treatment in line with the particular characteristics of the countries at a relatively less advanced stage of economic development. This treatment should be based on the granting to such countries of special privileges that do not constitute a trade discrimination between developing countries.

4. The new structure of international trade should ensure the general expansion of world trade and promote its integration through the establishment of machinery and rules suitable for trade among countries at the same stage of development; at different stages of development; and with different economic systems. The new rules and measures intended to serve the trade requirements of the developing countries should apply equally to all the developed countries with market economies, and, in an equivalent form, to all the industrial countries with centrally-planned economies.

5. If the trade requirements of the developing countries are to be fully satisfied, international financial policies must be in line with trade policies conducive to the new structure of international trade, and the competent financial bodies must co-ordinate their activities with those of the bodies concerned with trade.

6. In view of the urgency of the problems confronting

the developing countries and the insufficiency of their external earnings, piecemeal measures cannot be effective. Consequently the measures set forth below, relating to various types of specific products and to other questions, must be regarded as components of a single integrated policy on world trade.

B. PRIMARY COMMODITIES TRADITIONALLY EXPORTED

1. The developed countries should abstain from taking measures which, directly or indirectly, constitute obstacles or are in the nature of reprisals against measures adopted by the Governments of the developing countries, by reason of their economic and social development requirements, with a view to regulating the systems of mining, processing and marketing of their natural resources, including measures involving changes in the system of ownership.

2. The developing countries should share increasingly in the benefits of technological progress, as a means of promoting their economic development; however, when their traditional trade flows are disturbed by the production of synthetics as substitutes for commodities, the developed countries should take steps to offset these effects by co-operating with the developing countries in the search for appropriate solutions.

(a) *Tropical commodities*

1. The high internal taxes that the industrial countries normally apply to the consumption of tropical commodities severely limit expansion of demand, and deprive the developing countries of valuable opportunities to increase their exports. Consequently the aim should be to abolish these taxes no later than 31 December 1965.

2. The customs duties that the industrial countries apply to imports of such tropical commodities should also be abolished by 31 December 1965. Similarly, all forms of discrimination against exports of tropical commodities from Latin America should also be abolished by the same date. The abolition of charges and discriminatory measures should also apply to products manufactured from basic tropical materials.

3. The customs duties and internal taxes imposed by industrial countries on final products containing a high percentage of tropical raw materials exported by the developing countries should be reduced to a level that will not hamper the expansion of the industrial activity concerned in the country of origin, and will contribute to the expansion of internal demand in the importing country.

4. As soon as possible a detailed study by experts should be undertaken, on the reasons for the high costs in some industrial countries of processing and marketing certain tropical products exported by Latin America, with a view to suggesting measures to avoid mark-ups considered as excessive.

5. It is essential that the developed countries support the negotiation of appropriate agreements on tropical products, always provided that they have the basic aim of promoting the development of the developing exporter countries and establishing more favourable terms of trade.

(b) *Temperate-zone agricultural commodities*

1. The developed countries should undertake to modify their agricultural policies which, through such action

as the price mechanism, different types of import restrictions and discriminatory treatment of all kinds, are the cause of distortions in the present structure of world production and trade, such modifications to be effected by means of the abolition of protective measures in favour of their agricultural production.

For this purpose, the first stage should be the setting of an over-all ceiling on the different forms of protection in order to bring about an improvement in the external purchasing power of the developing countries and thereby enable them to achieve their economic and social growth targets. The ceiling should be enforced before 31 December 1965, after which time the developed countries should carry out a programme of progressive reductions in the different forms of protection with a view to their complete elimination within the United Nations Development Decade.

In addition, quantitative restrictions and internal taxes applied to the trade of the developing countries should be abolished before 31 December 1965.

Similarly, subsidies for exports of agricultural commodities should be abolished by the same date.

2. The disposing of agricultural surpluses on special terms should not be effected at the expense of the export opportunities and intra-regional trade of the developing countries or of the agricultural development prospects of the countries receiving such surpluses.

International co-operation should, in fact, be provided in such a way as to increase the purchasing power of those countries so that they can buy their agricultural supplies where it best suits them. This will give the disposal of surpluses a more multilateral character which, in conjunction with the elimination of subsidies, will contribute to a better distribution of world agricultural production.

So long as surpluses are available for economic aid of this kind, their disposal should be undertaken on a multilateral basis with the participation of the countries concerned in each programme as well as the traditional supplier countries, through a special mechanism which should be set up by the United Nations Conference on Trade and Development.

3. In the case of commodities, with low income-elasticity of demand of which there is an excess supply, commodity agreements could, without prejudice to the foregoing recommendations, contribute to improving world trading conditions. To be effective, such agreements should conform to the following general guiding principles, with due regard for the type of product concerned:

(i) In some cases the price paid for imported products and those produced domestically should be fixed at an appropriate level between the prices prevailing in the main high-cost and low-cost production areas.

(ii) In establishing prices, account must be taken of the interrelationship of the different products and the risks of substitution. In some cases this would involve the conclusion of multi-commodity agreements.

(iii) Any limitations imposed on supplies should not be based on the assumption that the developing countries are prepared to accept the present distorted structure of world agriculture, but should ensure that these

countries achieve a volume of exports that is sufficient to meet their own development needs.

(iv) Any increase in consumption that is achieved in future should primarily benefit the non-subsidized producers, with a view to drawing progressively closer to what may be regarded as a rational structure for world production.

(c) *Mineral ores and fuels*

1. The industrialized countries should gradually abolish the measures of protection and discrimination of all kinds applied to basic commodities of mineral origin and fuels from the developing countries so that these may compete on an equal footing with each other and with exports from and local production in the industrialized countries.

These objectives should be achieved within the United Nations Development Decade. In any case, gradual liberalization should be initiated before 31 December 1965, by which date customs duties should have begun to be lowered and quantitative restrictions and internal charges imposed on such products should have been abolished.

2. The foregoing commitment should be extended to intermediate products of mineral origin in order to encourage a higher degree of processing of the basic materials in the country of origin and to enable them to be sold directly on the world market.

3. The developed countries should abstain from taking measures which, directly or indirectly, constitute obstacles or are in the nature of reprisals against measures adopted by the Governments of the developing countries, by reason of their economic and social development and national security requirements, with a view to regulating the systems of mining, processing and marketing of their fuels and minerals including measures involving changes in the system of ownership.

4. The Governments of the developed countries and international financing organizations should support the concession of medium and long-term loans to domestic enterprises in developing countries for the prospecting, mining, processing, and/or marketing of their own fuel and mineral resources.

5. The support of the developed countries is essential to the conclusion of suitable agreements on this type of commodity, provided always that such agreements are necessary to raise prices or to maintain them at a higher level for the purpose of increasing to the maximum the foreign exchange earnings of the developing countries.

6. Supplies of mineral ores and metals, including those deriving from strategic reserves stockpiled in the developed countries, should be disposed of in accordance with international regulations designed to ensure that there is no dumping, that the prices of the commodities in question are not reduced and that world trade is not distorted to the detriment of exports from the developing countries.

C. EXPORTS OF MANUFACTURES AND SEMI-MANUFACTURES

1. The developed countries should accord preferential treatment, on a non-reciprocal basis, to imports of manufactured and semi-manufactured products from the developing countries. The preferences should be granted by

all the developed countries in favour of all the developing countries, in accordance with the following provisions:

(a) *Provisions applicable to finished manufactured products*

(i) The industrialized countries should forthwith grant entry, free of duties and other charges of equivalent effect, to imports of all finished manufactured products from the developing countries, whenever such imports represent, for each product, not more than 5 per cent of the domestic consumption of the importing country concerned. Moreover, any industrialized country may grant similar preferences to imports exceeding the above-mentioned limit without extending them to other industrialized countries, providing that they apply them to imports from all the developing countries.

(ii) The duty-free import quotas referred to in conclusion (i) will not include imports from developing countries which already enjoy previously established preferences, without prejudice to the provisions laid down in point 7.

(iii) Imports from the developing countries that exceed the limits indicated in conclusion (i) shall be subjected to the relevant tariffs and to the application, when appropriate, of the most-favoured-nation clause.

(b) *Provisions applicable to semi-manufactured products*

The developed countries should, during the period provided for in the Development Decade, have gradually reduced and abolished the tariffs on imports of semi-manufactured products from the developing countries. This process of gradual liberalization should be initiated before 31 December 1965.

2. In giving effect to the foregoing conclusions, the developed countries should determine the measures required to adapt their production pattern so as to increase the purchase of semi-manufactured and manufactured products from the developing countries, thereby coordinating their trade in manufactured goods with the countries concerned.

3. To ensure that the benefits of the preferences referred to in point 1 actually reach those developing countries which are at a relatively less advanced stage of development, these preferences will have to be supplemented by:

(i) The formulation of special programmes of international technical and financial assistance, to enable such countries to make effective use of the preferential treatment granted to them and to convert it into a flow of industrial exports to the developed countries.

In the case of the developing countries that are in the process of economic integration, these supplementary programmes should be preferably carried out, through the regional institutions they have established.

(ii) The relevant organs of the world trade organization that may be created by the Conference must periodically evaluate the extent to which such preferences are proving to be of benefit to the majority of the less developed countries; if necessary, they should suggest further suitable ways of extending such benefits to those countries which, because of their relatively less advanced stage of development, have not succeeded in availing themselves fully of the opportunities offered by the preferential treatment they receive.

4. In all the negotiations providing for tariff reductions in respect of manufactured products, that may be conducted between countries or groups of countries prior to the entry into force of the agreements of the United Nations Conference on Trade and Development, the following principles should be borne in mind:

(i) Products of particular importance for the export trade of the developing countries should in no case be included among the exceptions that may be made;

(ii) Full advantage should be taken of the system of linear negotiations to introduce, concurrently with any tariff reductions for finished products, at least equivalent tariff reductions for items at an earlier stage of processing;

(iii) No restrictions of any kind should be applied that might tend to limit the benefits to be expected from the tariff reductions in question.

5. The adoption by the developed countries of measures favourable to the developing countries should not be conditional upon reciprocal concessions by the latter.

6. The developed countries should eliminate quantitative restrictions and charges other than existing customs duties in respect of semi-manufactured products for final use or consumption, and should undertake not to establish new barriers that would lessen the efficacy of the concessions accorded. Similarly, they should eliminate any other discriminatory measure hampering or preventing the free access of manufactured products from developing countries to the markets of the industrialized countries.

7. Steps should be taken forthwith to eliminate the preferences granted to some of the under-developed countries by certain developed countries, provided that these preferences have not already led to the creation of trade flows. When such trade flows have been established, the developed countries should limit the application of preferences to the volume of trade attained in the last few years, without prejudice to the gradual reduction and eventual elimination of such preferences.

8. As regards other obstacles to the export of manufactured and semi-manufactured products by the developing countries, suitable mechanisms should be established to ensure that trade restrictions originating in trusts, cartels and patents do not defeat the aims of the different measures to promote the export of industrial products by the developing countries.

9. Having regard to the need for expediting the industrial growth of the developing countries so as to enable them to diversify their foreign trade in the shortest possible time by exporting manufactured and semi-manufactured products, the developing and the industrialized countries should make every effort to create within the United Nations a specialized agency for industrial development.

D. TRADE IN INVISIBLE ITEMS

1. Developing countries should have the right to arrange for the maritime transport of their trade cargo by the media that suit them best, as well as to completely unobstructed freedom of transit for such cargo.

2. It should be recognized that the expansion of the national or regional merchant fleets of developing countries is a factor of importance for their economic growth.

3. The principle of preferential treatment for developing countries, on a non-reciprocity basis, in all matters relating to transport, should be established.

4. A system should be created to ensure the effective participation of the Governments of developing countries in decisions affecting maritime transport conditions and prices.

5. Regular shipping services among developing countries, as well as between them and potential purchasing centres, should be instituted.

6. Developing countries should have an increasing share in international insurance and reinsurance transactions, in the interests of their balance of payments.

7. Regional reinsurance institutions should be set up by the countries in question.

8. Standard clauses should be used in transport insurance policies, and insurance statistics in general should be standardized.

E. GEOGRAPHICAL DIVERSIFICATION OF TRADE

(a) *Trade with the centrally planned economies*

1. The centrally planned economies should undertake to establish quantitative targets for trade with the developing countries, and include them in their long-term plans and short-term policy decisions concerning foreign trade. These targets should be compatible with the trade requirements of the under-developed countries, and will form part of the new framework envisaged for the expansion of international trade, conducing to a more rational distribution of world production and trade in respect of certain products. In the case of manufactures and semi-manufactures where special procedures to encourage exports from the developing countries to the industrialized economies are required, the establishment of these quantitative targets should be accompanied by preferential systems in favour of the developing countries.

In every case, the developed centrally planned economies should grant the developing countries access to their markets, financing arrangements and other opportunities on terms not less favourable than those the developing countries are seeking to obtain from the industrialized market economies, as one of the objectives of the United Nations Conference on Trade and Development.

2. The countries with centrally planned economies should endeavour to conduct their operations in convertible currencies and on a non-discriminatory basis, and to expedite, in the immediate future, the adoption of measures whereby balances deriving from trade operations with the under-developed countries can be made transferable from one socialist country to another.

(b) *Promotion of trade among the developing countries*

1. If real advantage is to be taken of the developing countries' reciprocal trade potential, preferential rules and principles specially designed to serve this end must be adopted. Developing countries should be free to grant one another concessions that need not be extended to the industrialized countries.

2. Before these preferential regulations are formulated in specific terms, the developing countries in order to forestall difficulties of various kinds that might be

caused by the indiscriminate extension of special preferences, should make an over-all study of the principles and procedures that might prove most efficacious in encouraging their reciprocal trade; special attention should be given to this subject by any relevant institutional mechanisms emanating from the United Nations Conference on Trade and Development, as part of the reconstruction of world trade that should be its ultimate aim.

3. The preferences accorded to certain developed economies by specific developing countries should be abolished at the earliest possible date, and at the same time the establishment of new preferences of this kind should be prevented.

4. With international co-operation, an attempt should be made to examine and eliminate the problems and practices that militate against the trade of the developing countries, such as difficulties of communication and transport between areas in process of development, lack of trade, banking and other mechanisms or ties, etc.

5. Special consideration should be devoted to illiquidity problems, which particularly affect the developing countries, and would hamper their reciprocal trade if principles of unconditional multilateralism were applied.

(c) *Regional integration and Latin America's foreign trade*

1. The regional economic integration of the less developed countries should be promoted, with due regard for the special features of the various countries concerned, as an effective way of accelerating their economic development and expanding their intra-regional or inter-regional trade.

2. Care should be taken to see that, in the remodelling of the instruments under which world trade is conducted, priority is assigned and sufficient flexibility imparted to the regulations and procedures required for the implementation or consolidation of the economic integration processes of the developing countries.

3. Mechanisms should be promoted whereby payments can be facilitated within integrated regional groupings of less developed economies, and their intra and inter-regional trade can be liberally financed.

4. Every effort should be made to ensure that the scope and effects of the economic integration of developing countries are fully understood, in order to prevent certain forms of intervention on the part of the industrialized countries which might reduce or offset the expansion of inter-regional trade resulting from integration processes, or might affect the implementation of the policies concerned.

F. FINANCING OF TRADE AND DEVELOPMENT

1. The industrialized countries must recognize their responsibility in respect of helping to provide the international funds which, in combination with the maximum domestic savings effort that the less developed countries can reasonably be expected to make, will enable the latter to achieve a rate of growth that will reduce the disparity between their income levels and those of the industrialized countries. Their minimum contributions should be sufficient to bridge the gap between estimated import requirements of the developing countries and prospects for the

expansion of their capacity to import; a fair distribution of effort implies that all the industrialized countries should contribute an adequate proportion of their respective gross domestic products.

2. Multilateralism should, as far as possible, be the guiding principle followed in external financing arrangements with respect to amounts, mode of payment and procedures, which should be adjusted to development programmes (sectoral, national or regional) with due allowance for the special development requirements of the borrower countries and for their present levels and differing rates of economic development.

Consequently, external aid should not be channelled entirely towards the financing of specific projects, nor should it be contingent upon purchases by the borrower country from the country providing assistance. Provision should also be made for the possibility of partly or totally financing the local cost of the specific project or development programme for which funds are needed.

3. In establishing terms for the servicing of external financing, account should be taken of the magnitude of the commitments already assumed by the developing countries in relation to their accrued external debt, so that the amount of resources they have to earmark for meeting their total obligations does not exceed a reasonable proportion of their respective capacities for payment. To this end, international financing agencies as well as the Governments and institutions of the developed countries, should effectively contribute to a revision of the terms for such borrowing on a basis of long maturity periods and low rates of interest.

4. Efforts must be intensified and resources increased in order to provide countries, on request, with such technical assistance as will enable them to expedite their development and to use whatever external resources are made available to them with the maximum degree of efficiency.

5. An indispensable step is to establish appropriate mechanisms whereby the developing countries can be compensated for any future damage to their interests that may result from the deterioration of their terms of trade. In view of the status of the studies and discussions already carried out on this subject, it is recommended that a comparative evaluation be made of the various existing projects, together with other suggestions to which thorough consideration has not yet been given, with a view to the adoption of a decision at the meeting of CECLA, which may lead to the selection of the system best fitted to serve the ends in view.

6. The compensatory credit system put into operation by the International Monetary Fund since February 1963 constitutes a definite step towards the solution of short-term financing problems, but it needs radical modification if it is to fulfil its purpose more efficiently. In this context, the following recommendations formulated by OAS (at the Meeting of the IA-ECOSOC Special Committee on Basic Products, 5 to 9 August 1963) should be adopted forthwith:

(i) In determining the magnitude of the decline in exports earnings, more importance should be attached to their behaviour trends in the three-year period preceding the year in which the decrease takes place than to projections of exports for the two years immediately following it;

(ii) An exception should be established whereby compensatory credits are treated as completely independent of the structure of the gold tranche and of other successive credit tranches, so that the fact of obtaining compensatory credits neither directly nor indirectly militates against a member's chances of obtaining a current credit;

(iii) The amount allocated by the Fund to compensatory financing over and above its current transactions, should be increased from 25 to 50 per cent of the member country's quota.

These proposals should be supplemented by others, with the aim of making the scheme more automatic in its operation, simplifying and standardizing the criteria for granting funds, improving repayment terms and specifying the requisites to be fulfilled by member countries wishing to make use of the facilities in question.

7. Problems relating to insufficient international liquidity cannot be approached from the standpoint of the situation of the industrialized centres alone; the position of the developing countries must also be taken into consideration, and in their case, rather than transient circumstances, basic problems are involved, whose solution will entail fundamental changes of direction in world trade flows.

8. The lack of an adequate credit instrument for promoting exports from developing countries constitutes a factor that decisively limits their competitive capacity vis-à-vis exports from the industrialized countries. The use of international credit, through the appropriate mechanisms is therefore considered necessary for the financing of the developing countries' exports, especially those requiring medium and long-term financing. Similarly, with the financial co-operation of the developed countries, insurance systems will have to be established that will cover all the risks—not merely those of a commercial nature—to which the exports of the developing countries are exposed.

With the same end in view, the industrialized countries should facilitate the establishment of uniform export credit financing and insurance practices for the developing countries and co-ordinate them with the international financing mechanisms which, by means of appropriate credit systems, can strengthen—as one agency has already begun to do—the competitive capacity of the developing country.

Similarly, the capital exporting countries should accord their contribution to the financing of the less developed countries' investment programmes on terms that will allow it to be used for the purchase of manufactured goods from developing countries, including the recipient, provided that the goods so purchased from part of the investment financed and that provision is made to ensure strict observance of the basic principles of competition as regards price, quality and delivery deadlines.

9. The industrialized countries should adopt policies designed to standardize the use of suppliers' credit in the short and medium-term financing of exports, and aiming at more favourable terms for the importer, with regard to time limits, rates of interest and other requisites, than have been in force hitherto. This will prevent the terms of payment from constituting a determinant

of the direction of international trade flows, to the detriment of basic considerations of price, quality and delivery deadlines.

G. THE INSTITUTIONAL STRUCTURE OF WORLD TRADE

1. An international organization within the United Nations system must be set up as soon as possible to deal with world trade problems, and, more particularly, to meet the needs of development. This new organization should have a membership open to all countries, it should have sufficient authority to guarantee the fulfilment of the decisions of the United Nations Conference on Trade and Development and of the United Nations itself in the field of world trade and development, and it should be capable of providing, on a permanent basis, the main impetus of all activities relating to world trade regarded as a means of economic development.

2. Until such time as the instruments for setting up a permanent organization of this kind have been perfected, it is essential to establish immediate-action bodies with, as their central organ, the United Nations Conference on Trade and Development, which would reconvene within one or two years. The Conference would have a standing committee and a permanent and qualified secretariat, as well as its own budget, and *ad hoc* committees as required, all of which would work in close co-operation with the Economic and Social Council and with the regional economic commissions of the United Nations, to promote the critical evaluation, revision, and, in due course, the co-ordination of the world trade and development activities of the other international bodies acting in this field. This analysis should identify areas of duplication or inconsistency, together with any gaps or shortcomings in the work of these bodies, in order to prepare for their gradual and smooth integration within a new structure. The committees would also further the groundwork for a future trade organization, while in the meantime formulating, as necessary, practical rules directed towards implementing the trade policy that emerges from the principles adopted by the United Nations Conference on Trade and Development. A number of committees would operate under the direction of the Conference, including:

(i) A committee concerned with the relations between the developed and developing countries, which would speedily transform the Conference's decisions and recommendations into a special agreement that would govern the trade relations between the two groups of countries.

(ii) A committee concerned with relations between the State-trading countries and the market-economy countries.

(iii) A committee that would function in close contact with the United Nations regional economic commissions to strengthen the links and solidarity between the developing countries as a whole, particularly those of different continents.

During the period in question GATT, as the negotiating body between its present Contracting Parties, should continue to concern itself with promoting world trade within its present sphere of competence, having regard to the general guideline approved by the Conference.

H. OTHER MATTERS

The meeting of Latin American Government experts on Trade Policy expresses its appreciation of the co-operation afforded by the ECLA secretariat to the Latin American countries in their efforts to adopt a concerted position at the United Nations Conference on Trade and Development. Similarly, the meeting records its gratitude for the valuable preparatory work done by the secretariat, including its report entitled *Latin America and the United Nations Conference on Trade and Development* and the organization of the meeting at Brasilia, which are positive and substantial contributions towards the working out of a trade and development policy for the Latin American Governments.

In the light of these facts, the Meeting of Government Experts recommends that the ECLA secretariat should:

1. Continue to prepare papers on specific technical questions to facilitate the work of the Latin American delegations to the United Nations Conference on Trade and Development;

2. Continue to co-operate as actively as at present with the delegations of the Latin American countries during the Conference;

3. Convene a meeting of the ECLA Trade Committee, after the Geneva Conference, with the aim of evaluating the results achieved at Geneva and formulating specific recommendations to the Latin American Governments on the trade policy that should be pursued in the light of those results, and invite to the said meeting of the Trade Committee the Latin American organizations competent in the field of trade and development, in particular the Organization of American States (OAS), the Latin American Free-Trade Association (ALALC), the Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA), the International Development Bank (IDB) and the Inter-American Committee on the Alliance for Progress (ICAP).

4. Consider, at the said meeting of the Trade Committee, the establishment of a permanent Latin American system of consultations on trade and development, as suggested in resolution B-3/E63, adopted by the Inter-American Economic and Social Council at its second annual meeting at the expert level; for this purpose the ECLA secretariat should consult the Latin American Governments as soon as possible, to gather their opinions on the systems to be established, and should formulate its own suggestions which, once they have been studied by the Trade Committee, would be submitted to the eleventh session of ECLA, to be held in 1965.

* * *

As a consequence of the conclusions approved by the Meeting of Experts, the ECLA Committee of the Whole, at its tenth session, adopted resolution 241 (AC.57) on 13 February 1964, as set out below:

241 (AC.57) UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

The Committee of the Whole of the Economic Commission for Latin America,

Considering the need for concerted action on the part of the Latin American countries in the field of

foreign trade and development, particularly during the United Nations Conference on Trade and Development, and, subsequently, throughout the negotiations directed towards the establishment of a new order and new principles in international trade which will adequately safeguard the interests of the developing countries,

Taking note with satisfaction of the valuable study entitled *Latin America and the United Nations Conference on Trade and Development*, presented by the secretariat as a background document for the Meeting of Latin American Government Experts on Trade Policy held at Brasilia from 20 to 25 January 1964, and of the report by the secretariat on the said Meeting,

Bearing in mind the recommendations submitted to the ECLA secretariat by the above-mentioned Meeting of Government Experts,

Decides to request the secretariat:

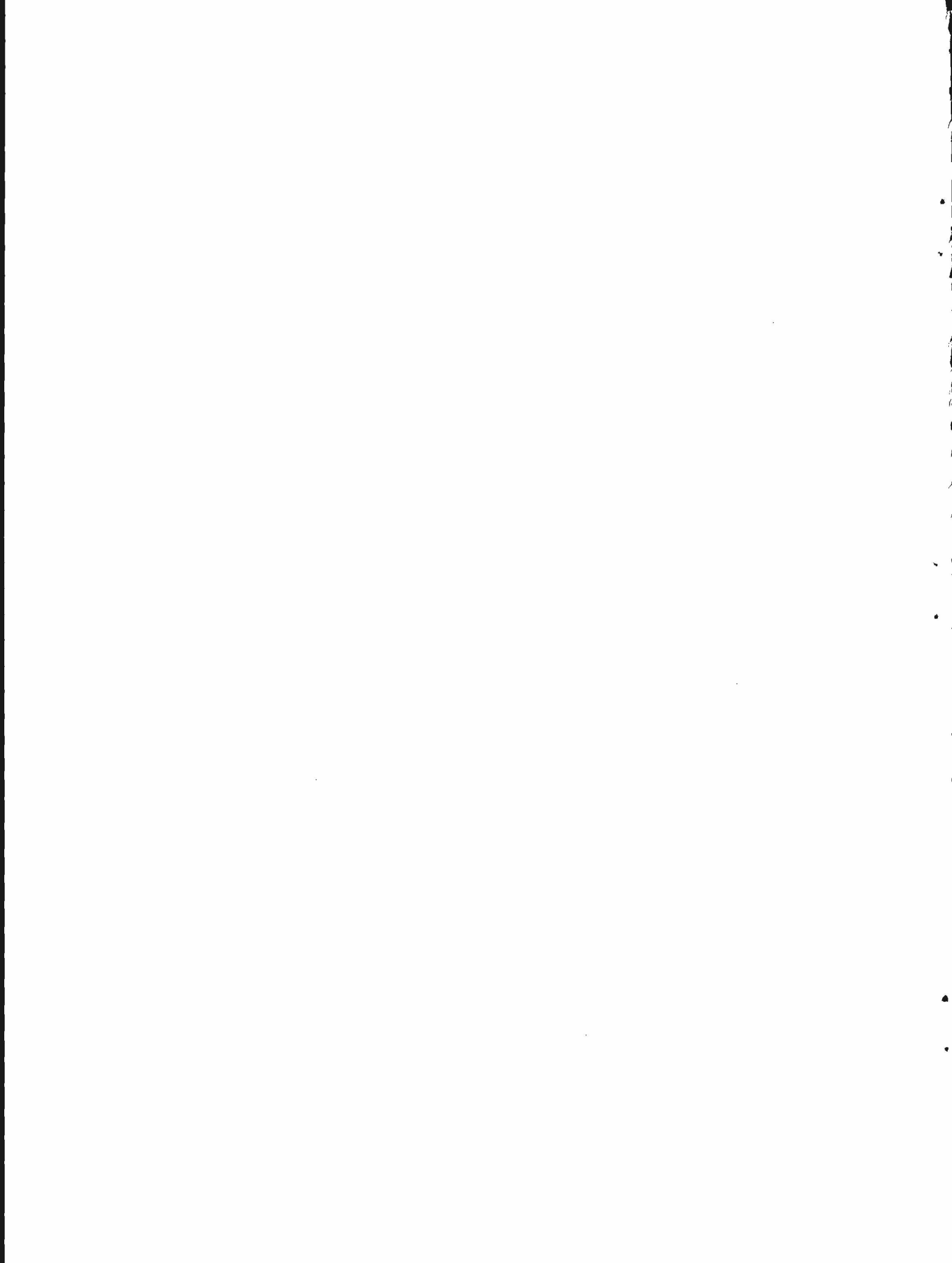
1. To continue to prepare papers on specific technical questions to facilitate the work of the Latin American delegations to the United Nations Conference on Trade and Development;

2. To continue to co-operate as actively as at present with the delegations of the Latin American countries during the Conference;

3. To convene a meeting of the ECLA Trade Committee, after the Geneva Conference, with the aim of

evaluating the results achieved at Geneva and formulating specific recommendations in the Latin American Governments on the trade policy that should be pursued in the light of those results, and invite to the said meeting of the Trade Committee the Latin American organizations competent in the field of trade and development, in particular the Organization of American States (OAS), the Latin American Free-Trade Association (ALALC), the Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA), the Inter-American Development Bank (IDB) and the Inter-American Committee on the Alliance for Progress (ICAP), the Centre for Latin American Monetary Studies (CEMLA), and the Panel of Nine.

4. To consider, at the said meeting of the Trade Committee, the establishment of a permanent Latin American system of consultations on trade and development, as suggested in resolution B-3/E63, adopted by the Inter-American Economic and Social Council at its second annual meeting at the expert level; for this purpose the ECLA secretariat should consult the Latin American Governments as soon as possible, to gather their opinions on the systems to be established, and should formulate its own suggestion for submission, after consideration by the Trade Committee, to the eleventh session of ECLA, to be held in 1965.



ACTIVITIES OF THE LATIN AMERICAN INSTITUTE FOR ECONOMIC AND SOCIAL PLANNING

REPORT OF THE GOVERNING COUNCIL FOR 1963-1964*

Part I

GENERAL ACCOUNT OF THE INSTITUTE'S ACTIVITIES AND ORIENTATION OF ITS WORK

At the outset of its activities for 1963 the Institute had already established the bases for its organization and had almost its full complement of professional staff. In addition it had a vigorous training programme that had been constantly improved during the preceding ten years, when it had been given by the ECLA secretariat. Continuing research on planning problems and techniques in Latin America was an important field of activity in 1963 which the Institute had to expend progressively as far as its resources and work programmes permitted. Similarly, it was necessary to extend the Institute's work in relation to the advisory groups.

Experience of Latin America's problems has made plain what immediate needs must be met in the planning field. Many such needs have already been indicated on previous occasions, but have revealed themselves more clearly during the most recent period of activities.

There is one group of questions in respect of which planning is limited by lack of precise knowledge of the concepts and techniques required. A typical example is the programming of social sectors as an integral part of a general plan. Another example is the adoption and execution of short-term policies in a form that will contribute to fulfilment of the plan's objectives, and this applies especially to planning in countries that are working towards integration of their economies, to a greater or lesser degree, and wish to build up their plans in a way that will promote or assist such integration. In all these fields continuing research is needed to permit the working out of new techniques, or ways of adjusting and applying existing techniques, for such specific situations. From a broader standpoint this indicates the need for a continuing effort to improve planning techniques and to study the problems as they arise in Latin America.

The institutional aspects of planning, and the general need to adapt administrative machinery to planning objectives, are now coming to be regarded as at least as important as the working out of development plans. As is known, the progress made in some countries in producing such plans has not been accompanied by equal progress with respect to instruments and machinery for their application. The Institute has dealt with this type of problem through the advisory groups and through the Training Programme. Obviously this subject must

* Document E/CN.12/AC.57/8 submitted to the ECLA Committee of the Whole at its tenth session. The annexes have been omitted since they are of more limited interest than the report itself.

be one of the Institute's main fields of action, with a view to advancing towards a solution of these problems, or at least suggesting formulas for their solution through a combination of research proper and surveys in the field. For the same purpose valuable use can be made of the Latin American experience being gained in the Institute through seminars and special working groups. With a view to expanding this fund of experience it has been decided that the Institute will co-operate with the International Bank for Reconstruction and Development in holding a seminar at the Institute headquarters during the first half of 1964, devoted to a study of the organizational and administrative aspects of planning.

Obviously what has been done thus far in planning in Latin America must be followed by a vast effort involving increasing difficulties since the setting in motion of a planning system involves decisions of a political nature on the part of the Government, as well as the considerable work of adapting planning methodology to the conditions of the individual country. Moreover, it is noted that the main effort in this field has centred on instruments of guidance in the form of medium and long-term programmes. Clearly similar progress is needed in the establishment and functioning of operational machinery, especially for the formulation of specific projects. The preceding observations make clear the need to increase the attention the Institute is devoting to the advisory groups, since as progress is achieved in planning tasks, new and different advisory requirements emerge, which do not come to an end as soon as the plans have been worked out.

Serious problems arise from the above situation, especially as regards the shortage of experts available in Latin America. This shortage has been dealt with to some extent on the basis of technical specialists who are well trained, but with limited experience, acting under the supervision of the chief of the advisory group and with the support and technical guidance of the Institute. The advisory groups could be strengthened and supported by the organization of a group of regional experts or advisers who have links with the technical staff of the Institute and are highly mobile.

Lastly, it is clear that the Institute should expand its sphere of activity by placing its ideas and the techniques it has worked out within reach of a greater number than hitherto. With this aim, and in line with the course indicated by the Governing Council on earlier occasions, a publications programme has been drawn up. The series published will include general texts and those dealing with common techniques, as well as manuals on sectoral and sub-sectoral programming. These texts include both those written for teaching purposes and those written

as theses. It is also thought that the manuals may have an operational value through facilitating the application of the various techniques and the knowledge acquired to conditions in the Latin American countries. In 1963 the preparation of a number of manuals was undertaken. It is expected that in 1964 manuals will be completed on projects (revised version of the existing manual), industrial programming, national accounts, budget programming, and transport. The order of publication will be determined by the rate of progress achieved in respect of the various topics.

The initial experience outlined above, as well as the experience and knowledge accumulated by ECLA over the years, have provided the guidelines for the Institute's activities.

The first of these guidelines is the practical turn that the Institute's activities must necessarily take in response to the requirements of the actual situation in Latin America. For this purpose both the features common to the region as a whole and those that characterize the individual countries must be borne in mind. Most of the countries of the region have established or are establishing planning bodies; over half of them have drawn up their first development plans, and in some countries these plans are already being carried out. However, there are great difficulties in their practical execution. Some of these difficulties arise from the political, economic, social and cultural structure and conditions in the country concerned; others are due to the characteristics of the plans themselves and of the institutional and administrative machinery needed to implement them; still others relate directly to the degree of evolution of the planning techniques that the Latin American countries are attempting to apply. How does the Institute propose to contribute to the solution of these problems, in accordance with the practical criterion referred to, without neglecting the theoretical elements essential to the maintenance of reasonable technical standards, and within the limits of its resources? This can be seen by studying the pattern of its main activities.

One of the most urgent problems in most of the bodies responsible for planning in Latin America is the lack of personnel trained in planning techniques. This is true at all levels, both in the central planning offices and in the other bodies belonging to the public sector. In order to attack this problem, the Institute has devoted the bulk of its resources to the Training Programme.

This Programme aims, through the Basic Course, at training as rapidly as possible the specialists needed to fill the ranks of the national planning bodies, at both the general and sectoral levels. The purpose of the intensive courses is to make the concepts and techniques of development planning known to a larger number of officials in Ministries, autonomous institutions and State enterprises in every country. Through the special courses it is hoped to reach the sectors of education, health and housing, which are important in the planning of social development.

The work of the participants in the Basic Course, both in the first part that provides a common training, and in the part dealing with special fields, is directed towards the application to problems and situations in their own country of the instruments and techniques about which they are instructed in relation to the various

subjects. In the intensive courses, on the other hand, the emphasis continues to be (and will be to an even greater extent in the future) on adjusting the actual scope and content of the courses to the needs and characteristics of the different countries where they are given. Perfecting of planning techniques and progress in theory provide the basis for the practical applications in question.

As regards the work of the OAS/IDB/ECLA advisory groups, the practical nature of their work makes it advisable to apply the planning strategy considered most suitable to the situation in the country concerned. Thus in some countries there is a more extensive and detailed diagnosis of the economic and social problems; in others the aim is the rapid establishment of plans and machinery capable of remedying pressing problems of stagnation; in yet others the need is to ensure that national plans contribute to advanced movements of multi-national integration, which offer the best prospects for rapid development. These different lines of action do not, of course, reflect any difference in methodology, but merely a recognition of the needs of different situations.

The work of the Research Division has been concentrated on three main projects, that are also governed to some extent by the criterion of their importance to Latin America.

An attempt is being made to keep up to date the analytic knowledge of the state and progress of planning in every country, and in the region as a whole, in order to keep an up-to-date account of the main obstacles to the efficiency of planning in Latin America, the solutions applied, how far such solutions are successful, etc. This work began with the study carried out jointly with ECLA and submitted to the Commission at its tenth session.¹

The second research project deals with the problem of the relationship between short-term economic policy and medium and long-term plans, with special emphasis on the operational and administrative aspects of planning.

The third project undertaken by the Research Division relates to another current problem of importance in the economic policy of the Latin American countries, namely, the relations between planning at the national level and the process of multi-national economic integration.

In all the research work carried out the aim is to develop flexible techniques and methodologies that can be adapted to the situation and stage reached in the various countries. Consequently the work is based on specific data from the countries of the region so that the results will be closely related to the actual situation.

The second basic guideline applied by the Institute is the inclusion in all its activities of the social aspect of economic development. The subject of social planning has not yet been dealt with as a whole, but some aspects are studied as part of the special courses in education and health. In addition, the fund of knowledge that is still lacking must be built up, and at the same time principles and methods must be formulated with a view to integrating the social and economic aspects within the planning framework. It is hoped that this task of in-

¹ *Progresos en material de planificación en América Latina* (E/CN.12/677), available in Spanish only.

cluding the social problems in the Institute's activities can also be extended to the advisory groups.

The third guideline concerns the need to make broad sectors of Latin America conscious of the idea of planning, and to provide for increasing participation by these sectors through study and discussion at the technical level. As a first step it is proposed to organize a seminar for trade union leaders. This project will be carried out in co-operation with the International Labour Organisation (ILO). The aim will be to enlist the co-operation of Latin America's labour leaders by familiarizing them with the practical problems of development. There is already an ample documentary basis for this task in the various studies by ECLA and the Institute. This basis will be used in studying the significance of planning and its importance for the economy as a whole, and in particular for the majority sections of the population. It is hoped that the seminar will represent a first step that can lead to further activities in this field.

Without prejudice to the importance of other considerations, it can be said that the above guidelines determine the basic pattern of the Institute's activities.

Before considering the state of the Institute's work, dealt with in Parts II and III of the present report, it should be pointed out that valuable help in meeting the demands of an ambitious work programme has been received from other international institutions and organizations such as the Inter-American Development Bank (IDB), ECLA, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Pan American Sanitary Bureau, the United Nations Bureau of Technical Assistance Operations, the United Nations Children's Fund (UNICEF), the Food and Agriculture Organization (FAO), the Organization of American States (OAS), the ILO, the Agency for International Development of the United States Government, and such private bodies as the Ford Foundation and Resources for the Future. This has provided an excellent opportunity of associating with professional and expert workers in other organizations. The new agreements concluded in 1963 include the agreement on co-operation with UNESCO, and the agreement with Resources for the Future, and an account of both is given later in the present report.

The year 1963 also marked the beginning of certain activities in conjunction with university groups in Latin America. These links must be placed on a more permanent basis, and be established at the level of work programmes and specific projects of common interest. For this purpose it is proposed to continue in 1964 the contacts already established with Latin American universities, with a view to exploring fields for initial co-operation.

On the basis of what has been said in the foregoing pages, there is now presented, in Part II, a summary of the Training Programme and Advisory Group activities, in line with the break-down adopted in earlier reports. Part III describes the Institute's activities by programming sectors, in a way that permits evaluation of the links maintained between the Institute's research programme, the advisory groups and the Training Programme. Each of these sectors is making growing demands on the Institute's attention, and this is reflected in the Work Programme for 1964.

Part II

TRAINING PROGRAMME AND ADVISORY GROUPS

Training Programme

As stated in previous reports, one of the most immediate results of the establishment of the Institute was the marked strengthening of the Training Programme. This is indicated by the increase in the number of participants in the various types of courses, as reflected in the following figures:

	1961	1962	1963 ^a
Basic course	49	62	74
Intensive courses	255 (5) ^b	301 (6) ^b	508 (9) ^b
Special courses	—	47	73
	304	410	655

^a Approximate figures.

^b The figures between brackets indicate the number of intensive courses in the year in question.

In February 1963 the first basic course in planning offered by the Institute was concluded, and between April and December the second was given. In addition there was a second course in education planning, a second course in health planning, a short course on manpower planning, and a seminar for heads of education planning offices in Latin America. There were also ten intensive courses, of which six were organized directly by the Institute; three, in Brazil, were conducted in co-operation with national bodies and with the ECLA/BNDE office, and the others (in Paraguay) were given directly by a group of ex-participants in Institute courses.

The Institute has now reached what must be regarded as a maximum figure, as regards both the number of courses and the number of participants, since no more can be done with present resources. In addition, it should be borne in mind that as more effort is being devoted to research and guidance activities, and to support of the OAS/IDB/ECLA advisory groups, it will be difficult to allocate additional resources in the current year to expansion of the Training Programme.

The basic aim pursued in this activity of strengthening the training programmes was to help to remedy as soon as possible the lack of staff that hampers planning work on most of the Latin American countries. Needless to say, it is not claimed that these programmes alone can solve the problem; this can only be done by a continuous and cumulative effort, based not only on the instruction in the courses and on the national training programmes, but also on the experience that the specialists are acquiring in carrying out practical planning work.

The Institute's first effort in the training field is also reflected in the orientation of the courses, a subject referred to both in earlier reports and in Part I of the present report. Suffice it for the moment to indicate certain features that are the practical evidence of the resolve that the fruits of the training programmes shall be lasting and continuous and shall be directly related to the actual situation in Latin America and to the specific requirements of economic and social planning in the countries of the region.

First, the process of selecting those who are to participate in the course has been perfected. As regards the Basic Course, there has been a growing tendency on the part of national planning bodies to propose candidates who are already working in fields that correspond to the special subjects covered by the second part of the course. This helps to ensure that the knowledge acquired in the courses will be applied to specific national planning tasks. In addition a special effort has been made to broaden the basis for selecting the candidates. For the 1963 course, 140 candidates were proposed, of whom 75 were chosen. This more rigorous selection was reflected both in the results of the courses and in their level.

The content of the courses, on the other hand, has been enriched through the experience obtained in previous courses and also in the course of the planning work being carried out in nearly all the countries of the region. Without prejudice to the necessary theoretical framework, and the teaching of new methods and techniques that are introduced in the light of research and experience, increasing importance is attached to the execution of the plans. Another trend is the increase in the practical work that the participants are expected to carry out through seminars and exercises, based on most cases on specific examples drawn from the region itself.

With a view to strengthening and continuing the Institute's link with those who take part in the courses, a series of measures have been adopted aiming at a more effective contribution to the planning work carried out in the various countries.

These measures include, first, the granting of post-graduate fellowships to some of the most outstanding of the participants in previous courses, who act as assistant lecturers. Thanks to the co-operation of UNICEF it was possible to offer six such fellowships in 1963. This permitted more individual attention to participants, and at the same time the formation of a body of high-level specialists. In view of the results obtained in 1963, it has been agreed with UNICEF that other fellowships of the same type shall be made available for 1964. In addition OAS has allocated ten special in-service training fellowships to be granted to graduates of the Basic Course to enable them to work as assistant experts in the OAS/IDB/ECLA advisory groups, after a period of special training at the Institute.

The preparation of teaching and practical manuals, as explained elsewhere in this report, is another way of bringing to a wider audience the Institute's teaching and the results of its research. The same is true of the national centres that are being created through the direct action of ex-participants in the courses, in order to publicize the concepts and techniques of development planning and extend the training of personnel at the local level. Special mention should be made of the work done in 1963 in Paraguay by a group of ex-participants in organizing and running an extensive training course.

In 1963 a survey of ex-participants was undertaken, to determine what direct experience they were having in applying the knowledge they had acquired from the courses. This survey covers over 2,000 professional workers in all the Latin American countries, and is one

way of maintaining a link between the Institute and its ex-students.

In 1963 the intensive courses were characterized by the following developments: (1) the continuation of a greater national participation in the organization and conducting of the courses, generally through the planning bodies and the universities; (2) the establishment in certain countries of permanent offices or centres for the conducting of such courses, generally with the aim of extending them to the various regions of the country; (3) the addition of new subjects (mathematics, statistics, development sociology, etc.); (4) the lengthening of the course, in some countries, and the introduction of special subjects such as agricultural, industrial, transport and education programming; (5) the holding of the first course for the five Central American republics, in which there was special emphasis on the relation between national planning and the Central American integration programme.

Advisory groups

The work of the tripartite OAS/IDB/ECLA advisory groups is now carried out in three South American countries—Paraguay, Peru, Uruguay—and in the five Central American countries, which are served by a joint mission. In addition there is an advisory group in Bolivia under the responsibility of the United Nations. The groups have not yet been able to make up their full complement, especially those in Bolivia, Paraguay and Peru.

The general trend of the Institute's activities in this field, and the main problems that must be overcome if its activity is to be more fruitful, have been dealt with in Part I of this report. In addition, the analysis in Part III, by programming sectors, gives an account of the Institute's activities in each of these sectors. It may be useful to give a brief account here for each country so as to show the progress made in terms of the trend in the individual country.

In *Uruguay* an analysis of the country's economy was completed. Much of the work consisted of preparing the statistical data needed for the analysis, including calculations of the product and related series, and the data on the external sector, the public sector, and others. The analysis was worked out in some detail, since this type of work was being done for the first time and it was therefore considered necessary to provide a body of data for analysis and evaluation on the various aspects of the country's growth, to serve as a basis for the discussion of development problems. It was believed more appropriate to provide, not a schematic outline of such problems, but a full study that would permit each aspect of the economy to be given careful consideration by public opinion and by the country's experts.

In the analysis for *Uruguay* an attempt was made, although not on a full scale, to link political questions and short-term problems with structural questions and long-term problems, by including an analysis of the problem of inflation and of the elements of monetary policy.

A project inventory was also drawn up, together with a study and evaluation of the projects. In addition a list was made of the matters that, according to the analysis, call for decisions that are needed as the basis of

a development plan. The next stage will be to work out an investment plan for 1964-1965, while at the same time a more long-term programme is worked out, linked with the national budget.

For the analysis for *Peru* a different approach was adopted. As there were already existing studies on Peru, including one by ECLA, it was decided to prepare, within a relatively short period, a study based on the existing material that would be supplemented by additional material with a view to setting out, in an organized though summary form, the country's basic economic and social development problems. In Peru, too, the aim was to include some important aspects of development that thus far had not been brought into systematic relation with the remainder, especially problems of regional economic growth and social aspects of Peru's development.

A short-term investment plan is now being prepared, while at the same time long-term macro-economic projections are being worked out.

In *Bolivia* a long-term plan had already been worked out and submitted, and the work consequently took a predominantly operational turn, with the aim of solving problems relating to the application of the plans. Thus in 1963 a two-year investment plan was prepared, the main projects covered relating to mining, petroleum, electricity, transport and land settlement. In addition the planning machinery is being strengthened, and sectoral offices are being set up for this purpose in each Ministry.

In *Paraguay* work progressed on an analysis of the various sectors in the economy and on the organization of sectoral groups within the Planning Board. Planning work has been directed to the drafting of a two-year plan that will cover mainly public investments. Progress has also been made in the introduction of the programme budgeting system and in the drafting of a national economic budget. It is expected that in 1964 the first two-year plan will be completed and over-all projections of the economy will be undertaken that can be used subsequently in a plan covering a larger period. Part of these projections and other long-term elements will be used as basic parts of the plan now being drafted.

In *Central America* central planning offices have been organized and have begun operating in each of the five countries of the area. Work has begun on organizing sectoral units in the various Ministries and decentralized bodies. Progress has been made in preparing over-all and sectoral analyses, of which the preliminary versions will be completed early in 1964. An inventory has been completed of public investment projects in the infrastructure, and of private investments under the aegis of the Industrial Manufacturing Council. To complete the work at this level studies are being organized on the main branches of industrial activity, with the co-operation of the ECLA secretariat, the Central American Research Institute for Industry (ICAITY), the Central American Bank for Economic Integration (BCIE), and consultants specially recruited for this purpose. With the co-operation of the Advanced School of Public Administration for Central America (ESAPAC) preliminary studies are being carried out to provide a basis for undertaking reforms in the main public administration activities during 1964. It is envisaged that these studies

will be finished early in 1964. In all the Central American countries the basis has been laid for introducing budgetary planning and working out national budgets on a programme basis in 1965.

The Joint Programming Mission for Central America is responsible for studies on the regional aspects of planning and the technical co-ordination of plans carried out at the national level. The mission is made up of eighteen experts, of whom fifteen have been recruited by, and act under the general direction of, an Advisory Committee made up of representatives of the Organization of American States (OAS), IDB and ECLA, the Chairman of the BCIE and the Secretary-General of the Permanent Secretariat of the General Treaty on Central American Economic Integration (SIECA).

Part III

THE INSTITUTE'S ACTIVITIES IN THE VARIOUS FIELDS OF ECONOMIC AND SOCIAL PLANNING

With the aim of providing a more complete picture of the Institute's activities in 1963, and its Work Programme for 1964, this part of the report deals with these activities by subject.

Industrial programming

In this field the intention is to bring together in a single theoretical and practical outline the main economic and technological aspects of the manufacturing industry in relation to the planning process. This aim is reflected in the teaching and advisory activities and in a synthesis in the form of a document on industrial programming that presents in an orderly and systematic manner the information given in the courses, the experience now being accumulated in the course of the planning work carried out in Latin America and other parts of the world, and, in particular, the results of the research conducted at the Institute and elsewhere to clarify certain basic aspects of this sector. One of these aspects, measures of industrialization policy and the kinds of bodies through which such policy can be carried out, is being made the subject of a detailed analysis.

In 1963 the special series of lectures on industrial programming under the Basic Course that began in 1962 was concluded, and from August to December the special courses under the 1963 Basic Course were given. An important innovation was the introduction of a course on the economy of the industrial enterprise, and short courses on specific industries, chosen in the light of their importance within the framework of Latin American development. These courses provide the minimum technological information needed by an industrial programmer. More time was devoted to seminars on the preparation and evaluation of projects, which are based on actual industrial cases. It is also of interest to note the use of certain theoretical tools—such as linear programming—for the study of practical problems of alternative techniques and processes applicable to situations characteristic of the countries of the region.

In co-operation with ECLA two documents were prepared for the Seminar on Industrial Programming in São Paulo, *La experiencia de los Grupos Asesores en la formulación de programas de desarrollo de la industria manufacturera* (ST/ECLA/CONF.11/L.7), and

Algunas notas sobre problemas de programación industrial (ST/ECLA/CONF.11/L.2).

Within the above-described framework, the intention is to make a detailed study of the problems of policy and organization referred to, and of problems of the financing of industrial development and the application of certain mathematical models to the programming of the industrial sector.

Agricultural programming

In this sector particular attention is being devoted to factors of an institutional nature. Thus the special subject of agricultural programming covered such structural and institutional factors, especially through the study of problems of land tenure, rural sociology and agrarian policy. These subjects were taught after some information had been imparted on the instruments used in appraising and analysing the situation of the sector and its behaviour. Subsequently, at a third stage, a study was made of employment problems and the use of planning techniques in the agricultural sector. In 1963 various matters relating to the execution of agricultural development plans were also studied, including the consideration of alternative policies. In 1964, although the general structure of the syllabus will not be changed, there will be greater emphasis on teaching about such tools as linear programming and the statistical sample.

Lectures were also given on this subject in the intensive courses conducted in 1963 in Central America, Mexico and Peru. The shortness of these courses permitted only a very general outline of agricultural programming, but the experience gained will make it possible to improve the courses considerably in 1964.

The problems encountered in lighting upon a complete explanation of the difficulties of agricultural development, and on techniques for identifying these difficulties, analysing them and remedying them within the framework of an appropriate scheme, underline the urgent need to carry out an intensive research programme aimed mainly at throwing light on the process of agricultural development and working out or improving programming techniques applicable to Latin American agriculture. In this connexion work was done in 1963 on an explanatory model—based on past data for the Latin American countries—showing the relationship between the agricultural sector and the rest of the economy, especially from the standpoint of the allocation of resources. It is expected that this study, and others that will be undertaken in 1964, will provide information that can be used in solving problems relating to the allocation of resources to the agricultural sector within an over-all development plan, to the distribution of these resources within the sector, and to decisions on policy measures that can be used to accelerate the growth of the agricultural sector, and convert it into a dynamic factor for general development.

Advisory group activities in this field were limited. In Peru the group participated in an analysis of a preliminary diagnosis of the sector, and a complete schema for a review was suggested. In Uruguay the diagnosis made by the group was studied and further research work was suggested on the characteristics and results of the price policy, on activities relating to land settlement, and on pasture improvement programmes. In

Bolivia work was done both by the expert appointed to the advisory group, and by the experts in the Joint ECLA/FAO Agriculture Division who visited Bolivia, on problems relating to the preparation and evaluation of specific projects. The assistance to the advisory groups in the field of agricultural development in 1964 was provided by the Institute in close co-operation with the Inter-American Committee on Agricultural Development and the Regional Office of the FAO, as well as with the Joint ECLA/FAO Agriculture Division.

Transport programming

During 1963 advice on this subject was given to the various countries, and work began on the preparation of the Transport Programming Manual. This manual is to serve both as teaching material and also as a reference text for the experts of the various countries. To make it more suitable for these two purposes, it will include an annex on transport technology and another on the formulation of projects in this sector.

As regards training, the special lectures on this subject in the Basic Course for 1962-1963 were concluded and courses were given in Mexico and Central America. Although these two courses differed as to level and degree of detail, in both there was great emphasis on methodological questions, on the formulation and evaluation of programmes and projects, and on the study of alternative policies for the execution and review of programmes. The theoretical instruction was supplemented by considerable activity in the form of seminars and by research work aimed at helping the student to deal with the problems of his own country.

In 1964 the lectures on this special subject in the second part of the Basic Course will again be given, with emphasis on problems of programme execution, co-ordination between short and long-term plans, and the formulation of transport policies aimed at integration of the various means of transport both with each other and with the rest of the economy.

The Institute also took part in the transport programming activities in Bolivia, Colombia, Peru and Uruguay. In the coming year work will continue in this field, in which teaching and research can be based on specific experience in the region. For this purpose the Institute's experts will work with the advisory groups for fairly long periods.

Natural resources

In 1963 the Institute's main activity in this field was an attempt to make clear its links with planning. For this purpose an annotated outline was prepared, intended to serve as a basis for internal discussions aimed at a better definition of the relations between the survey of natural resources and the various stages and sectors of planning. On the basis of an internal seminar, in which experts from ECLA and from other bodies also took part, work has begun on studies to define the basic concepts in the field of natural resources, the techniques used to survey and evaluate them, the effects of technological advances on the supply and demand of natural resources, and an account of the role that they have played in the past at different stages of the development of certain countries.

As regards training, some short courses were included in the first stage of the Basic Course at Santiago, and in the intensive course in Uruguay.

In addition the Institute helped to determine guidelines for the work of the Advisory Group in Uruguay in analysing and diagnosing the problems relating to natural resources in that country.

Co-operation has begun with a mission organized by the IDB to determine the possibilities of economic integration in the frontier zones between Colombia and Venezuela. The expert on natural resources will draw up a preliminary inventory of resources with a view to a diagnosis of the limiting factors and possibilities as regards the integrated development of the frontier zone.

An agreement has been drawn up with the well-known United States organization Resources for the Future, Inc., whereby two high-level experts will be allocated to the Institute in 1964.

Human resources

The planning of human resources represents a new field of activity whose exact limits are not yet known. Thus this subject may be regarded, by different people, as covering essentially the analysis of employment problems, or of health and nutrition, or as relating to education planning, or to analysis and projections of manpower needs. These different interpretations indicate the need for a vigorous research programme, starting with the systematic organization of the theories and experience of different parts of the world, particularly the Latin American countries. This should pave the way for a complete study of the problems of planning human resources in Latin America, that might initially consist, broadly speaking, of a critical analysis of research conducted and methods used in the Latin American countries in this field, and the needs and gaps that it reveals.

The work began in 1963 with a study of the existing material available on the development of technical instruments and models for studying problems of employment and future manpower needs.

For the first time there was a special course in this subject. There were also short courses on human resources during the first part of the Basic Course, in the special course of programming in the public sector, in the special course on industrial programming and in the course on education planning. In addition a course on manpower planning was held in June and July, in co-operation with the I.L.O.

Project preparation and evaluation

Now that development plans have entered the stage of execution in a number of countries in the region, it has become clear that more projects must be prepared, on the basis of more ample background material than at present, and with due regard for the economic aspects. This problem has repercussions on important questions of an institutional nature, which call for special consideration within the over-all framework of planning activities. Within the more restricted sphere of the preparation and evaluation of projects, efforts must be concentrated on two main forms of activity: assistance to Governments and help in training experts. The first

relates to the work of the advisory groups and the second to the Training Course.

In addition to the lectures and seminars given to all participants during the first part of the Basic Course, instruction this year was expanded by the inclusion of seminars prepared for the special subjects of programming in the public sector and in the industrial and agricultural sectors.

These seminars had an essentially practical approach, and concentrated on the discussion of projects drawn from real life. More than twenty projects were discussed, covering electricity, transport, industry, marketing of agricultural products, and land settlement.

Another innovation in this field was the discussion of what are termed social projects. These raise problems of definitions and concepts that permit the preparation of projects in housing, health and education to be linked with the technique of programme budgeting. From the operative standpoint the problems concern not only definition, but also the setting up of machinery and institutional relations for formulating and evaluating projects and for controlling their execution.

Experience has shown the value of including in the advisory groups experts responsible for promoting and improving the preparation of projects and helping to evaluate them within the framework of the general programme. The Institute maintains contact with the activities in question and co-operates with the advisory groups on them.

In this field the following developments should be noted:

(a) In Uruguay the study covering the general diagnosis included a general list of investment initiatives that had reached various stages of progress. The Advisory Group is also working on the preparation of standard formulas for providing the essential minimum of information for projects in various sectors.

(b) In Paraguay a systematic study of the subject was begun, with the direct participation of an official of the Institute.

In 1964 the aim will be that each of the advisory groups includes a permanent general expert on projects, whose work will be essentially to promote, identify and prepare projects, and to organize working groups to carry out the necessary preliminary studies. These experts will work in close contact with the sectoral specialists in the advisory group concerned, without prejudice to the use of specialized project experts or consultant firms. The general project experts will in fact help to carry out preliminary studies that will make it easier to define the tasks of the specialists and will undoubtedly reduce the costs of feasibility studies.

The shortage of general project experts calls for a great effort in the training field. Apart from the provision of courses in 1964, as in 1963, the Institute's efforts will be centered mainly on revising and bringing up to date the Project Manual, with a view to publishing the revised version in 1964.

In addition, with the same aim of promoting project preparation, it is proposed to work out the organizational bases and content of special courses lasting six or eight weeks to be given in the various countries, and of semi-

tion of this type of project in the government sector. These activities were carried out mainly through the Training Programme, both in the Basic Course and in the intensive courses in Uruguay, Brazil and Central America, which included short courses on planning in the public sector.

As regards advisory services, the knowledge accumulated by the Institute was passed on to the advisory groups in Paraguay, Peru and Uruguay, and also to Colombia, where help is being given in reviewing the public investment plan for 1964-1967.

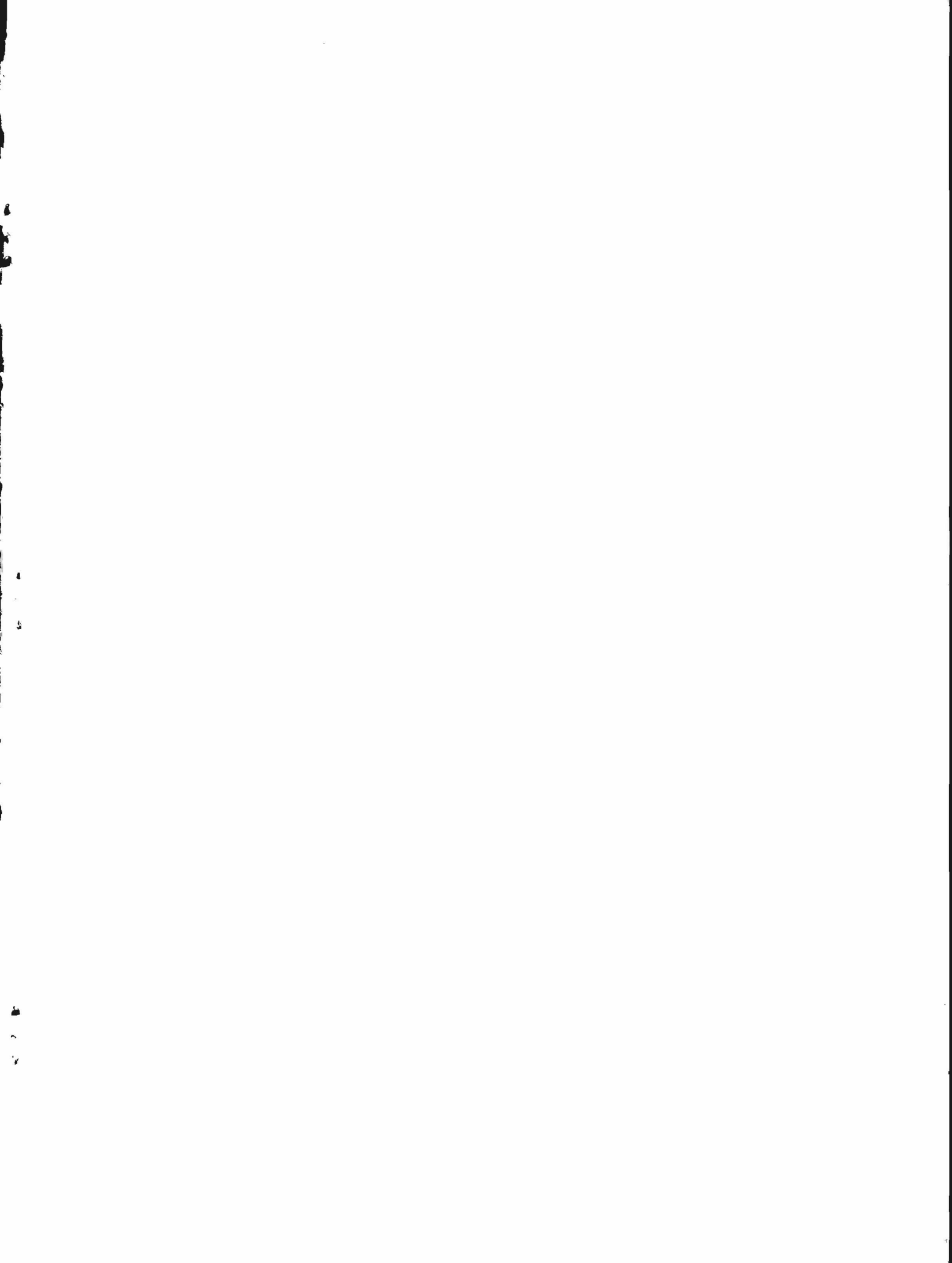
In 1963 activity in this field was mainly instructional and operational; in 1964 intensive research work will also be undertaken.

With regard to programme budgeting, considerable work was done in providing guidance and assistance to the advisory groups, and the Institute also co-operated with national organizations in other countries in the region. Advisory services were extended to Bolivia, Colombia, Costa Rica, Peru, Ecuador, Paraguay and Venezuela. This work includes not only the substantive aspects

of budget reform, but also the preparation of working manuals, review of methods and of programme control and accounts, extension of the system of programme budgeting to decentralized enterprises and public enterprises, and so forth.

In the field of short-term planning a series of problems arises relating mainly to making short-term plans consistent with medium and long-term plans. The research programme concerned, which is under way, is described in the report of the Director General to the third meeting of the Governing Council, and also in the Work Programme. The research begun in 1963 includes attempts to adapt to Latin American conditions short-term models and national economic budget outlines used in European countries.

In both the Basic Course and the intensive courses a study is made of possible methods of reconciling decisions of economic policy and important types of specific policy (fiscal, monetary, exchange, etc.), with the establishment and attainment of the goals of development plans.



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