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# NOTES ON PROBLEMS OF INDUSTRIAL PROGRAMMING

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/INTRODUCTION

## INTRODUCTION

The sole object of the present note is to indicate some of the points to which special attention may be devoted in the Seminar's discussions of the problems covered by the first part of the agenda, particularly those relating to over-all economic programming and the fomulation of industrial development programmes (A.I.1) and to structural changes in production and demand, import substitution and the promotion of exports (A.I.2).

As regards the first group, the background documents contain sufficiently detailed description of specific models and methods of programming for the economy in general and the manufacturing sector in particular, which there is no point in repeating in the text of the present note. Consequently, the substance of chapter I is confined to a few remarks on one of the broader issues with which those taking part in industrial programming are most concerned, namely, the relations between programming for the manufacturing sector and for the economy as a whole, the extent to which the former is dependent upon basic principles that can only emanate from the latter, and the possibilities and dangers of industrial programming divorced from an over-all programming effort.

For similar reasons, chapter II merely puts forward some of the main questions connected with the introduction of these structural changes in demand for manufactured goods and in industrial production which are inherent in economic development in general and the industrialization process in particular. The points raised relate to the obstacles which usually stand in the way of these changes, and to which careful attention should be devoted by those concerned with formulating industrialization policy.

One of the problems linked to such changes in the structure of production is that of import substitution, a topic that merits special comment, since it is of vital importance in the industrialization process of the under-developed countries. It is often discussed in relation to export prospects for manufactured goods. In this latter connexion, too, there are certain points that would be well worth discussing in the course of the Seminar, since the export trade in question undoubtedly constitutes one of the avenues open to industrialization in the developing countries.

/Chapter I

# Chapter I

## INDUSTRIAL PROGRAMMING IN RELATION TO OVER-ALL PROGRAMMING

### 1. Types of industrial development programme

Whatever the nature of a programme, it may be defined as the formulation of certain objectives and the suggestion of the measures required to put them into effect.

In relation to a manufacturing development programme, various types of objectives can be singled out. In the last analysis, however, they can be reduced in essence to output targets - including production levels, capacity and methods, with due regard to the real and financial resources required - and to ways and means of attaining these targets, comprising direct action on the part of the authorities in the fields of promotion and production, and measures of economic policy designed to enlist the co-operation of private entrepreneurs along lines conducive to the ends pursued.

This outline definition is applicable to the various types of development programme, including, where the manufacturing sector is concerned, programmes differentiated by their coverages and levels.

As regards coverage, partial programmes, relating to specific industries, are conceivable, and also integrated programmes for the whole of the sector. Again, programmes may be formulated at different levels of aggregation. An integrated programme may be kept at the level of any one of the twenty groups in which the United Nations classifies the manufacturing sector, or may move down to a particular industry or specific development project.

### 2. The problem of coverage

Irrespective of the question of levels of aggregation - or the degree of detail, to put it more graphically - the problem of coverage has one particularly important aspect, namely, how far economic development programming can be split up. In other words, discussion of it must be carried beyond the bounds of the manufacturing sector and related to the economy as a whole and to over-all development. What is more, it seems almost meaningless to confine such discussion within the limits of a sector that is so heterogeneous, from the technical, economic and social standpoints alike.

/This conclusion

This conclusion would seem to be based, in the last analysis, on recognition of the structural inter-relationships between the economic processes of production and demand, which have their origin in technological production relationships and in the functional interdependence of demand and the income levels of the population.

Strictly speaking, these inter-relationships suggest that it is inexpedient to split up the programming of economic development in general and of industrial development in particular. With due regard, however, to the soundness of this conclusion, it should perhaps be acknowledged that in practice the problem is one of proportions and objectives.

For instance, it may reasonably be supposed that the preparation of a project for a small local footwear factory will raise no major questions of coverage. On the other hand, it would be inadmissible from every point of view to tackle the problem of a branch of artisan industry employing 10 per cent of a country's labour force in terms of productivity alone, without taking into account the over-all problems of employment and development.

Similarly, if the programme in question relates to the installation or improvement of the entire footwear industry, the limited field of this industry and its market is most unlikely to afford an adequate basis for decisions on several of the fundamental questions that are bound to arise, including technological problems concerning the proportions in which the various factors of production should be used.

But will an over-all programme be required, or will a more or less schematic frame of reference suffice for the solution of such problems as these?

The reply may depend upon the magnitude of the development problems encountered and on how far it has been decided to tackle them. If so, the question at issue is whether a partial approach is or is not satisfactory, or in what conditions it might become so, supposing it to be based only on an outline of over-all prospects and/or those relating to the most direct contacts between the activity under consideration and the economic and social environment.

/3. The

## 3. The need for over-all programming

The urgent need for the programming of economic development derives from the inadequacy of the trends registered in respect of the rate and continuity of growth and the distribution of the resulting benefits. The main obstacles generally recognized are of a structural type, and include those relating to the combinations in which the factors of production are found. Manpower surpluses and an abundance of natural resources often exist alongside a shortage of capital and a scanty or erratic supply of foreign exchange.

In so far as situations of this kind exist, industrial programming can hardly be allowed to ignore them. And the only way to take them into account is by basing decisions as to technological alternatives and the allocation of resources on over-all objectives and criteria; which, in turn, cannot be achieved through an approach confined to the manufacturing sector or any of its specific activities, but only through integrated programming efforts.

## 4. Objectives

The first restriction on the freedom of movement of industrial programming derives from over-all economic development targets.

The commonest of these, at the most general level, are usually objectives relating to the rate and continuity of income growth and to the distribution of income.

But such objectives may be of negligible significance if they are not accompanied by fuller details and by the formulation of a development "strategy": details, with regard to the specific targets to be mentioned shortly; strategy, in respect of geographical decentralization, the development of backward areas, the control of monopolies, employment, external vulnerability, integration in respect of regional markets, self-sufficiency as regards basic materials, and so forth. How are such issues to be approached and such a multiplicity of objectives reconciled without an over-all conception of development?

/It must

It must be acknowledged that in such matters the role of the manufacturing sector is supremely important. Suffice it to reflect, for example, on the subject of external vulnerability, conditioned as it is by the diversification of exports - in which manufactures may play an important part - and by the national integration of industrial activities through import substitution in respect of intermediate and capital goods.

But it is not only at this level that there is a recognized interdependence between industrial and over-all programming. It also exists at the level of more precise objectives relating to the rate of growth of income, where it is determined by the fact that the industrialization process is inseparably bound up with over-all economic development, and by the dynamic role incumbent on the manufacturing sector, or at any rate on the import substitution and, possibly, the export industries.

Again, income distribution also constitutes a fairly close bond of union. Thus, certain explicit income redistribution objectives directly affect demand for consumer manufactures , the influence of which on industrial expansion is quantitatively significant.

A specific income distribution policy dictates guiding principles for industrial development, which, furthermore, have repercussions on employment and capital requirements, since, for example, "light" industries producing current consumer goods make more intensive use of labour than of capital.

## 5. Alternatives in respect of technology and allocation of resources

The other link between programming for the industrial sector and over-all planning efforts relates to criteria for the adoption of decisions on technological alternatives and on the installation of new industries.

The technological questions are largely concerned with the proportion of resources required for the production of one and the same good. Alternative possibilities for the installation of industries are associated mainly with import substitution and the export trade.

/The resources

The resources to which particularly careful consideration should be given are capital, foreign exchange and labour. Of these, the first two are in relatively short supply in the under-developed countries, whereas manpower, at any rate unskilled labour, is plentiful.

There is, of course, a supply problem in respect of such resources which cannot be evaluated within the narrow framework of a single activity. Total demand for capital, foreign exchange and labour must be taken into account.

On the one hand, there are market restrictions, which clearly transcend the bounds of the manufacturing sector. On the other, there are restrictions deriving from demand for resources and the supplies available, which again cannot be assessed with reference to industry alone.

Evaluation criteria for the selection of techniques make allowance for the extent to which the various resources are plentiful or in short supply.

The criteria applied may be of a partial and ad hoc nature. They measure the "gain" per unit of resources in short supply. The best programme will be one which is consistent (ensuring the balance of supply and demand), viable (from the standpoint of the measures and action which its implementation entails) and efficient, i.e., conducive to acquisition of the maximum gain - or gains - on the basis of the available resources, one requisite for which will be total and simultaneous utilization of the resources in question or, at least, minimum use of those in short supply and maximum use of those which are plentiful. The process whereby the optimum programme is arrived at will be a series of approximations.

Alternatively, its formulation may be based on a model whereby the optimum can be automatically reached, given all the existing limitations and the corresponding criteria, such as maximization of certain benefits - relating to income, for example, and favourable repercussions on the balance of payments - or minimization of the use of resources in short supply, such as capital.

Formally or informally, the shadow prices of products and resources are implicit in an approach of this kind. The social benefits and sacrifices

/involved - which

involved - which in the last analysis any economic and social development programme must aim at evaluating - are not necessarily accurately reflected if they are weighted with market prices, owing to the obvious shortcomings of the market for goods produced and factors of production.

But calculation of the shadow prices of these factors entails, inter alia, an estimate of probable demand and total available supplies in the future. If these over-all prospects are unknown, a proper approach to the problem of industrial development alternatives will be impossible.

Certainly, there are ways and means of roughly computing shadow prices - by eliminating indirect taxation and subsidies from market prices, by considering the indirect effects of alternatives and by valuing resources at approximate opportunity costs.

Needless to say, a programme drawn up on the basis of shadow prices is meaningful only if possible discrepancies between its results and those obtained with the financial criteria of private enterprise are susceptible of solution by appropriate measures and action on the part of the authorities. Otherwise, the programme will be nothing but an academic exercise. Moreover, the idea of Government intervention in the economic process is implicit in all concern for programming, since it derives precisely from the recognition that the trends and situations registered are unsatisfactory.

## 6. Consistency

The requisite of consistency relates to the balance between real supply and real demand. The problem derives from the technological and functional inter-relationships of the economic process, as previously pointed out.

Thus, every activity has direct and indirect relations with the economic environment and its development, which are generally given formal expression in input-output tables.

This is one of the arguments supporting the idea of industrial programming as an integral part of over-all programmes, since there is no other way of testing the compatibility of considerations relating to individual sectors, industries or projects. This of course becomes the more important, the more resolute is the intention to alter the unsatisfactory

/trends registered

trends registered in economic and social development in the past, for such an aim invalidates evaluations of compatibility based on mere extrapolations of variables or activities allied to the industry to which the programme relates.

Again, the need to take over-all considerations into account is greater in the more highly diversified economies, where the alternative possibilities for the allocation of resources are more numerous and more open to question. Nevertheless, in such economies it would seem admissible to attach less weight to the problems of compatibility of targets (supply and demand), since the regulatory mechanisms that operate automatically are more effective. But, on the other hand, in less diversified economies - not so highly industrialized, and with fewer inter-relationships among manufacturing sectors and branches of industry - the significance of inter-sectoral and inter-industrial relations is considered to be less. In that event, more emphasis might legitimately be placed on specific industries and individual projects. As the industrialization process advances, however, the production of intermediate and even of capital goods assumes greater significance, and the interdependence of economic activities increases, especially within manufacturing industry itself. So, although it is possible to rely, up to a point, on the mechanisms for automatic regulation deriving from a higher degree of diversification (such as the existence of under-utilized capacity the adaptability of certain plant to the production of other goods and the availability of entrepreneurial talent), it is equally true that the explicit analysis of inter-industrial relationships, in formal terms, or at least by means of partial balances, acquires increased importance.

In any event, this discussion is in the main of a purely methodological nature. On the side of technological consistency, there is no possibility whatever of obviating the need to envisage industrial programming within an over-all framework.

Again, there is the question of the functional relations between demand and the income levels of the population.

The growth of demand accounts for a considerable proportion of industrial expansion. Thus, when income rises slowly, industrial development cannot be

/rapid. Furthermore,

rapid. Furthermore, there are certain sectors of the economy - usually agriculture - which retard industrial development, partly because a large proportion of low-productivity workers constitutes a very limited market for manufactured goods, and partly because agriculture seldom reacts adequately to demand on the part of urban workers, especially those employed in the manufacturing sector, whose high productivity permits better wages and a substantial demand for foodstuffs.

Obviously, in these circumstances, industrialization will find its course obstructed by a barrier that can be surmounted only with the aid of an over-all development policy.

## 7. Rational instances of partial programming

It is conceivable, however, that the manufacturing sector itself, or one of its branches, may constitute the obstacle to over-all economic growth, or that, at any rate, there may be objectives or prospects whose attainment or exploitation would be an obvious necessity in any event. In cases of this kind, the rationality of partial approaches to such obstacles, objectives and prospects is undeniable, especially if no higher decision to study an over-all programme has been adopted.

Manufacturing industry may put significant obstacles in the way of over-all development. These may be connected for example, with market shortcomings in the shape of monopolies, which cramp the flexibility of industry's response to the demand generated by other activities. Instances of manifest inefficiency may also arise.

The obviously desirable objectives and prospects may include, for example, those connected with external vulnerability, in relation to which certain possibilities in the field of exports and/or integration at the national level may be clearly discernible.

## 8. Employment

In this context, it is important to introduce the topic of industrial and over-all programming in relation to employment; this latter is one of the major problems in most of the Latin American countries, and concern for it is consequently implicit in the most vitally important objectives of economic and social development.

/The characteristic

The characteristic features of the problem are often a high level of unemployment - at least disguised -; a rapid expansion of the labour force; and an urbanization process which is usually unaccompanied by the development of urban activities at a pace adjusted to the labour supply. In face of this situation, the manpower absorption capacity of manufacturing industry is usually low, and sometimes negligible, in relation to the total magnitude of the employment problem.

In this connexion, there are three questions to be considered: the rate of expansion of manufacturing activities; technology in relation to the combination of capital and labour; and the channelling of industrial development.

The question of the rate of expansion is obviously related to overall programming.

The same is true of technological issues, as was indicated in earlier paragraphs.

The channelling of development is linked, on the one hand, to alternative possibilities for the allocation of resources, given specific market characteristics. But, on the other hand, modification of the structure of market demand is also a possibility to be considered, in consequence of the alternatives presenting themselves in other activities, and, particularly, of those arising in connexion with income distribution. It has already been pointed out that the progressive redistribution of income is reflected in a greater demand for current consumer manufactures, produced by light industries which are more labour-intensive than others. But, once again, it is useless to discuss questions of income distribution within the narrow framework of industrial programming.

## 9. Programming levels

It was noted elsewhere that industrial programming can be at various levels, that is, at different degress of aggregation, from industrial branches to specific projects.

The problem then arises of what is the most appropriate level in each case. When a programme relates to the whole of the manufacturing sector,

/the best

the best solution is likely to be a combination of levels that differ according to the various industries. This approach is justified because of the heterogeneous nature of this sector, the limited possibility it provides for the State to take specific measures and/or undertake direct promotional action and/or investment and production, and to the limited resources available for detailed studies.

In any case, this confronts the programmer with a problem of priority, in deciding which industries deserve detailed study and which must be relegated to consideration at a higher level of aggregation.

The determination of levels is undoubtedly influenced by the structure of the economy. Thus in any economy with a sound market detailed decisions can be left to the entrepreneurs, whereas where market conditions are less satisfactory and the economy is not very diversified, it will be important to consider in detail as many industries as possible. The latter course will naturally only be justified if the measures and actions aimed at implementing the programme are sufficiently specific.

/Chapter II

## Chapter II

## STRUCTURAL CHANGES IN DEMAND AND PRODUCTION, IMPORT SUBSTITUTION AND MANUFACTURING EXPORTS

One of the main reasons why programming is increasingly urgent and important is that development does not mean a general and uniform increase in current levels of production, but rather a process of change and considerable structural modifications.

One of the most characteristic of forms of such modification is an industrial growth rate that is higher than the growth rate for the economy as a whole, leading to a steady increase in the relative importance of the manufacturing sector compared with most of the other sectors of economic activity. This is in fact what is meant by the expresion "process of industrialization".

In addition, structural changes are not confined to an increase in the relative importance of industry in the economy as a whole, but also include changes within the industrial sector itself. The important changes that development imposes on the internal structure of the sector are indicated by such features as disparate growth rates in the various component branches, the permanent addition of new lines of manufacturing, and a dynamic development in some industries compared with a vegetative type of growth in others.

Development programming largely amounts to anticipating the extent and direction of these changes. Such anticipation is also essential for the task of defining an economic policy, and for sectoral purposes an industrial policy, that will contribute both to removing the obstacles that will undoubtedly be found to exist, and to intensifying the incentives needed to ensure that such changes can take place with the speed and vigour requires by the general aims of econocic and social development.

Consequently it is essential that in the process of formulating the programmes concerned more emphasis should be given to the basic factors that determine the imperativeness of these structural changes, whether these are factors "induced" by the development process itself, or "autonomous" factors, including those deriving from basic political and economic decisions.

/1. Structural

## 1. Structural changes in demand

One of the basic factors in industrialization, and in economic development, is the bahaviour of the demand for manufactured goods.

For this purpose internal demand should be distinguished from exports, although thus far the latter have had no great significance in the industrial development of the currently under-developed countries.

The behaviour of the demand for manufactured goods for final consumption affects the industrialization process because goods of industrial origin taken as a whole, as well as most of the individual items, have an income or consumption elasticity of demand greater than unity. The reasons for this are well known.

The behaviour of the demand for capital and intermediate goods also affects the industrialization process. The demand for capital goods originates in the need for replacements, arising from physical wear and tear and obsolescence, and in the need to increase production capacity in the various economic sectors. In general the significance of this demands is not great in under-developed countries, since many manufactured capital goods are imported, especially machinery and equipment. However, the demand for capital goods contributes to the industrialization process, to a certain extent from the time when the structural changes involved in economic development bring about increased growth in the sectors that use relatively more capital, as in the manufacturing industry. In addition the expansion of the demand for capital goods may permit the substitution of certain imports by domestic production, which is difficult in a smaller market.

The demand for manufactures for intermediate use grows as a function of the output of the user industries, of which the manufacturing sector is the most important. This helps to explain why the demand for intermediate goods grows more rapidly relative to the economy as a whole, which is thus also a result of the structural changes in favour of manufacturing.

One of the most important points in connexion with the behaviour of the demand for manufactured capital and intermediate goods relates to technological innovations. The latter, which are an integral part of

/economic development

economic development, result in most cases in a rise in the demand for manufactured capital and intermediate goods over and above that required to maintain or increase production capacity and the output levels of the various activities. This is because technological innovations nearly always involve a better use of machinery and equipment - of which an obvious example is the absorption of artisan activities by manufacturing proper - and often the replacement of equipment before the end of its useful life. Furthermore, many technological advances give rise to longer production series (as in the synthetics clothing industry) or to more intensive use of intermediate manufactured products (for example fertilizers in agriculture). In this case too the expansion of the market naturally helps to make certain substitutions possible.

Lastly, among the factors relating to the effect of demand on the industrialization process mention should be made of the part played by manufacturing exports. As already indicated, exports have not made any great contribution to industrialization in countires in the course of development. Nevertheless exports may play a greater role in the industrial expansion of these countries, both directly and indirectly, as a result of the dynamic effects of economies of scale and of contributions to the balance of payments.

## 2. Import substitutions

Another factor in industrialization is import substitution, which involves not only production of what was formerly imported, but also, at least in part, the creation of additional derived demand for capital and intermediate goods of domestic origin. In addition, the introduction of the manufacture of a new product often results in a greater output than the volume of output replaced. This may happen, for example, when the product in question is one for which the demand connot be fully met from abroad because of difficulties relating to the capacity to import.

Import substitutions, together with technological innovations, are usually classified as activities resulting from "autonomous" decisions, which are independent of changes in demand, in contrast to activities

/that derive

that derive from decisions resulting from increases in demand, or "induced" decisions. Although these concepts are useful, it is as well to recognize that import substitutions are in part induced, to an extent that depends on the size of the market and on the comparative advantages derived from external economies that accompany economic development. Nevertheless, it should be pointed out that the bulk of import substitutions effected by Latin American countries have been directly due to "autonomous" decisions to adopt protective measures, often as a result of difficulties in importing.

### 3. Structural changes in manufacturing production

Just as economic development brings in its train structural changes in production in favour of the manufacturing sector, industrialization also involves important internal structural changes.

Such internal changes result from a behaviour of demand that varies according to the different manufactures, from the import substitution process, and also from any role that manufacturing exports may play.

In evaluating the effect of these factors, a distinction must be made between the "vegetative" and "dynamic" industries. The first, which generally produce non-durable consumer goods, have in Latin America largely exhausted the import substitution market, and thus further development depends essentially on demand. The dynamic industries, with a much more rapid growth rate, maintain their expansion largely on import substitution, and the reason for their rapid growth is usually that the demand for their products is also dynamic.

The dynamic industries are generally those producing intermediate and capital goods, and their progress in the field of import substitution has lagged behind that of the industries producing consumer goods, especially non-durable goods. Rapid growth in the consumer goods industries, is to be expected during the first stages of industrial development.

The development of the dynamic industries can be regarded as involving a process of national integration, with a beneficial effect on external vulnerability. But at the same time it must be recognized that manufacturing exports, by diversifying foreign trade, can also contribute to reducing external vulnerability.

/The typical

The typical model of industrialization is characterized by a rapid relative growth in the production of manufactured capital goods, a less marked growth in intermediate products, and a relatively slow growth in the production of durable consumer goods.

The vigour with which this process takes place naturally depends on a number of factors, of which change in income structure may acquire particular significance in the near future. A real process of progressive redistribution of income, especially if it affected the rural masses, would have a strong effect on the characteristics of the demand for manufactured goods, and might even, at least during the transition period, bring about a highly dynamic type of activity in industrial branches that are generally regarded as traditional and "vegetative".

4. Obstacles to structural changes in manufacturing

If account is to be taken of the structural changes in manufacturing entailed by economic development (outlined above), it follows that industrial policy should make it possible for these changes to take place smoothly. If this is accepted, it is important, in formulating appropriate measures, to assess the obstacles in the way of these changes, and a brief reference will be made to some of these obstacles.

Firstly, there is the financial problem of transferring resources to the development of new industries. If external contributions are left out of account, these resources must necessarily come from the traditional branches. But such a transfer of resources is usually hampered by the shortcomings of the capital market. Not only is this market very limited in most under-developed countries, but it has a poor reputation due to unproductive investments and the flourishing of speculative transactions, which undermine the investor's confidence. In some cases a depressed or inflationary economy discourages any investment in new securities.

This makes it necessary to consider improving the regulations for limited companies, establishing State and private financial institutes and corporations, promoting "good" projects, and attacking stability problems on the basis of a general policy of economic development.

/The difficulty

The difficulty of transferring resources is often associated with the reluctance of entrepreneurs to undertake activities outside their traditional field. There are endless examples in Latin America of industrial stagnation, even in areas that were formerly flourishing, as a result of cherished traditions in certain activities. It goes without saying that such an attitude is not universal, since if it were, the considerable industrialization that has taken place in some Latin American countries would have been impossible. Nevertheless this is an obvious handicap, and the attempt to remove it must involve: (i) making know the opportunities for good investment; (ii) direct promotion in the form of technical assistance and the financing and preparation of projects, (iii) direct State intervention in certain ventures involving high risk, serious financial problems, or technical complexities, etc., and (iv) the taking of incentive measures as regards return on investment.

In this connexion the level of technical education may be a contributing factor in arousing misgivings about new fields of activity. This is related to another important obstacle that often hampers structural changes in manufacturing, namely, the lack of the new skills required at all levels of the labour force, from managers and engineers to foremen and skilled workers.

The problem of manpower training is so serious that often skilled manpower is regarded as a scarce resource, like capital, and this gives rise to restrictions on industrial programming and influences the selection of techniques and the allocation of resources.

Hence special importance attaches to a policy for training the manpower required by the structural changes entailed by economic development. But such a policy cannot, of course, be undertaken in the absence of a general picture of the requirements in question, and this, in turn, makes clear the need for general views on economic development.

In some cases the shortage of skilled manpower at certain levels is related to the attitude of the traditional entrepreneur; taking a narrow view of costs, and facing little competition, he does not feel the need to call on the proper technical services or employ skilled workers. This

/usually has

usually has the effect of discouraging entry into the technical professions and the acquiring of experience by technicians and workers. Difficulties in acquiring experience are sometines directly due to managerial decisions to dismiss the senior workers, who are paid more because of their seniority and because of labour regulations relating to social security and other matters; the result is a high labour turnover.

Labour policy naturally also has a powerful influence on the availability and creation of skills.

Mention must also be made, in this brief outline of some important obstacles to structural changes in manufacturing, of certain striking aspects of protectionist policy that affect the extent and direction of the import substitution process.

The first point relates to the degree of protection, that is, whether it is inadequate or excessive. To ensure that the level of protection is the most suitable requires fairly detailed studies of costs, and consideration of the need for a proper degree of external competition, which in some cases takes the place of internal competition, often very limited because of the smallness of the market in relation to scales of production.

The other problem relating to protectionist policy is that of orientation, since it must be made quite clear what substitution activities should be promoted. This involves choosing between alternatives, and should take account of the possibilities of export manufactures, in accordance with the observations in the preceding chapter. In that chapter it was maintained that, save in exceptional cases, no sound solution could be found if the problem was not viewed in general terms, which involves going beyond the manufacturing sector. Here another problem arises, relating to whether in fact there exist any fully studied alternatives for substitution and export, that can be evaluated or introduced into a formal model. If not, this constitutes another obstacle to industrial programming (often aggravated by the lack of sufficient technical ability in the country to undertake the required studies) and in particular to a sound design for a protectionist policy, which usually calls for a high degree of specific detail.

/The third

The third problem as regards a policy of import substitution that should be mentioned relates to its flexibility. The structural changes involved in industrialization make a periodic review of protection policy necessary, since if the latter is maintained unchanged for a long period it will in fact become one more obstacle to such changes.

## 5. Import substitution and exports

It is commonly found that industrial development policy, whether explicitly formulated or not, tends to stress import substitution. This approach is induced by balance of payments problems and by the fact that it is easier to tackle the problem from this angle. This is true of some of the industrial development programmes formulated by Latin American countries.

There is a wide range of explanations for the fact that it is easier to substitute imports of manufactured goods; however it may be preferable to consider the question from the standpoint of export problems, which may explain the small contribution that exports have made to industrial development in such countries as those in Latin America, in circumstances where it might be imagined that it would be better to export than to undertake certain import substitutions.

The difficulties attendant on exporting include those relating to the structural inefficiency of industry in most under-developed countries, deriving from lack of skills, inadequate scales of production, external diseconomies, the comparative lack of competition, etc. Similarly difficulties have arisen because of the failure to provide incentives (here the preference has undoubtedly been given to import substitutions, by means of tariffs), and the lack of proper financial and commercial systems. Another unfavourable influence is that many entrepreneurs persist in regarding the export business as an unattainable goal, and prefer to confine their efforts to the domestic market, where they find fewer risks, high protective tariffs and little competition.

Indiscriminate protective tariffs and the lack of measures to promote exports usually result in an industrial development that does not follow the optimum course, and fails to take advantage of the comparative advantages offered by certain types of export production.

/Moreover lack

Moreover lack of discrimination gives rise to problems of price and quality, to stationary productivity levels, and to the development of industries that can hardly be properly absorbed by the economy before even more industries are introduced. This applies, for example, to many of the metallurgical and metal-transforming industries, which are often on a large scale and highly diversified, but inefficient, with low machinery utilization coefficients, and whose existence is generally hazardous.

In sum, a sound import substitution policy cannot exclude concern with exports, within a framework of general ideas that, as explained in the preceding chapter, are not confined to the manufacturing sector.

Another point that must be borne in mind is that the question of import substitution and exports is also related to general policy on foreign trade, of which one very topical aspect is the integration of regional markets. The interest in integration in Latin America has been largely based on the belief that the balance between benefits and sacrifices implied in establishing integrated markets would be favourable both for the economy of Latin America as a whole and for each of the member countries. The benefits would result essentially from economies of scale, specialization, exploitation of comparative advantages, a more competitive atmosphere and greater diversification of foreign trade for all the countries concerned, especially as regards exports. The hoped-for benefits are increased stability, greater efficiency and more dynamic growth of the existing activities that face international competition, and the substitution of imports from outside the area in terms of lower social costs. These benefits will contribute to a more dynamic and sustained economic growth.

Industrial development programmes will naturally have to devote more emphasis to such possibilities, and will also have to take account of the transitional sacrifices that are unavoidable at the national level in integration schemes, with respect to activities that at present operate at a low level of efficiency.