

ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN

**CHANGING PRODUCTION PATTERNS
WITH SOCIAL EQUITY**

The prime task of Latin American and Caribbean
development in the 1990s



UNITED NATIONS

ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN

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CONTENTS

	<i>Page</i>
FOREWORD	9
I. INTRODUCTION AND SUMMARY	11
II. THE STARTING POINT: RECENT EVOLUTION AND CURRENT SITUATION OF THE LATIN AMERICAN AND CARIBBEAN ECONOMIES	19
a) The slowdown in economic growth	22
b) Persistent macroeconomic imbalances	25
c) The regressive nature of adjustment and the deteriorating social situation ...	33
d) Weakening of the public sector	35
e) The steep decline in investment	35
III. THE MAIN CONDITIONS FOR CHANGING PRODUCTION PATTERNS WITH SOCIAL EQUITY	39
A. THE INTERNATIONAL ENVIRONMENT	39
1. The external environment and the economic evolution of Latin America and the Caribbean	39
2. Structural aspects of international trade and the Latin American and Caribbean position	41
3. Basic commodities in the exports of Latin America and the Caribbean	42
4. Protectionism as a tax on changing production patterns	42
5. The main challenges in the area of international finances and the external debt problem	43
6. Foreign direct investment and access to technology	45
B. THE MACROECONOMIC BALANCES	45
1. Making full use of the margin for expansion of the product	47
2. Exports and investment as two key factors	48
C. DEVELOPMENT FINANCING	49
1. The external contribution to development financing	49
2. Public saving	51
3. Private saving	53
D. THE SUPPORT OF THE SOCIAL AGENTS FOR CHANGING PRODUCTION PATTERNS WITH SOCIAL EQUITY	54
1. The socio-political framework	55
2. The social agents	56
3. The demands of social groups and their support for the process of change	58

	<i>Page</i>
IV. CHANGING PRODUCTION PATTERNS WITH SOCIAL EQUITY: BASES AND DILEMMAS	61
A. BASES FOR CHANGES IN PRODUCTION WITH SOCIAL EQUITY	61
1. The imperative of changing production patterns with equity	61
2. The integral character of changes in production patterns	71
3. Competitiveness, technical progress and growth	75
4. Changes in production patterns, growth and equity	77
B. CHANGING PRODUCTION PATTERNS: SOME DILEMMAS	81
1. Linkages between the internal and external markets	82
2. Linkages within the production system	88
3. The interaction of public and private agents	94
V. SOME BASIC POLICY LINES	97
A. SPECIFIC NATIONAL CHARACTERISTICS	97
B. SUPPORT FOR GENUINE COMPETITIVENESS	103
1. Trade and exchange rate policy	103
2. Technological policy	107
3. Manpower training	117
4. Creation of enterprises	122
C. STRENGTHENING PRODUCTION LINKAGES	124
1. Industrial policy proposals	124
2. Agriculture and production linkages	126
3. Natural resources and linkages with production	134
4. Basic support services and production linkages	137
5. The financial system and changes in production patterns	143
D. INTERACTION BETWEEN PUBLIC AND PRIVATE AGENTS	149
1. General principles	149
2. Fields of interaction	152
3. Organization of production	153
VI. CHANGING PRODUCTION PATTERNS AND ECONOMIC INTEGRATION	157
A. THE SCOPE OF INTEGRATION IN THE CONTEXT OF THE 1990s ...	157
B. SOME POLICY GUIDELINES	160
1. International insertion and liberalization of intraregional trade	160

	<i>Page</i>
2. Support for international competitiveness and production linkages ..	164
3. Strengthening the institutional base of integration	170
ANNEX Source of the information contained in the boxes	173

LIST OF BOXES

IV.1	Brazilian Aircraft Corporation (EMBRAER)	69
IV.2	Colombia: flower exports	70
IV.3	Technology parks in Brazil: three encouraging cases	72
IV.4	The Electrical Research Institute of Mexico	73
IV.5	Chile: modernization of agriculture and the export boom	74
IV.6	Argentina: Micro Sistemas S.A.	76
IV.7	Poultry production complexes in Brazil	77
IV.8	Trade liberalization and industrial restructuring in Chile	85
IV.9	Industrial restructuring and opening in Brazil	86
IV.10	Brazil: computerization of banking activities	89
IV.11	Orange juice production in Brazil	92
IV.12	The forming of an agro-industrial export complex: the case of CONAPROLE in Uruguay	93
V.1	Ceramics in Uruguay	102
V.2	The Venezuelan trade régime	104
V.3	Incentives for non-traditional exports in Costa Rica	106
V.4	Shrimp cultivation in Ecuador	108
V.5	Biotechnology in Cuba	109
V.6	Technological Innovation Centre (CIT) (Mexico)	111
V.7	AGROCERES	112
V.8	Institutional innovation: the Corporation for the Technological Development of Capital Goods (Chile)	114
V.9	The National Institute for Agricultural Technology (INTA) and new methods for producing hybrids in Argentina	115
V.10	New technologies in education	119
V.11	Recent initiatives in professional training institutions in Latin America ..	121
V.12	Instruments for linking industry with the natural resources sectors	126
V.13	The export boom in the Mexican motor vehicle industry	129
V.14	Guatemala: non-traditional exports from an area of small farms	133
V.15	The insufficiency of market mechanisms: the case of natural resource management in Chile	136
V.16	Chile: cost reduction and port management	140
V.17	The financial system of the Dominican Republic in the 1980s	145
V.18	The expansion of Chilean exports and the role of the Production Development Corporation	150
V.19	Small-scale metalworking industry in Peru	156
VI.1	Uruguay's bilateral integration agreements	159
VI.2	An attempt to boost integration: the bilateral agreement between Argentina and Brazil	161
VI.3	Trade facilitation among the Southern Cone countries	165
VI.4	Education in the Caribbean: an example of subregional co-operation ...	167

	<i>Page</i>
VI.5	Recent programmes for co-operation in the field of science and technology in the European Community 169
VI.6.	The Latin American Association of Capital Goods Industries (ALABIC) 171

TABLES

II.1	Latin America and the Caribbean: per capita gross domestic product ... 20
II.2	Latin America and the Caribbean: price indexes of main commodity exports, 1981-1989 23
II.3	Latin America and the Caribbean: intraregional exports 26
II.4	Latin America and the Caribbean: evolution of consumer prices 28
II.5	Latin America: investment coefficient 36
III.1	Latin America: growth, inflation and external imbalances, 1950-1988 ... 46
IV.1	Latin America and reference group: strategic indicators 62
IV.2	Comparisons of selected indicators in the field of science and technology 64
IV.3	Specific objectives: simplified scheme 83

FIGURES

II.1	Latin America and the Caribbean: per capita gross domestic product ... 22
II.2	Latin America and the Caribbean: per capita gross domestic product and export prices 24
II.3	Latin America and the Caribbean: evolution of steel consumption, 1970-1987 27
II.4	Latin America and the Caribbean: macroeconomic indicators 29
II.5	Brazil and Mexico: macroeconomic indicators 30
II.6	Argentina and Chile: macroeconomic indicators 31
II.7	Colombia and Venezuela: macroeconomic indicators 32
II.8	Costa Rica: macroeconomic indicators 33
II.9	Latin America: gross fixed capital investment as a percentage of the gross domestic product 37
IV.1	Latin America, reference group and OECD: comparative levels of productivity, 1950-1985 63
IV.2	Latin America, reference group and industrialized countries: export coefficients, 1929-1986 65
IV.3	Latin America and the Caribbean, reference group and industrialized countries: export structures, 1962-1985 66
IV.4	Latin America: asymmetrical international insertion, 1962-1985 67

FOREWORD

In this document, the ECLAC Secretariat has sought to present a synthesized study of the main lessons left by the economic crisis of the 1980s. On this basis, it presents a proposal, for consideration of member States' governments, for the development of the Latin American and Caribbean countries for the 1990s and beyond. This proposal revolves around what is considered to be the primary and common task of all the countries: *the transformation of the productive structures of the region in a context of progressively greater social equity*. Such a process is intended to create new sources of dynamism which will, in turn, make it possible to achieve some of the objectives inherent in a contemporary conception of development: growth, improvement of income distribution, consolidation of the democratization process, greater autonomy, establishment of conditions which will halt the deterioration of the environment, and improvement of the quality of life of the entire population.

It should be noted, however, that the proposal does not pretend to offer a single, universally applicable recipe: rather, it consists of a set of guidelines which must, of course, be adapted to the particular situations of the individual countries.

The study is set out in six chapters. The first chapter presents an introduction and summary of the main ideas contained in the document. The second analyses the initial setting, noting that there has been a slowing down of growth, macroeconomic disequilibria, a regressive adjustment process, weakening of the public sector, and a decline in investment. The third chapter then analyses some of the factors conditioning the transformation of the productive structure: the international

environment, macroeconomic equilibria, the availability of development financing, and the support of diverse actors of societies. The fourth chapter goes on to set forth the main features of changing production patterns with social equity, together with some of the dilemmas that the process will be faced with.

On the basis of what has been covered in the preceding chapters, chapter five outlines some basic policies which would facilitate the desired changes in production patterns. After analysing the subject of specific national features, it deals with policies designed to support true competitiveness, to strengthen production linkages, and to improve interaction between public and private agents. Finally, chapter six deals with the contribution that economic integration could make to the process of change in production patterns and proposes some policies in the areas interacting with the international economy, promoting production linkages, and strengthening the institutional foundation of integration.

This study is based on the rich and varied lessons learnt during the 1980s, both within and outside the region, and on the analysis of concrete experiences, some of which are briefly described in boxes in order to illustrate the proposed policy outlines. Like every undertaking of this scale, the document forms part of a broader and deeper process. Thus, it not only contains the general thrust of a proposal, but also sketches the broad priorities of the future work programme of the Secretariat. Ultimately, this study and future activities which will stem from it seek to contribute to the present and future debate in the region, as it approaches the twenty-first century, on how to achieve sustained development.

I. INTRODUCTION AND SUMMARY

a) *The starting point*

The development experience of Latin America and the Caribbean in the 1980s has already been thoroughly explored by the ECLAC Secretariat in numerous documents, which stress the setbacks suffered by the vast majority of the countries in the economic and social sphere. These setbacks can be better appreciated in the light of the progress achieved in previous decades and also, in the 1980s themselves, in the light of the progress made by other regions of the world, especially the industrialized member countries of the Organization for Economic Co-operation and Development (OECD) and various Southeast Asian countries.

The ECLAC documents referred to above used the expression "lost decade" to illustrate the magnitude of the setback suffered in terms of development. If measurement is limited to a global indicator such as the evolution of the per capita gross domestic product, this expression even falls short, for at the end of 1989 the real per capita product stood at the level, not of ten years earlier, but thirteen, and even more in some economies. Consequently, the countries of the region are entering the 1990s under the burden of the recessionary inertia of the 1980s, the heavy load of their external debt commitments and the fundamental lack of correspondence between the structures of international demand and the structures of Latin American and Caribbean exports.

Furthermore, the region continues to suffer from a number of serious shortcomings, including in particular unsolved macroeconomic disequilibria, the increasingly obsolete stock of capital goods and physical infrastructure (due to depressed levels of investment), a growing gap between the intensive technological changes taking place in

the world and their application in the region, the erosion of the financial and managerial capacity of governments, the frustration of an ever-increasing number of people who are trying to enter the work force, the misuse and destruction of natural resources, and the degradation of the environment.

The 1980s did not only witness setbacks, however. There were also advances: partial and sometimes shaky in the economic field, but substantial in the political sphere. In this respect, the 1980s was also a decade of "painful learning". In the politico-institutional field, many countries progressed towards pluralist and participative societies, and the end of the decade witnessed the progressive reduction of ideological considerations in the political and economic debate. This is reflected in the various forms that political and social consensus building have taken. At the level of intraregional relations, most of the rivalries between neighbouring countries became a thing of the past, being replaced in some cases by creative schemes of co-operation. In the economic field, it became abundantly clear that the region's asymmetrical participation in the international economy must be redressed; governments also became more aware of the importance of maintaining short-term macroeconomic equilibria and complementing them with sectoral policies to support the process of change. Efforts to take greater advantage of the potential offered by regional integration were redoubled, and substantial progress was made in overcoming false dilemmas regarding the relations between industry versus agriculture, the domestic versus the external markets, the State versus the private sector, and planning versus the market.

The by no means negligible economic changes which took place, even in the context of the frail performance of the region's

economies in the 1980s, were also part of the painful learning process. The heterogeneous performance of different areas of industrial activity was brought out, and the relative vitality of the agricultural sector was confirmed: also, in many countries the big urban concentrations suffered a heavier impact than smaller cities and rural areas. The export coefficient was raised in a wide range of activities, an increasing number of dynamic entrepreneurs emerged, and the coverage of certain social services, such as education, was maintained in spite of budgetary restrictions. The demand for certain kinds of goods and services continued to expand: home electricity consumption and the per capita availability of television receivers maintained their upward trend, in contrast with the regressive performance of aggregate economic indicators.

Thus, in the 1980s opposing trends existed side by side. In the institutional sphere, political interaction was strengthened, but public institutions were weakened. Adjustment had a very high social cost, especially for the middle-level and popular strata, but those who were most seriously affected often devised their own defence mechanisms. The economies were characterized by a generalized loss of dynamism and a marked deterioration in the levels of equity, but at the same time a process of adaptation to the changing circumstances began, and in the course of it many enterprises improved their international competitiveness, while there were many examples of creativity and originality.

In short, the 1980s represented, in historical terms, a turning point between the previous pattern of development of Latin America and the Caribbean and a phase which is not yet fully defined but will undoubtedly be different and which will mark the future development of the region. This lost decade of painful learning might parallel past periods which other nations have had to go through in all the successful cases of late industrialization. Perhaps this will prove to be the basis on which the region will be able to resume the path of growth, with different modalities regarding institutions and policies, and accompanied, this time, by a sustained effort to overcome shortcomings in the areas of equity and international competitiveness; all this within an environmentally sustainable

context. The purpose of this document is precisely to contribute to this task.

b) *The challenges of the 1990s*

Thus, as they enter upon the decade preceding the new millennium, Latin America and the Caribbean stand at a new crossroads. The challenge is none other than to find the path that leads to development: a path from which the countries seem to have gone astray in the turbulent decade which has just ended. The task of overcoming the crisis brings with it an extraordinary mass of demands. For example: on the one hand it is necessary to strengthen democracy, while on the other countries are called on to adjust their economies, stabilize them, bring them into a world of intensive technological change, modernize their public sectors, increase savings, improve income distribution, introduce more austere consumption patterns, and moreover do all this within the context of environmentally sustainable development.

Debilitated economies, societies and States can hardly tackle this mass of demands successfully without carefully weighing, in a climate of consensual mutual support, various kinds of options, priorities and sacrifices. Indeed, the task before them is so great and so complex that it would hardly be possible to tackle it from a single holistic perspective, especially in view of the enormous diversity of situations which exists in the region. There are, in addition, pressing immediate matters which have so far obliged the authorities to focus their attention on short-term economic policy to the detriment of longer-term projects and proposals, even though these may be essential in order to correct the existing imbalances: this happens to be the case, for example, regarding the balance of payments. In this respect – taking advantage of the longer time horizon offered by the beginning of the 1990s – this document stresses what it considers to be the prime common task of all the countries: *the transformation of the productive structures of the region in a context of growing social equity.*

c) *Some conditions for the transformation of the productive structures*

The direction and results of the domestic efforts to overcome the crisis will depend to a considerable extent on the external

environment, which will always decisively influence the performance of the economies of the region. Among the various elements conditioning this performance are, in particular, the degree of openness of international trade; the way in which excessive indebtedness – a problem that limits both the import capacity and the investment possibilities of many economies of the region – is managed; and the possibilities of gaining access to technologies and know-how on terms that facilitate changing production patterns so as to achieve international competitiveness.

The conditioning factors of external origin are intermingled with others of internal origin and often act to strengthen them. Among the latter factors, in particular, there is the need to correct macroeconomic disequilibria, which were the dominant feature of the 1980s. A major query also arises as to the manner in which development will be financed, in view of the massive negative transfer of financial resources of recent years. Thirdly, the guidelines offered by this document take into account the need to maintain social cohesion, a matter which places clear limits on the content of economic policies and strategies.

d) *The domestic effort and international co-operation*

Promoting the transformation of the productive structure and clearing the way for greater social equity are tasks that call for decided, persistent and whole-hearted efforts by governments and all members of society. These efforts will only bear fruit, as already noted, in an external environment which provides conditions that are at least minimally favourable to such vital matters as financing in general (including, more specifically, a solution to the external debt problem), trade, and the transfer of technology and know-how. All this raises more forcibly and enhances the priority of the need for international economic co-operation.

In this respect, it is to be hoped that the region will be able to face the international dialogue and negotiations from a more favourable position than in the past, for if the countries of Latin America and the Caribbean adopt their own strategies which enable them to progress in changing their pattern of production, this would put them in a more legitimate, credible

and efficacious position for demanding that the industrialized countries should shoulder their own responsibilities in the ordering of a vigorous world economy capable of offering dynamic growth to all countries. Moreover, the reactivation of the economies of the region, accompanied by a higher degree of intraregional co-ordination, would strengthen the bargaining power of the Latin American and Caribbean countries *vis-à-vis* other nations.

Furthermore, the industrialized countries themselves seem to be rediscovering at least some of the advantages of multilateral-type arrangements. In connection with subjects such as the environment or marine resources, it has become clear that the bilateral arrangements so dear to the main developed economies in recent times are insufficient for dealing effectively with certain problems. It is to be hoped, then, that those economies will also accept, more specifically, the idea that the possibility of keeping up a sustained and orderly expansion of the world economy as a whole depends in essence on finding ways and means which benefit both the developed and the developing countries.

e) *The central proposals of this document*

The statements set forth below all stem from a single conviction: that although the countries of the region do indeed face serious obstacles, there are ways of overcoming them. In some respects, this conviction allays the discouragement generally felt when viewing the situation of Latin America and the Caribbean as the new decade unfolds. It is based on the advances made in other parts of the world, where structural and short-term difficulties have also been encountered (some of them similar to those now affecting the development of most of the countries of the region), as well as on the painful lessons of the last decade and on the rich store of assets built up by the region in the chequered course of recent decades.

The complexity and magnitude of the task at hand call for a more or less lengthy period of learning and adaptation. Many countries have already completed part of this process, so that concrete achievements may be expected in the early years of the 1990s. Even so, there is still a long way to go. This statement also holds implications for the field of international co-operation: the countries need a certain

amount of leeway in their external sector in order for their efforts to bear fruit, and time is also needed before the benefits are borne out.

The following sections set forth the criteria on which ECLAC's proposals are based, the guidelines for designing the policies needed to implement them, and the institutional support they require.

i) *The main criteria*

Changing production patterns with equity must be achieved within the context of greater international competitiveness, based more on the deliberate and systematic absorption of technical progress by the production process (with corresponding rises in productivity) than on the maintenance of low real wages. In this respect, proper account must be taken of the need for learning and dissemination of internationally available know-how: a possibility which has not been sufficiently exploited by the region in the past. What is needed is to progress from the "transitory rents" derived from natural resources to "continuing rents" offered by the absorption of technical change by productive activities.

Emphasis must be placed on the systemic nature of competitiveness. In the international market, competition takes place among economies in which the enterprise, though of crucial importance, forms an integral part of a network of linkages with the educational system, the technological, energy and transport infrastructure, the relations between employees and employers, public and private institutions, and the financial sector: in other words, it is integrated into an entire economic and social system. From this point of view, promoting changes in the pattern of production calls for decided, persistent and above all properly integrated efforts.

Industrialization is the kingpin of change in the pattern of production, mainly because it is the vehicle for the absorption and dissemination of technical progress, but also because in today's circumstances it is necessary to go beyond the narrow sectoral framework within which it has so far been approached, so as to link it with the areas of primary production and services in order to integrate the productive system and further the progressive homogenization of productivity levels. Overcoming rigid sectoral divisions is one of the

keys to transforming the pattern of production and entering into the new phase of industrialization.

Changes in productive patterns must be compatible with conservation of the physical environment, and consequently the environmental and geographico-spatial dimension must be fully incorporated into the development process. What is needed is, on the one hand, to reverse the negative tendencies towards the depletion of natural resources and the increasing deterioration through contamination and global imbalances, and on the other hand to take advantage of the opportunities for making use of natural resources on the basis of research and conservation.

Sustained growth based on competitiveness is incompatible with the continued existence of lags as regards equity. This is not to ignore the difficulty of simultaneously attaining equity and growth, for trade-offs naturally arise in connection with the values to be assigned to these objectives and the capacity of the system to absorb and assimilate changes. In this respect, the urgency of correcting shortcomings in different fields will differ from one country to another: for some, strengthening the weakened social fabric is almost a *sine qua non* for survival, while for others the first priority is to promote competitiveness, without however suffering any substantial setbacks in equity.

ii) *Some guidelines for policy design*

The desired changes in productive patterns can hardly be achieved merely by creating a stable and appropriate macroeconomic climate or applying a policy of "the right prices". They also demand the combination of macroeconomic management with sectoral policies, as well as the integration of short- and long-term policies. In addition, they will call for institutional changes in line with strategic orientations that are likewise of a long-term nature, and which would offer a foundation to new forms of interaction between public and private agents, as essential ingredients for achieving equity and social harmony. Such an interaction must, in fact, form part of a new global system of relations between the State and its citizens.

The imperative of equity means that changes in production patterns must be accompanied by

redistributive measures. No matter how intensive the effort to secure changes is, it will undoubtedly be a long time before it is possible to overcome the existing structural heterogeneity through the absorption of all marginalized sectors into activities of greater productivity. It will therefore be necessary to think in terms of supplementary redistributive measures, including technical, financial and marketing services as well as mass training programmes for micro-entrepreneurs, self-employed workers and peasants; the reform of various kinds of regulations which hinder the establishment of micro-businesses; the adaptation of social services to the needs of the poorest sectors; the promotion of reciprocal aid arrangements and proper representation of the needs of the most under-privileged groups to the State authorities; and measures to take full advantage of the redistributive potential of fiscal policy, both on the income side and as regards the orientation of public spending.

Latin American and Caribbean integration and intraregional co-operation are essential, as they make a vital contribution to strengthening changes in production patterns, democratization, and greater justice in income distribution. In this field, concrete measures are proposed, based on sectoral - preferably subregional- and gradual criteria which lay stress on competitiveness and profitability and which presuppose a leading role for the enterprises, institutions and associations already existing in the region. Such action is designed to ensure that integration assists and strengthens the proposed development strategy.

iii) *The institutional context*

All the foregoing is based on the recognition that the economic strategies and policies must be applied within a democratic, pluralistic and participatory context. This affects the content and scope of economic policies and strategies, the way they are formulated and applied, and the forms of interaction between public and private agents. In this respect, the policies and strategies must faithfully respect the will expressed by the broad masses and must be subject to change, in accordance with expressions of the majority opinion.

In democratic societies, the concept of "concerted strategies" takes on decisive importance. Such strategies comprise a set of broad-ranging explicit and implicit agreements between the State and the main political and social actors with regard to changing production patterns with equity and the series of policies and institutional innovations required in order to achieve them. What is at issue is the due legitimization of mechanisms and actions which, on the one hand, give rise to forms of behaviour consistent with the common aims and, on the other, prevent the actions of group interests which could harm collective aims. The capacity of governments to generate agreement on long-term goals and targets, as well as the means to be used to attain them, is directly related with the degree of pluralist participation, the suitability of the policies selected, and the effectiveness of their implementation.

The style of State intervention will no doubt change in relation to past decades. During the 1980s, the priorities of the States in the region were frequently reduced to seeking a form of growth which would make it possible to service foreign debt. Now, however, these priorities must be shifted towards the strengthening of a form of competitiveness based on the absorption of technical progress together with a trend towards reasonable levels of equity. This does not necessarily mean either increasing or decreasing the role of the public sector, but rather increasing its positive impact on the efficiency and effectiveness of the economic system as a whole. It also calls for a change in the State's traditional procedures in the field of planning in order to create closer links between the short-, medium- and long-term decision-making processes; to promote intersectoral co-ordination, and to provide technical support for the necessary efforts of dialogue and social consensus building. Clearly, the strategies adopted will be put to the test daily as regards their effects and their degree of acceptance by the various participants.

f) *The main elements of the proposals**

In addition to the central postulates set forth above, this document makes a number of proposals aimed at improving the region's participation in the international economy,

* Summary of chapters V and VI of this document.

promoting better linkages of productive activities, and inducing a creative interaction between public and private agents, all with the objective of fulfilling the strategic goal of generating real competitiveness: an objective which brings together all these specific aims and would constitute a guide for changing production patterns. These proposals are based on the idea of incorporating the positive experience already put into practice in various countries of the region. They should therefore be considered in the broader context of their capacity to help achieve changes in production patterns with equity.

The *macroeconomic sphere* and the policies which make it up are of vital importance, both for correcting the disequilibria which marked the 1980s and for achieving the sought-for changes in the medium and long term. One of the lessons learnt in the past decade was that the imbalances in the main macroeconomic variables can only be allowed to reach certain limits, and market prices must at least approximate social prices. Another lesson was that the marked emphasis placed on stabilization, on adjustment, and on measures to influence demand and the reallocation of resources conflicted, to some extent, with policies designed to stimulate supply.

There is no need to go into detail here about the content and scope of short-term economic policy, which will vary significantly from one situation to another. Emphasis should be placed, however, on the importance of a policy framework which imparts coherence to its various components and on the need for a reasonable degree of stability in its application. Stress should also be laid on the extraordinary importance which has been acquired by *fiscal policy* in the range of instruments available to governments for tackling sometimes conflicting objectives such as stabilization, growth and greater equity in income distribution. Financing changes in the production patterns naturally calls for some reorganization of fiscal policy in order to increase public savings that can be used for investment. Every effort should be made to improve the allocation of expenditure, but it seems clear that most of the fiscal adjustment must be through tax reform. A system with relatively few, but broad, tax bases, using preferentially uniform rates of taxation, is preferable to a complex system with multiple

nominal rates. The adoption of broad tax bases represents an important step towards the objective of greater equity, and moreover it simplifies tax administration and enables revenue to be increased.

With regard to *trade and exchange policy*, achieving changes in productive patterns calls for greater openness of the economy, as a means of generating increases in productivity and stimulating the absorption of technical progress. There is no single formula for securing trade liberalization, but in order for said liberalization to strengthen the growth process rather than hindering it, it is essential that it should lead not only to greater imports but also to a rapid and sustained increase in exports. It should therefore be graduated in line with the availability of foreign exchange. In addition, it involves the harmonization of tariff and para-tariff protection, exchange policy and export promotion policies, all with the aim of bringing the level of effective protection for export activities to a level similar to that of the import substitution sector. An essential requisite to ensure that greater trade liberalization contributes to growth and changing production patterns is the maintenance of a high and stable real exchange rate. During the critical stage in which the conversion and modernization of the industrial system is being carried out, the selective intervention of the State through the granting of tax, credit and trade incentives could serve as an important supplement to tariff policy.

In connection with *technology policy*, the region's status of "late industrialization" offers hitherto insufficiently exploited opportunities as regards the learning, absorption and dissemination in the productive sector of the internationally available stock of technology. As guidelines for the 1990s, it is necessary to supplement and adapt the technological infrastructure in the most backward priority activities; to promote a greater propensity to incorporate technical progress and innovations within enterprises; and to further a proper appreciation of technology as a strategic variable and source of benefits by giving government incentives to existing businesses to undertake innovative activities and supporting the establishment of new enterprises with a high technological component. It is also suggested that efforts should be made, through various

institutional arrangements, to set up a network linking the research system and the rest of the technological infrastructure, on the one hand, with the productive sector on the other, as well as to promote within the latter a system of close contacts between users and producers of goods and services. This latter objective could be achieved through various integrated systems of production in which basic experience and competition has already been built up at the local level (as in the case of certain sectors which process natural resources and the industries associated therewith). Finally, selective criteria must be applied, as only in this way will it be possible to generate endogenous nuclei of technological innovation in the region.

With regard to the *training of human resources*, emphasis should be placed on its crucial role in changing production patterns. This is the area where there is the best possible conjunction of economic growth considerations with those relating to social equity. The speeding-up of technical change, the heterogeneity within and among the countries of the region, the changing needs as regards labour skills, and the diversification of the agents of production mean that it cannot be expected that one single agent should be responsible for the tasks of educating, training and retraining human resources. In addition, the shortage of resources available for improving training systems means that it is essential to make the fullest use of the various contributions that different institutions can make in the field of training human resources. All this fully justifies the need for a long-term strategy designed to raise, gradually and steadily, the educational supply in the various phases and areas: the pre-school, basic and secondary cycles, universities, research centres, training systems, mass education and adult education programmes, and occupational retraining programmes.

As regards the *establishment of enterprises*, there is a need to design policies to stimulate the formation of enterprises and the training of entrepreneurs. It is recognized that this is a complex task, as the investment process involves factors that are not always included in traditional economic approaches, and even some that are intangible, such as human creativity. The current conception of the problem, however, involves giving particular

attention to the creation of groups with entrepreneurial potential, the formulation and implementation of projects, the financing of enterprises, and the rationalization of the different forms of productive employment at the national level. At the same time, there is another aspect of special importance for Latin America and the Caribbean: the need to assign an enhanced social value to entrepreneurial activities.

The *industrial policy* outlines offered form part of the set of proposals designed to promote, *inter alia*, an improvement in production linkages. This set includes gradual and selective trade liberalization, the integral promotion of industrial exports, the absorption and dissemination of technical progress, and support for small- and medium-scale enterprises. The proposed actions will have to be embarked upon in a context of financial restrictions and weakening of public sector institutions, which gives rise to three challenges: making a coherent selection of those areas that warrant government intervention; giving priority to the strategic reconstruction of public sector institutions, and assigning priority to institutional innovation in the management of the productive process.

With regard to *agriculture, intersectoral linkages, and international competitiveness*, in general it is desirable to get away from the urban/industrial bias in the allocation of economic investments and social spending, as well as assigning new and higher status to rural areas; to modify the current bias in favour of large modern agricultural enterprises through a more selective approach which envisages, as appropriate, the strengthening and modernization of small-scale agriculture; to avoid the concentration of investment in large-scale water projects, with emphasis instead on the maintenance, complementation and development of smaller works, as well as the integrated management of water resources; to strengthen intersectoral linkages and the consolidation of efficient production, transport and marketing arrangements, while avoiding enclosure in sectoral compartments; and to end the persistent disputes over land and other ownership by regularizing legitimate title deeds.

The subject of *natural resources and production linkages* is also dealt with. A policy for the rational use of the region's natural

resources in the next decade must be aimed at correcting the shortcomings of the past and making progress in a number of aspects. Natural resources cannot be left at the mercy of a short-sighted system of maximum immediate exploitation, but must be subject to a system of careful management which calculates the appropriate rates of use of non-renewable resources in the light of the present situation and future prospects of the markets and ensures the maintenance of the reproductive capacity of renewable resources. Nor must the natural resources sector be viewed as a mere source of income for transfer to other sectors; instead, steps must be taken to build up productive systems linked with industry and services, so as to heighten the value of the resources and contribute to a process of technological and organizational change which will strengthen their competitiveness.

With regard to *basic support services and their production linkages*, the proposed changes will need the support of the various basic services such as electricity, water, communications, banking, insurance and transport. Some of these will have to be adapted to the circumstances of the 1990s. In the case of transport, for example, the use of the market mechanisms should be favoured where they already exist or can be created on suitably competitive terms, while it will also be necessary to prevent the continued concentration of investment in physical infrastructure and to try to ensure that the transport services are appropriate, in terms of quality and cost, for the process of change in productive patterns. Furthermore, isolated actions in the individual transport media must give way to the establishment of properly integrated transport systems.

In respect of *financial systems and changing production patterns*, it is noted that in the 1990s a basic objective of the banks and development funds will be to procure on the market medium- and long-term resources to supplement those that may be provided or channelled by the public sectors. This points to the importance of issuing securities that offer a good yield, the emphasis that must be placed on the profitability of investment projects, and the need for project financing formulas that keep down the loan risks of the development institutions.

Measures to secure *active interaction between public and private agents* and the *restructuring of the public sector* will form part of a process whose content and scope cannot be subject to preconceived formulas. They will depend not only on the institutional, social, economic and political context in which they take place, but must also arise from a broad effort at consensus building among the various representative forces. Consequently, this document only offers some general principles for State action in support of changing production patterns with equity. Outstanding among these principles are selectivity in the actions of the State, the self-limitation of such actions, the simplification and decentralization of State intervention, and improvements in the medium-term forecasting capacity through new forms of planning.

Economic integration, as a process which contributes to changing production patterns with social equity, will be an aspect that acquires fresh relevance and support in the 1990s. In the context of the objectives of change in the patterns of production, it is proposed to promote innovation, learning and the dissemination of technology through the expansion and extension of relations between enterprises, sectors and institutions at the subregional and regional level, together with the application of flexible integration instruments and geographical groupings. Liberalization of intraregional trade, co-operation in transport and in trade facilitation together with the rehabilitation of payments mechanisms, would expand markets and promote competition, thus helping to create a symbiosis between external and regional demand. This would increase competitiveness and the possibilities of increasing exports to the region and to the rest of the world. All this would be facilitated by selective co-operation in the field of sectoral policies and through the establishment of a wider scientific and technological outreach, with joint actions in such aspects as intellectual property and information technology. Furthermore, it is proposed to explore the possibilities of making use of joint trade liberalization, perhaps by selectively binding tariffs, as a negotiating instrument for guaranteeing access to external markets. Emphasis is also placed on the need to strengthen the institutional basis of integration, with greater participation of the various types of actors, both public and private, in the decision-making process.

II. THE STARTING POINT: RECENT EVOLUTION AND CURRENT SITUATION OF THE LATIN AMERICAN AND CARIBBEAN ECONOMIES

On several occasions, the Secretariat has made assessments of the performance of the economies of the region during the 1980s. The depth and duration of the economic crisis of the past few years has also been stressed repeatedly and its origins, scope and consequences have been examined.¹ Therefore, that analysis will not be reiterated here. Instead the extraordinary wealth of ideas gathered over such a lengthy period has been utilized to make a very brief overview of the region's development during the 1980s, stressing those aspects that are likely to affect the economies in the 1990s.

The term "lost decade" was used in past assessments to illustrate the extent of the economic setback suffered by the vast majority of the countries of the region. Even if economic performance were measured by only the most aggregated indicator, this term is nevertheless an understatement, for the fact is that at the end of 1989 the region's average per capita gross domestic product was 8% lower than it had been in 1980 and was the same as that of 1977 (see table II.1 and figure II.1). If to this is added the fact that such decline had a markedly regressive bias, then it can responsibly be asserted that, in terms of the level of material well-being of the Latin American and Caribbean population, the 1980s witnessed a decline of capital proportions.

Consequently, the countries of the region are entering the 1990s under the burden of the recessive inertia of the 1980s, the liability of the

external debt, the basic discrepancy between the structures of international demand and the composition of Latin American and Caribbean exports, and an accumulation of lags and shortcomings which have led to legitimate but unsatisfied demands, especially by low-income groups.

However, the decline did not take place at all levels, nor did it have equal effects in all countries; its effects varied within the same country at different periods of the decade and not all sectors, social groups or regions were affected in the same way. As will be shown later, some progress was achieved during the decade: economically it was partial and precarious, but it was substantial in the political field, and this, it should be emphasized, is also a central part of the development experience. The region also showed signs of considerable vitality: politically, there was intense interaction between various social actors; at the economic level there were frequently innovative attempts to arrest or overcome the effects of the economic crisis; and as far as institutions were concerned, individuals as well as organized groups demonstrated their ability to adapt to a situation characterized by very rapid changes.

However, such mixed trends do not adequately reflect the significance of a decade which will surely go down as a landmark or turning point in the region's economic history. The term "crisis" is applicable to the performance of the vast majority of the economies and also to the re-emergence of

¹ See for example: ECLAC, *Latin American and Caribbean Development: Obstacles, Requirements and Options* (LC/G.1440-P), Cuadernos de la CEPAL series, No. 55, Santiago, Chile, June 1987, United Nations publication, Sales No. E.87.II.G.9, especially pp. 17-19; ECLAC, *Towards Sustained Development in Latin America and the Caribbean: Restrictions and Requisites* (LC/G.1540-P), Cuadernos de la CEPAL series, No. 61, Santiago, Chile, January 1989, United Nations publications, Sales No. E.89.II.G.3, especially pp. 17-23; and also the *Preliminary Overview of the Latin American Economy*, which is presented every December (especially the last part).

Table II.1
LATIN AMERICA AND THE CARIBBEAN: PER CAPITA GROSS
DOMESTIC PRODUCT

(On the basis of figures in dollars at constant 1980 market prices)

	1981	1982	1983	1984	1985	1986	1987	1988	1989 ^a	1981- 1989
Latin America (excluding Cuba)	-1.9	-3.5	-5.0	1.2	1.3	1.4	0.7	-1.5	-1.0	-8.3
Oil-exporting countries	3.3	-3.1	-7.4	0.1	-0.1	-3.3	-1.0	-0.8	-2.6	-14.2
Bolivia	-1.7	-6.9	-9.0	-3.0	-2.8	-5.6	-0.6	0.0	-0.4	-26.6
Ecuador	0.9	-1.7	-3.8	2.0	2.1	0.7	-11.5	14.1	-2.0	-1.1
Mexico	6.1	-3.0	-6.5	1.2	0.2	-6.0	-0.8	-1.1	0.8	-9.2
Peru	1.6	-2.3	-14.1	2.1	-0.3	6.2	4.6	-10.9	-12.4	-24.7
Trinidad and Tobago	-1.8	-1.2	-15.0	-4.9	-4.5	-4.3	-8.3	-4.9	-5.3	-40.8
Venezuela	-4.0	-4.0	-8.1	-4.2	-1.0	3.1	-0.5	2.1	-10.8	-24.9
Non-oil exporting countries	-5.3	-3.9	-3.4	1.9	2.2	4.4	1.6	-1.9	-0.1	-4.8
Antigua and Barbuda	3.5	-0.8	4.1	6.2	6.4	7.1	7.4	6.3	-	-
Argentina	-8.4	-7.2	1.1	0.9	-5.9	4.4	0.5	-4.4	-6.7	-23.5
Bahamas	-10.6	6.2	1.5	5.1	3.5	-0.2	3.3	2.8	-	-
Barbados	-2.3	-5.2	0.0	3.2	0.6	4.7	2.4	2.6	2.2	8.1
Belize	0.8	-2.6	-3.9	0.9	-0.1	0.2	11.3	5.5	-	-
Brazil	-6.5	-1.6	-5.6	2.8	6.1	5.2	1.5	-2.4	0.9	-0.4
Colombia	0.1	-1.1	-0.2	1.7	1.7	4.9	3.7	1.6	0.9	13.9
Costa Rica	-5.3	-10.0	-0.3	4.8	-2.1	2.4	2.5	0.1	2.3	-6.1
Cuba ^b		3.3	4.3	6.5	3.9	0.3	-4.7	1.0	0.4	33.5
Chile	3.5	-14.5	-2.2	4.3	0.7	3.6	3.7	5.3	6.7	9.6
Dominica	5.0	2.5	0.7	5.4	0.3	5.6	5.4	4.3	-	-
El Salvador	-9.6	-6.5	-0.3	1.3	0.5	-1.2	0.8	-0.4	-3.1	-17.4
Grenada	0.9	5.4	0.2	3.9	4.3	4.5	3.9	3.2	-	-
Guatemala	-1.8	-6.1	-5.4	-2.8	-3.3	-2.6	0.7	0.8	0.8	-18.2
Guyana	-2.6	-12.6	-11.7	0.3	-0.8	-1.6	-1.1	-4.6	-3.6	-33.1
Haiti	-4.5	-5.1	-1.2	-1.4	-1.5	-0.8	-2.1	-2.1	-1.6	-18.6
Honduras	-2.7	-5.4	-3.6	-1.2	-1.9	1.6	0.7	0.7	-0.7	-12.0
Jamaica	1.2	-1.5	0.4	-2.2	-6.9	1.0	4.1	-1.0	-0.5	-5.8
Nicaragua	2.0	-4.0	1.2	-4.8	-7.3	-4.3	-4.0	-11.1	-6.4	-33.1
Panama	1.7	2.7	-2.2	-2.6	2.6	1.3	-0.1	-18.2	-2.0	-17.2
Paraguay	5.3	-4.0	-6.0	0.0	0.9	-3.3	1.4	3.6	2.6	0.0
Saint Kitts and Nevis	5.2	6.1	-1.1	6.6	5.7	4.1	4.4	4.9	-	-
St. Lucia	-0.5	1.3	2.3	3.4	4.3	4.2	1.4	3.4	-	-
Saint Vincent and the Grenadines	6.9	3.3	4.8	4.2	3.7	6.2	4.8	6.4	-	-
Suriname	6.8	-4.8	-4.7	-3.3	-0.3	-0.1	-9.3	-1.3	-	-
Dominican Republic	1.5	-1.1	2.5	-2.0	-4.1	0.8	4.7	-0.7	0.7	2.0
Uruguay	0.8	-10.6	-6.6	-1.9	-0.4	7.2	5.8	-0.4	-0.1	-7.2

Source: ECLAC, on the basis of official data.

^a Preliminary figures. ^b Refers to global social products (not comparable with the other figures).

various long-standing failings and shortcomings that were highlighted by the highly unfavourable international economic climate. In this respect, the 1980s were, in historical terms, a turning point between the previous pattern of development in Latin America and the Caribbean and an uncompleted but undoubtedly different phase which will mark the future development of the region. The "lost decade" was also a decade of painful learning, and could possibly be equated with historical situations which all countries of late industrialization went through. It could ultimately turn out to be the decade that put the region back on its way to recovery and development on new bases.

This chapter attempts to describe the main failings that emerged in the 1980s. There are at least five main interrelated characteristics that should be pointed out, albeit briefly. The first is the slowdown in economic growth; the second, the persistent macroeconomic imbalances; the third, the regressive nature of the adjustment; the fourth, the marked weakening of the public sector; and, finally, the decline in capital formation.

a) *The slowdown in economic growth*

With substantial differences in degree from country to country, the main sources of economic growth of the past three decades – i.e., an expanding export sector dependent on primary commodities, industrialization that was basically fuelled by internal demand, and sustained growth in investments (especially public investments) – tended to slow down or even stagnate completely.

In the export sectors of most of the countries the value, though not the volume, of external sales of traditional products fell considerably due to the decline in unit prices; thus, the value of total exports stagnated or declined in 11 of the 19 main countries of the region. The decline in demand for basic commodities was not only due to a long-standing cyclical downturn but also reflected substantial changes in the structure of such demand.² According to ECLAC calculations, a weighted index of the

real prices of 27 commodities exported by the region (including fuels) showed a decline of over 25% between 1980 and 1989. Without fuels, the decline stood at 20% (see table II.2 and figure II.2).

Behind these indicators lies the fact that there is a basic discrepancy between the structure of demand, production and technology of the international economy and the composition of Latin American exports. That discrepancy had been growing over the decades but became more pronounced in the last few years as a result of more rapid rate of world technological change.

The foregoing explains, among other aspects, the gradual decline in the region's relative position in world trade which worsened in the 1980s. In 1960, the value of total exports of Latin America and the Caribbean accounted for about 7.7% of world exports. Twenty years later, that figure had declined to 5.5%, while in 1988 it stood at 3.9%. The region's share of imports, for its part, declined from 7.6% in 1960 to 5.9% in 1980 and to 3.3% in 1988. These figures reflect not only the decline in the level of economic activity but also the deterioration in the bargaining power of the countries of the region.

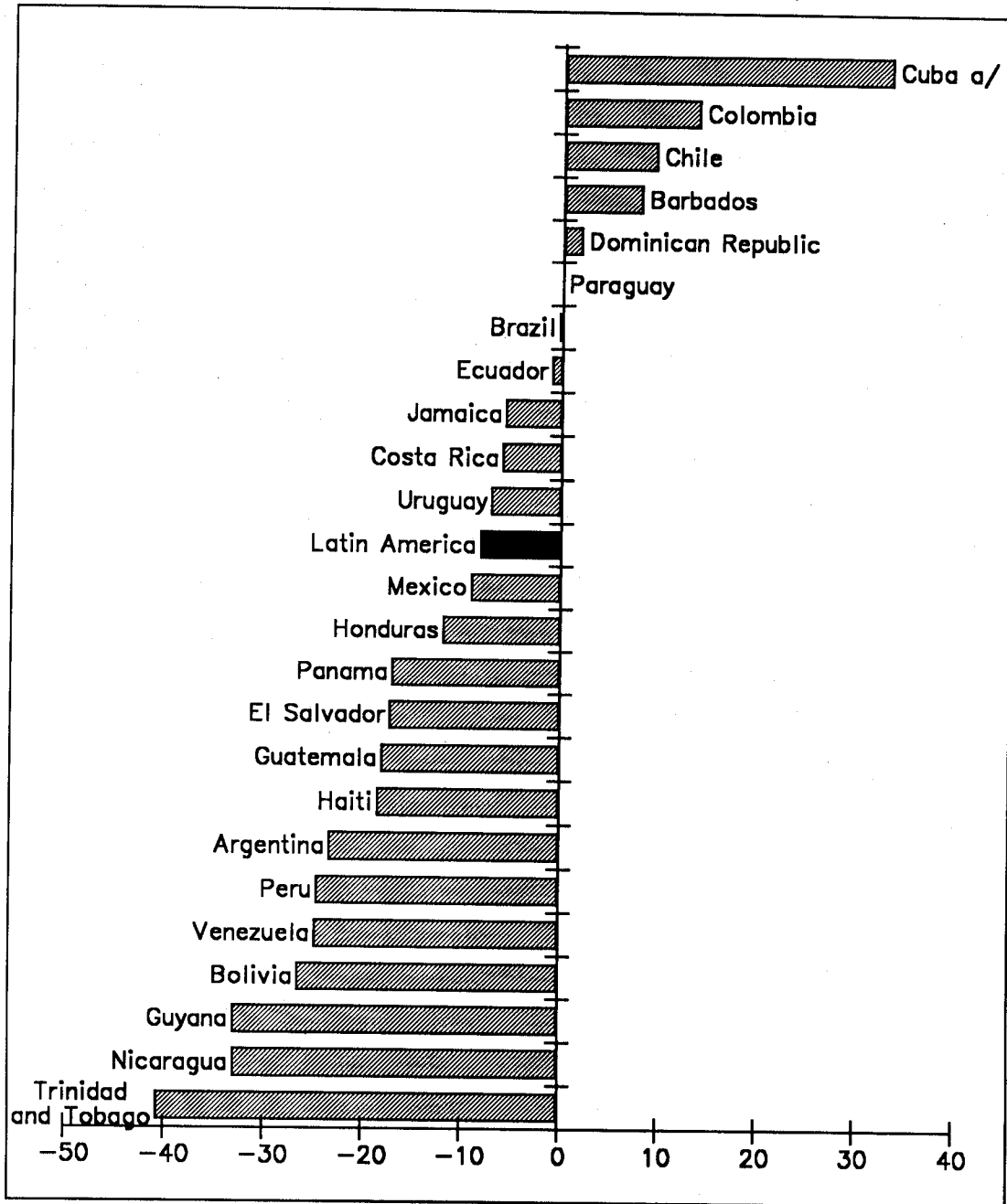
It should be noted, moreover, that intraregional economic integration was able only temporarily to lessen the recessionary effects produced by the external sector; in the end, regional economic integration became yet another victim of the crisis. The combination of exchange rate instability, shortage of foreign exchange and reduced real income, together with the limited scope for reducing the impact of such factors on trade between the countries, caused drastic declines in intra-Latin American trade during the first half of the 1980s (see table II.3).

With regard to industrialization, it was observed that the value added in this sector grew faster than the product during periods of expansion but that it declined faster than the product in periods of recession, at least in those countries where production is basically geared to meeting domestic demand. In the 1980s, the

² Over and above the familiar phenomenon of low income elasticity of demand for such products on the world market, demand for many of the food items and drinks has also been affected by a switch in consumer preferences in the industrialized countries; other export products have had to face competition from the often subsidized production of industrialized countries, and yet others have been affected by technological innovations that tend to replace minerals with substitutes that cost less or require less energy to produce.

Figure II.1

LATIN AMERICA AND THE CARIBBEAN: PER CAPITA GROSS DOMESTIC PRODUCT
(Cumulative percentage variation, 1981-1989)



Source: ECLAC, on the basis of official figures.

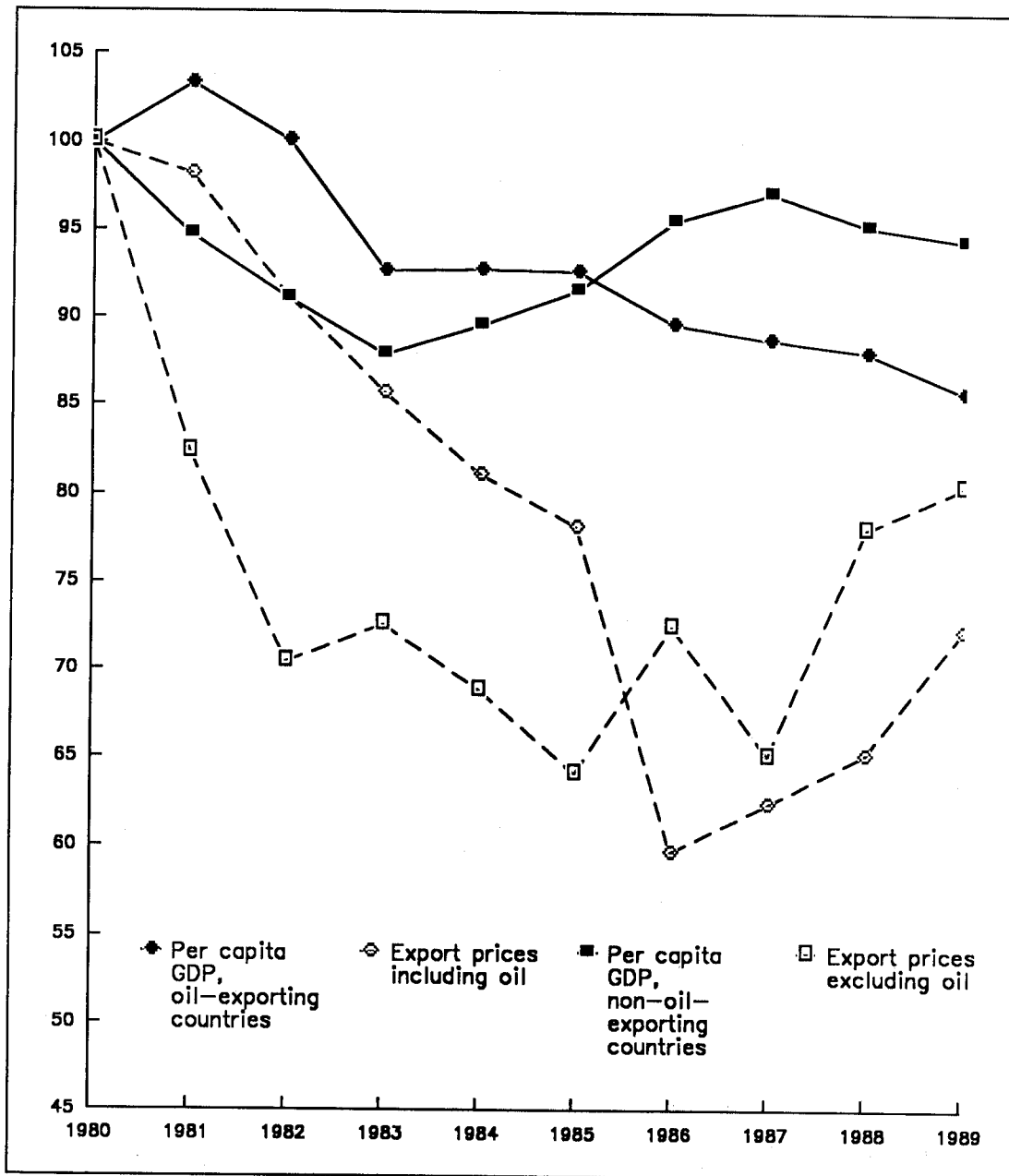
a/ Refers to the concept of global social product.

Table II.2
LATIN AMERICA AND THE CARIBBEAN: PRICE INDEXES OF MAIN COMMODITY
EXPORTS, 1981-1989
(1980 = 100)

	1981	1982	1983	1984	1985	1986	1987	1988	1989
I. Foodstuffs	76.4	57.5	61.6	52.2	45.6	50.5	53.4	65.1	66.9
Soya meal	96.0	83.0	90.4	74.9	59.7	70.2	77.2	101.7	96.7
Wheat	100.9	91.8	89.9	87.1	78.4	65.3	65.1	83.2	97.2
Maize	86.1	65.3	77.1	79.5	64.3	52.8	52.0	64.6	68.4
Sugar	58.9	29.4	29.5	18.1	14.1	21.2	23.5	35.5	42.9
Beef	89.1	86.1	87.9	81.5	77.5	75.5	85.9	90.7	89.6
Bananas (1.1)	107.2	100.0	115.3	98.7	101.6	107.1	99.7	119.9	133.7
Bananas (1.2)	105.6	101.1	111.8	104.3	100.8	121.4	145.7	134.8	107.9
Shrimp	95.7	134.8	130.4	114.1	103.3	127.2	113.1	122.8	118.1
Cocoa	79.8	66.9	81.4	92.0	86.6	79.4	76.7	61.0	50.7
Fish meal	92.7	70.0	89.7	74.0	55.5	63.6	76.0	107.9	80.4
II. Beverages	84.9	79.8	76.8	81.5	83.3	118.9	63.1	72.4	65.7
Coffee (2.1)	81.3	83.1	79.2	82.4	86.0	123.1	68.9	75.6	70.9
Coffee (2.2)	89.3	68.8	68.4	71.7	72.7	110.7	50.9	58.4	52.7
Coffee (2.3)	83.1	90.7	85.3	93.5	94.4	125.0	72.8	87.6	77.3
III. Oils and oilseeds	93.3	80.0	92.8	103.9	82.3	66.1	67.4	94.4	88.6
Soya oil	84.7	74.8	88.1	122.3	95.6	57.2	55.9	77.5	72.4
Soya	97.4	82.5	95.1	95.2	76.0	70.3	72.8	102.4	96.3
IV. Agricultural and livestock products	92.2	86.8	93.6	91.7	82.6	80.1	95.0	97.2	102.3
Cotton	91.1	77.3	90.0	85.3	65.6	56.1	80.8	67.4	78.9
Hides and cattle	73.9	77.8	84.1	102.5	86.7	75.5	82.7	112.4	112.7
Wool	91.7	79.5	74.1	72.8	72.3	75.3	95.2	106.5	100.0
Coniferous wood	93.8	82.9	111.5	90.8	90.5	107.7	118.1	110.3	120.9
Non-coniferous wood	87.3	82.2	79.3	72.1	70.7	97.5	116.6	123.6	126.1
Tobacco	112.8	128.1	130.1	130.2	129.3	114.7	110.1	113.5	122.0
V. Minerals	85.4	78.9	77.8	72.5	71.1	67.7	79.0	100.6	114.8
Bauxite	101.8	98.0	84.5	77.6	77.3	77.7	77.5	77.6	77.6
Copper	80.1	68.1	73.3	63.4	65.2	63.2	81.9	119.6	134.4
Tin	84.3	76.4	77.4	72.9	71.2	33.9	41.0	42.8	54.3
Iron ore	90.6	96.3	88.1	85.0	83.4	80.5	81.7	85.0	97.5
Silver	51.1	38.6	55.6	39.6	29.9	26.6	34.1	31.8	26.9
Lead	80.2	60.3	47.0	48.9	43.2	44.8	65.9	72.4	72.7
Zinc	111.0	97.6	100.3	117.4	99.1	93.4	104.8	162.7	224.9
VI. Petroleum and petroleum products	113.5	111.1	98.1	93.0	91.7	47.4	59.9	52.8	64.5
Crude petroleum	115.9	115.9	101.5	97.8	95.8	47.4	61.5	52.9	65.2
Petroleum products	107.0	98.4	89.2	80.2	80.9	47.6	55.6	52.5	62.8
VII. Total, excluding petroleum and petroleum products	82.3	70.4	72.6	68.8	64.1	72.5	65.1	78.1	80.5
VIII. Grand total	98.2	91.2	85.7	81.1	78.2	59.7	62.4	65.2	72.3

Source: ECLAC, on the basis of official figures.

Figure II.2
LATIN AMERICA AND THE CARIBBEAN: PER CAPITA GROSS DOMESTIC PRODUCT
AND EXPORT PRICES
 (Indexes 1980=100)



Source: ECLAC, on the basis of official figures.

relative share of industrial value added in the total product tended to decline in most of the countries; in the region as a whole, industrial value added grew by only 0.5% per year and hence the region's average degree of industrialization declined from 25.2% to 23.8% between 1980 and 1989. Consequently, instead of fueling dynamic growth, the manufacturing sector aggravated the recession.

However, during that period there were substantial changes within the industrial sector. The most significant of these was the increase in the export coefficient from 8% in 1980 to 11% in 1987. Part of this increase was due to the fall in the domestic market, but a by no means insignificant portion was due to increases in production for the external market. What happened with respect to steel production can be used to illustrate the foregoing: regional production rose from 29 million tons in 1980 to 40 million tons in 1987; consumption remained constant at 34 million tons, while imports declined from 8 to 4 million tons and exports rose from 2 to 10 million tons (see figure II.3).

The change in the productive structure of the manufacturing sector becomes evident when the global annual growth rate of 0.5% is compared with the annual average decline registered in the automobile sector, which was the most dynamic sector of previous decades (-1% for passenger vehicles and -6% for commercial vehicles); the increase of 2% for fertilizers and 4% for tractors, and the rise of 4.9% for steel. The number of television sets – durable consumer goods which contribute considerably to standardizing collective regional aspirations and preferences – grew from 95 per 1 000 inhabitants in 1980 to approximately 150 per 1 000 in 1988. At the same time, there was sustained growth in per capita consumption of electricity for residential use in the various countries of the region. This reflects the combination of urbanization and changes in the structure of consumption of the poorest sections of the population: both

processes which represent the continuation of trends that predate the crisis.

Finally, public investments – the third source of dynamism because of its direct impact and its backward links on private investment – declined considerably. This point will be taken up again later on.

b) *Persistent macroeconomic imbalances*

The macroeconomic imbalances which affected many countries of the region in the 1980s had characteristics and consequences that were quite different from similar imbalances in previous decades. They were usually much more pronounced than their predecessors. Although many countries managed to adjust their trade balances, usually through recessive adjustment policies, few indeed of them managed to simultaneously combat inflation and reduce their external deficits (see table II.4 and figures II.4, II.5, II.6, II.7 and II.8).

The factors most responsible for that situation included the external debt service and its consequences for public sector finances and the current account balance. The situation has been examined at length in several documents and does not need to be elaborated upon here. It is enough to state that those countries which had the greatest success in adjusting and stabilizing their economies were the same ones that managed to transfer resources abroad and significantly improve the financial situation of the public sector. Thus, when the value of exports produced by State enterprises rose (as happened in Chile, for instance, with respect to copper) the balance of payments and the fiscal accounts tended to improve as a direct and immediate result, permitting greater growth and lower inflation. Conversely, when the value of exports fell (as generally happened in recent years in the petroleum-exporting countries) the fiscal deficit tended to grow and to heighten the external imbalance.

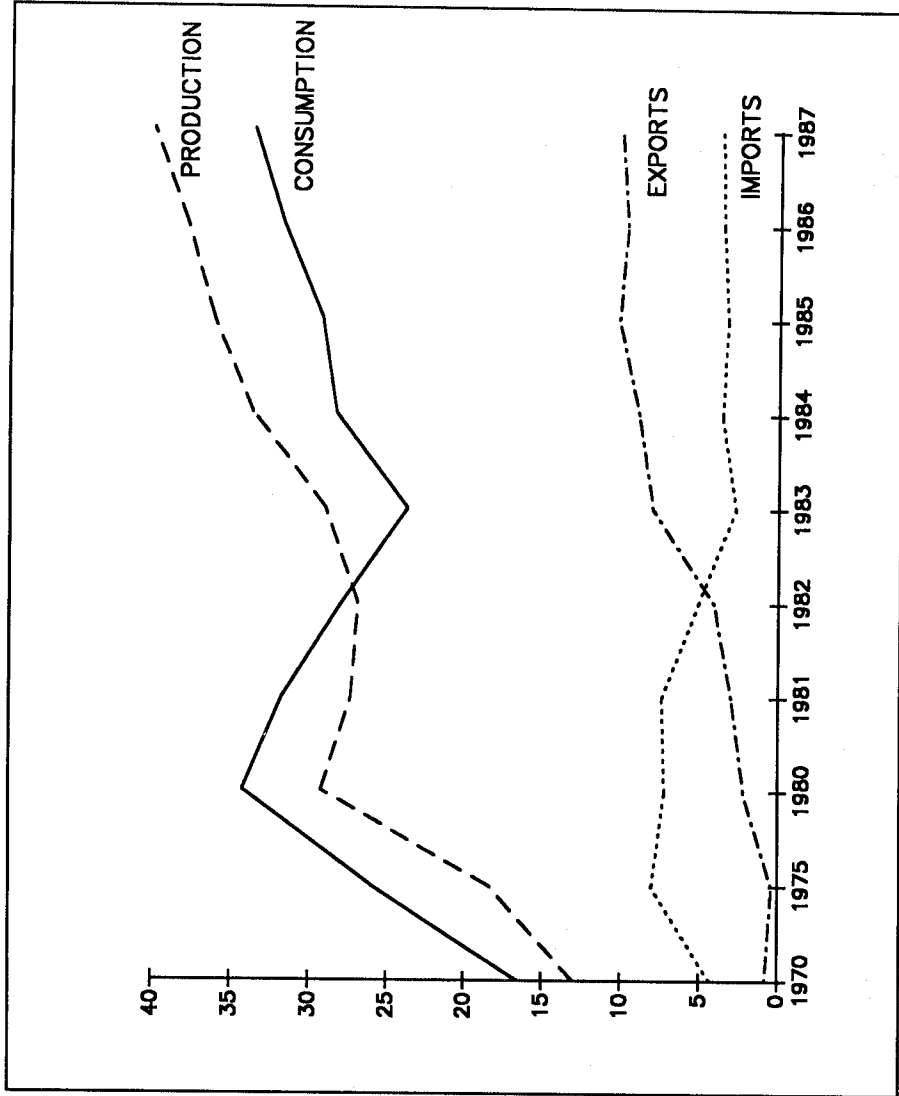
Table II.3
LATIN AMERICA AND THE CARIBBEAN: INTRAREGIONAL EXPORTS
(*Intraregional exports as a percentage of total exports, FOB*)

	1970	1980	1981	1982	1983	1984	1985	1986	1987	1988 ^a
Argentina	21.0	23.6	19.3	20.3	14.0	18.2	18.6	23.8	21.5	20.3
Bolivia	8.9	36.7	42.5	51.8	55.0	52.8	60.1	64.5	57.8	54.8
Brazil	11.6	18.1	19.1	15.0	10.3	11.3	9.6	14.4	13.2	11.9
Colombia	9.6	16.6	22.7	20.8	11.1	10.3	11.9	10.7	15.7	15.1
Chile	12.2	23.5	21.6	19.3	11.9	15.0	14.4	17.2	17.4	13.5
Ecuador	10.0	20.2	17.9	22.2	18.3	9.9	9.3	9.6	12.9	14.8
Mexico	9.5	5.8	9.7	8.4	7.6	6.1	5.3	5.9 ^a	7.7	4.5
Paraguay	38.2	45.3	50.2	50.8	40.2	37.9	27.4	57.2	48.8	29.3
Peru	6.5	21.2	12.7	11.2	10.4	11.9	14.1	14.5	17.6	14.5
Uruguay	12.6	37.3	26.7	30.8	23.3	26.4	28.0	39.1	30.4	27.3
Venezuela	12.5	9.8	14.5	15.2	14.0	13.0	12.5	9.5	11.3	9.7
Total ALADI	12.5	15.4	16.4	15.0	11.7	11.5	11.0	13.5	13.5	11.3
Costa Rica	23.8	34.3	33.2	28.0	29.0	26.0	22.8	17.1	16.1	16.8
El Salvador	31.7	28.5	27.2	26.3	25.3	23.1	17.1	14.0	18.8 ^a	19.3
Guatemala	36.7	32.6	41.3	37.6	34.4	30.6	25.4	22.1	18.0 ^a	20.0
Honduras	17.0	13.5	17.2	13.6	12.5	10.2	6.9	4.3	6.3 ^a	6.5
Nicaragua	27.4	19.7	16.1	17.4	10.1	11.5	9.2	8.0	12.1 ^a	12.3
Total MCCA	28.4	27.6	29.4	26.9	25.0	22.4	18.3	13.6	14.4	15.4
Barbados	6.6	17.3	22.8	22.6	18.5	17.2	18.1	7.2	11.1	14.7
Guyana	1.7	21.2	27.7	21.8	23.4	15.9	15.1	5.2 ^a	7.0 ^a	9.9
Jamaica	4.1	7.6	9.9	14.6	14.4	9.1	9.1	7.6	7.1	6.0
Trinidad and Tobago	9.9	15.0	16.8	18.9	14.3	13.0	11.7	9.3	13.4	14.2
Bahamas	3.9	2.0	2.3	2.1	0.9	0.9	2.2	2.7 ^a	2.2 ^a	0.8
Haiti	1.5	1.1	1.1	1.2	3.3	3.1	1.6	2.4 ^a	1.1 ^a	1.4
Panama	4.2	19.2	16.0	16.0	13.1	13.3	14.0	11.7	11.5	16.8
Dominican Republic	0.9	10.4	8.4	5.8	3.2	5.3	2.7	2.1	2.1 ^a	2.3
Suriname	0.7	10.1	2.6	14.1	14.0	16.3	16.5	14.9	8.5	11.9
Total	12.8	15.5	16.5	15.3	11.8	11.6	11.1	13.1	13.1	11.2

Source: ECLAC, on the basis of official figures.

^a Preliminary estimates.

Figure II.3
 LATIN AMERICA AND THE CARIBBEAN: EVOLUTION OF STEEL CONSUMPTION
 (Millions of tons)



Source: ECLAC, on the basis of data supplied by ILAFA.

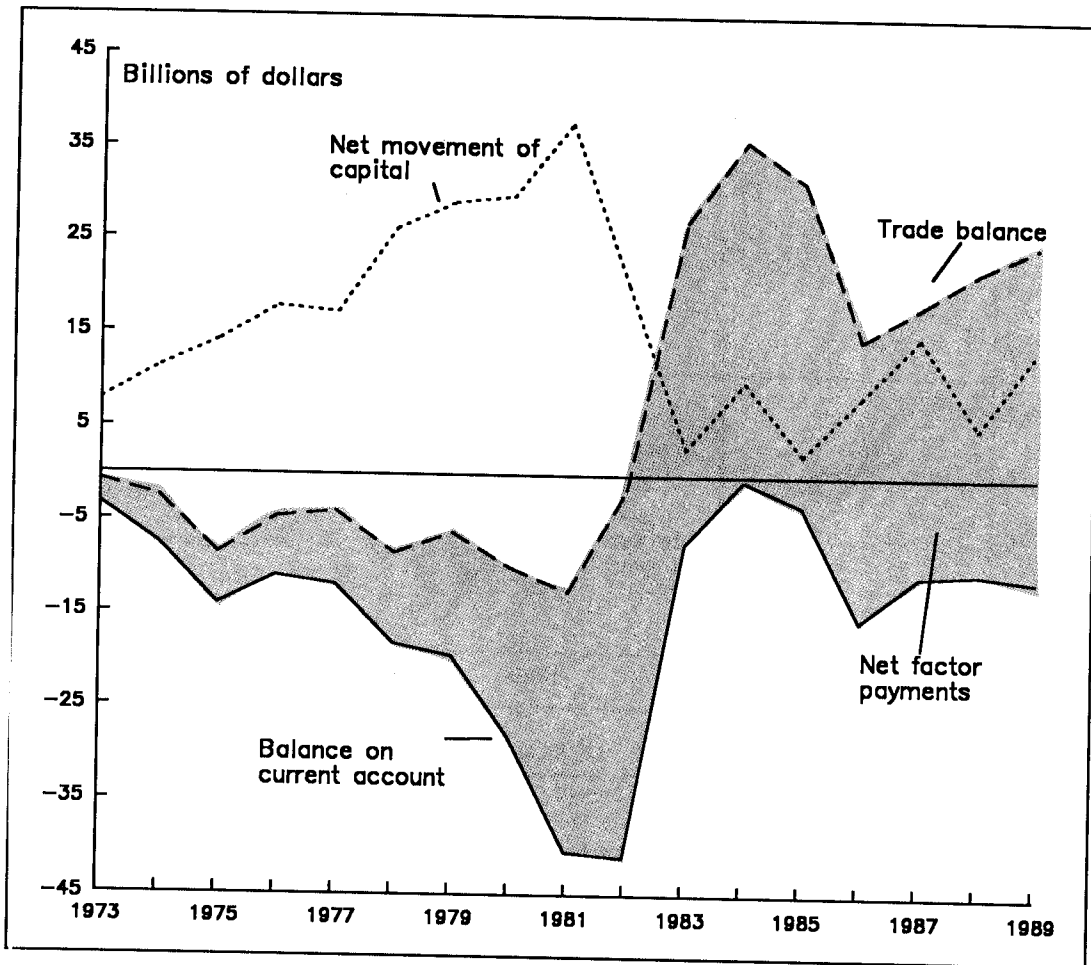
Table II.4
LATIN AMERICA AND THE CARIBBEAN: EVOLUTION OF CONSUMER PRICES
(December-December variations)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 ^a
Latin America	56.1	57.6	84.8	130.5	184.7	275.3	64.6	198.7	773.8	1 023.2
Argentina	87.6	131.2	209.7	433.7	688.0	385.4	81.9	174.8	387.5	3 731.0 ^b
Barbados	16.1	12.3	6.9	5.5	5.1	2.4	-0.5	6.3	4.4	6.3 ^c
Bolivia	23.9	25.2	296.5	328.5	2 177.2	8 170.5	66.0	10.7	21.5	15.7 ^b
Brazil ^d	95.3	91.2	97.9	179.2	203.3	228.0	58.4	365.9	979.8	1 476.1 ^b
Colombia ^e	26.5	27.5	24.1	16.5	18.3	22.3	21.0	24.0	28.2	27.1 ^b
Costa Rica	17.8	65.1	81.7	10.7	17.3	11.1	15.4	16.4	25.3	13.9 ^f
Chile	31.2	9.5	20.7	23.6	23.0	26.4	17.4	21.5	12.7	21.1 ^b
Ecuador ^g	14.5	17.9	24.3	52.5	25.1	24.4	27.3	32.5	85.7	59.2 ^b
El Salvador	18.6	11.6	13.8	15.5	9.8	30.8	30.3	19.6	18.2	21.2 ^h
Guatemala	9.1	8.7	-2.0	15.4	5.2	31.5	25.7	10.1	12.0	14.5 ^b
Guyana	8.5	29.0	19.3	9.6
Haiti	15.6	16.4	4.9	11.2	5.4	17.4	-11.4	-4.1	8.6	5.9 ^f
Honduras	11.5	9.2	8.8	7.2	3.7	4.2	3.2	2.7	6.7	10.8 ^f
Jamaica	28.6	4.8	7.0	16.7	31.2	23.9	10.5	8.4	8.8	16.1 ^c
Mexico	29.8	28.7	98.8	80.8	59.2	63.7	105.7	159.2	51.7	18.2 ^b
Nicaragua	24.8	23.2	22.2	35.5	47.3	334.3	747.4	1 347.2	3 3602.6	6 727.6 ^f
Panama	14.4	4.8	3.7	2.0	0.9	0.4	0.4	0.9	0.3	0.1 ^f
Paraguay	8.9	15.0	4.2	14.1	29.8	23.1	24.1	32.0	16.9	28.7 ^f
Peru	59.7	72.7	72.9	125.1	111.5	158.3	62.9	114.5	1 722.6	2 948.8 ^b
Dominican Republic ⁱ	4.6	7.3	7.2	7.7	38.1	28.4	6.5	25.0	57.6	40.5 ^h
Trinidad and Tobago	16.6	11.6	10.8	15.4	14.1	6.6	9.9	8.3	12.1	11.0 ^h
Uruguay	42.8	29.4	20.5	51.5	66.1	83.0	76.4	57.3	69.0	89.9 ^b
Venezuela	19.6	11.0	7.3	7.0	18.3	5.7	12.3	40.3	35.5	90.0 ^b

Source: International Monetary Fund, *International Financial Statistic*, November 1987, and information provided by the countries.

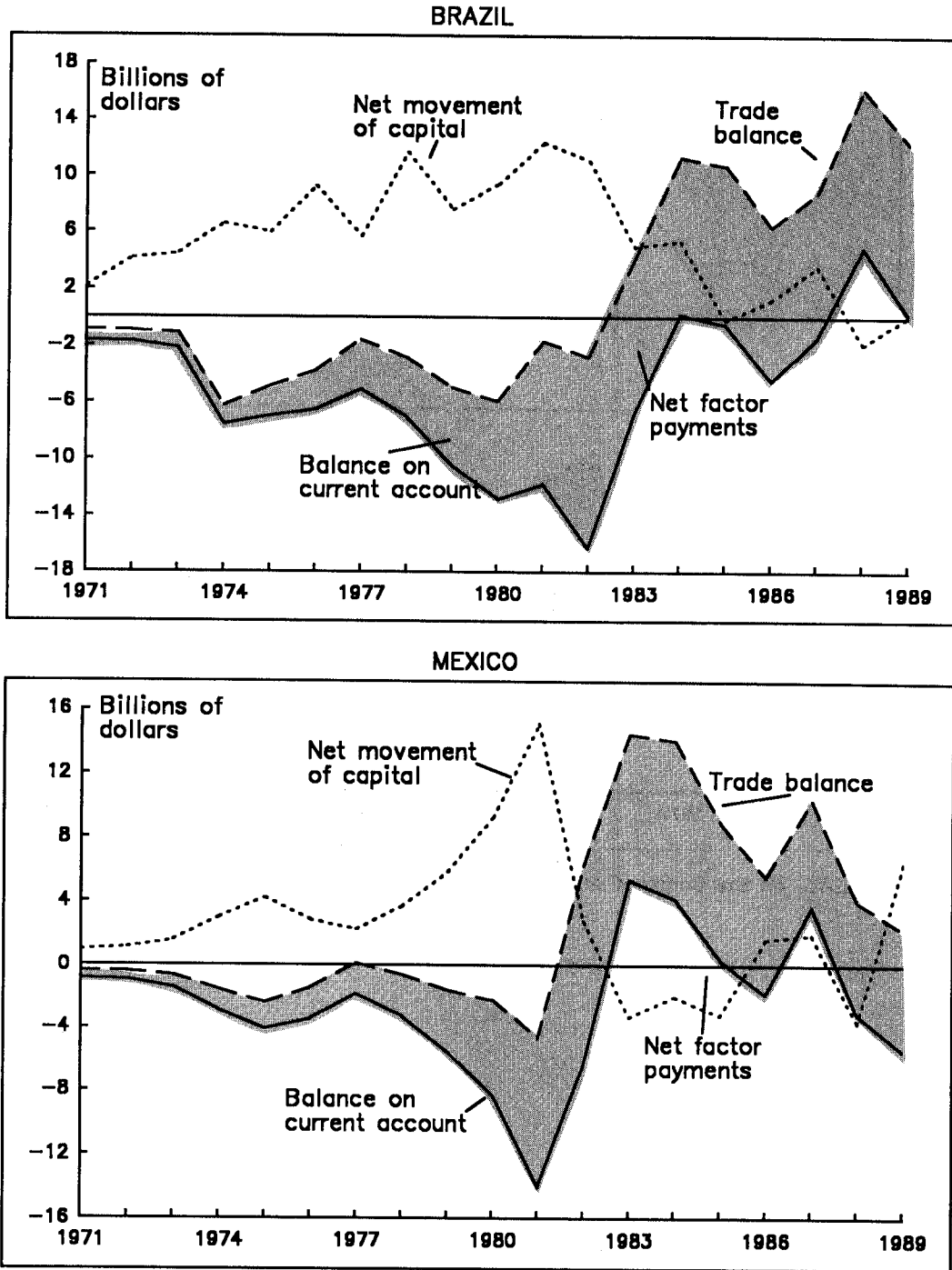
^a Figures correspond to price variations recorded in recent months up to the month indicated for each country. ^b Corresponds to variations between November 1988 and November 1989. ^c Corresponds to variations between July 1988 and July 1989. ^d Until 1979, corresponds to variations in the consumer price index in Rio de Janeiro; from 1980, refers to total national variations. ^e Until 1980, corresponds to variations in the consumer price index for manual workers; from 1981 onwards refers to total national variations including both manual and non-manual workers. ^f Refers to variations between October 1988 and October 1989. ^g Until 1982, refers to variations in the consumer price index in Quito; from 1983 onwards refers to total national variations. ^h Refers to variations between September 1988 and September 1989. ⁱ Until 1982, corresponds to consumer price index variations in Santo Domingo; from 1983 onwards refers to total national variations.

Figure II.4
LATIN AMERICA AND THE CARIBBEAN: MACROECONOMIC INDICATORS



Source: ECLAC, on the basis of official figures.

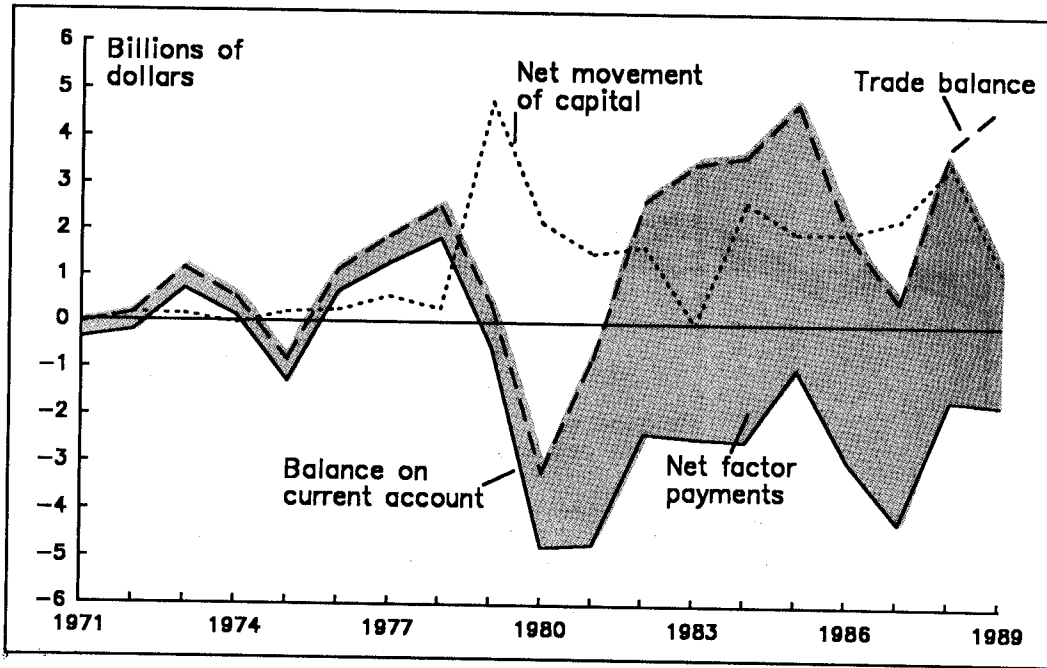
Figure II.5
 BRAZIL AND MEXICO: MACROECONOMIC INDICATORS



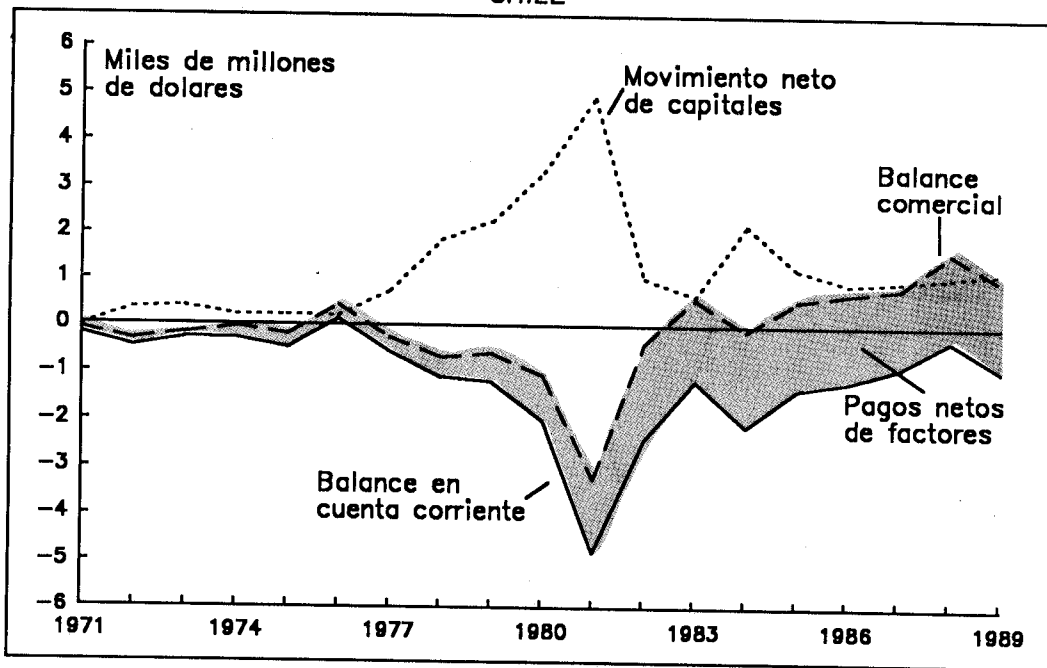
Source: ECLAC, on the basis of official figures.

Figure II.6
 ARGENTINA AND CHILE: MACROECONOMIC INDICATORS

ARGENTINA



CHILE

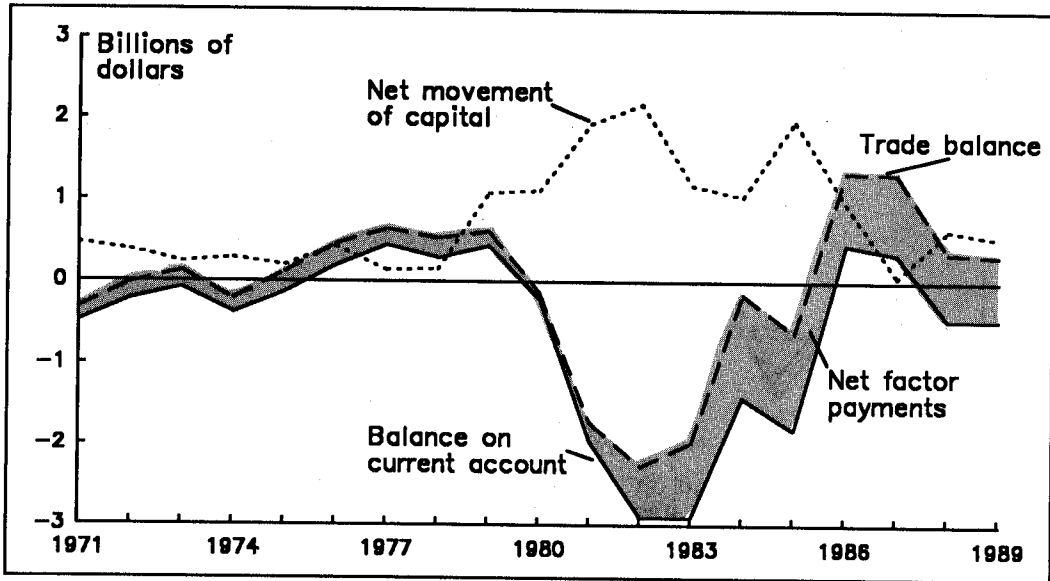


Fuente: CEPAL, sobre la base de cifras oficiales.

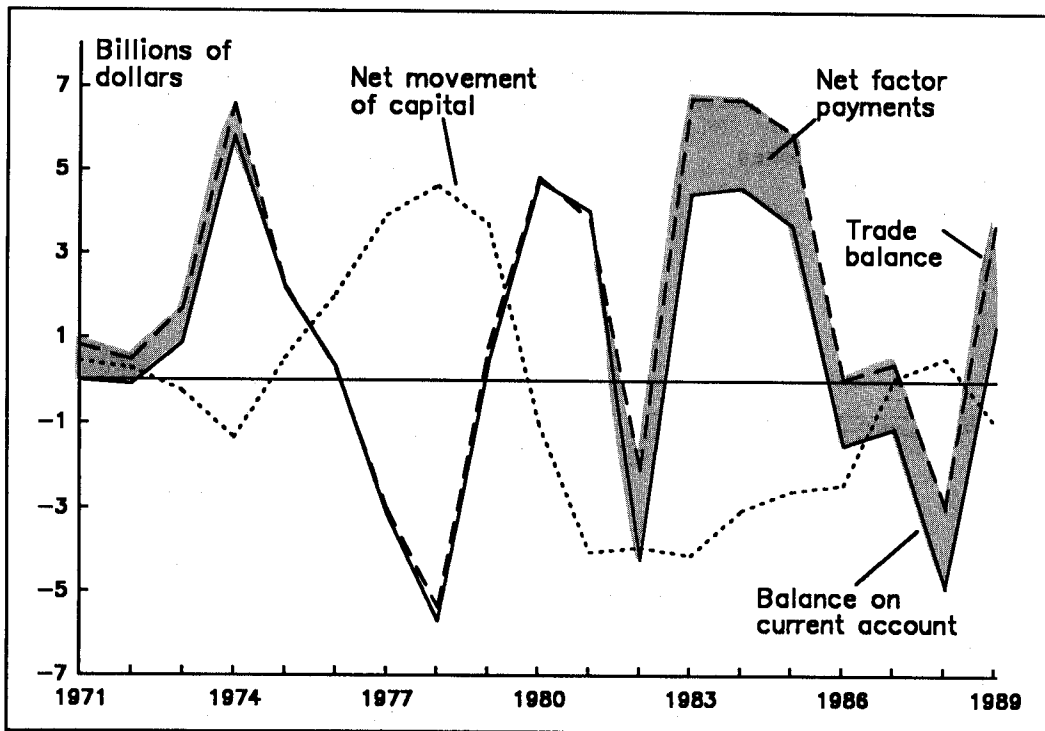
Figure II.7

COLOMBIA AND VENEZUELA: MACROECONOMIC INDICATORS

COLOMBIA



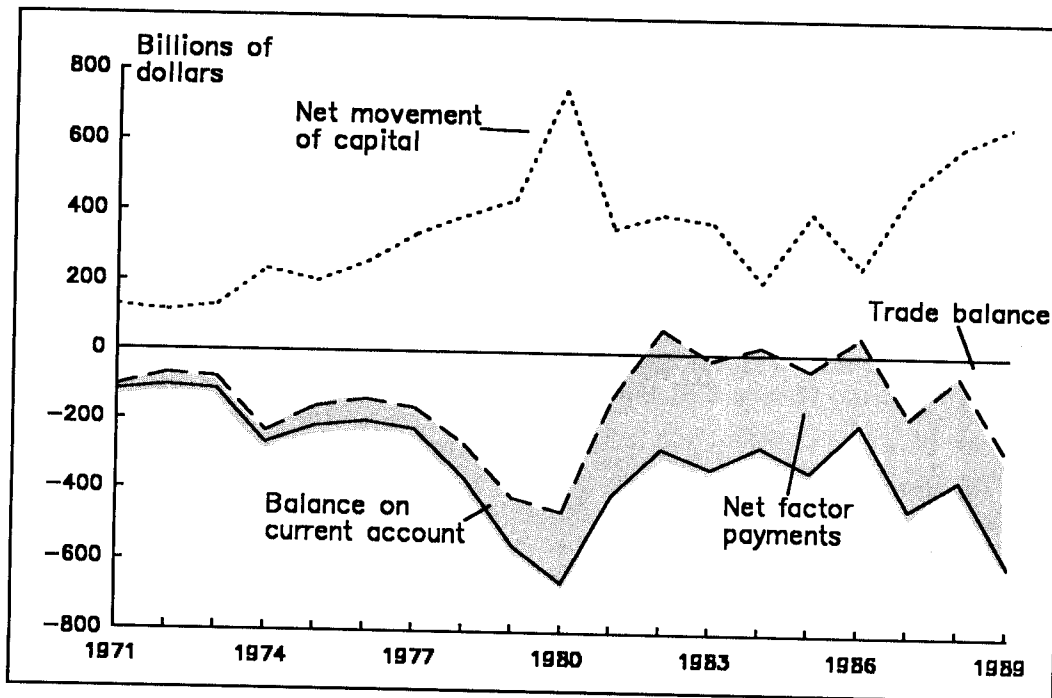
VENEZUELA



Source: ECLAC, on the basis of official figures.

Figure II.8

COSTA RICA: MACROECONOMIC INDICATORS



Source: ECLAC, on the basis of official figures.

The macroeconomic imbalance described above affected virtually all the countries of the region, although to varying degrees, and became one more factor for classifying economies. Thus, to the traditional classifications of large and small countries, relatively highly or less developed countries, countries with high or low export coefficients or degrees of industrialization, net oil-exporting and oil-importing countries, heavily or slightly indebted countries, a new category has now been added: countries that have advanced considerably in applying adjustment programmes and those that have not done so. The economic imbalances had other consequences that are worth mentioning: for instance, economic policies have focused more on correcting short-term imbalances (particularly inflation) than on achieving growth and promoting structural change. Furthermore, the State's ability to handle and conduct economic policy has been considerably weakened by the shortage of foreign exchange.

c) *The regressive nature of adjustment and the deteriorating social situation*

The social cost of the adjustment described in the paragraphs above has fallen disproportionately on workers and the middle-income strata, who have made the bulk of the sacrifice associated with the "stagflation" syndrome. Indeed, one of the most striking aspects of the 1980s is the extent of the adjustment in distribution and the intensity of the sacrifice made by the most under-privileged segments of the population.

The persistence of the demographic trends of previous decades helps to explain the regressive nature of the adjustment. Although the majority of the economies stopped growing, the population continued to increase. At the beginning of the decade, there were 362 million people in the region; by the end of it, they had increased to 448 million. Furthermore, as a result of the gradual incorporation of women into the labour market in addition to the

population growth rate of previous periods, the economically active population grew at an average rate of 2.8% a year. In general, the figures available show that although open unemployment increased, it was not proportional to the decline in economic activity. A bigger increase in unemployment was partially avoided at the cost of a deterioration in the quality of jobs (especially in urban areas), an increase in jobs in small and micro businesses (probably stimulated by the decline in real wages), and a rise in the number of own-account workers. In other words, there was rapid growth in the informal labour market, and the relative volume of jobs grew most in the sectors where there was the greatest deterioration in the level and stability of income.

The slowdown in economic growth, the above-mentioned changes in the employment situation (which were accompanied by a deterioration in real wages in most of the countries), and cuts in public spending were jointly responsible, one way or another, for the increase in extreme poverty, particularly in urban areas. It is estimated in very general terms that in 1980 some 112 million people of Latin America and the Caribbean (35% of the households) were living below the poverty line; by 1986 this figure had increased to 164 million, representing approximately 38% of the households. Also, in the vast majority of the countries there were islets of modern production, generally associated with the export of non-traditional goods, which were in sharp contrast to the picture of backwardness painted in the preceding paragraphs.

The rates of participation of mothers rose significantly in most of the countries of the region, reflecting a major effort to supplement household income and thus sustain some of the progress achieved by families in the previous decades. It is possible that such incorporation of mothers into the labour market has weakened some of their family functions with respect to socialization and child care and protection. On the other hand, young people have found themselves denied access to the labour market at levels commensurate with their years of education, and they are increasingly exposed to patterns of consumption further and further beyond their means.

The deterioration in the standard of living, coupled with the frustrations of youth, has frequently led to social tension, one of the many signs of which is the increased delinquency, particularly in large cities.

Another indication of the region's economic and social decline is the ever-increasing number of Latin American and Caribbean migrants, especially to the United States and Canada. This phenomenon is in addition to the migratory movements caused by political and military conflicts, as in the case of the displaced persons and refugees in Central America.

The economic crisis has weakened the capacity of substantial segments of the population to acquire services on the market, and so there has been a rise in the demand for public services in such vital areas as education and health, but at the same time the tight financial restrictions on the State sector have caused significant reductions in per capita spending in these fields in most of the countries of the region. Parallel with this, and also probably as a result of budget restrictions, the salaries of civil servants have deteriorated faster than those of workers in other sectors of the economy. Despite this negative economic setting, however, there has been a rise in the number of personnel per potential user (ratios of doctors to patients and teachers to pupils) in each of these social areas, while some major indicators of results have also improved: infant mortality has declined, more students are enrolled in the secondary and tertiary levels of education, and more pupils move on from the primary to the secondary levels.

A balanced examination of this background information from the point of view of welfare and equity should take into account at least three factors. First, through either the improved focussing of services, greater administrative efficiency, or the introduction of technological innovations that have brought down the cost of the infrastructure required for providing essential services, some countries of the region have managed to improve the efficiency of current public expenditure in the social field and thus counterbalanced the effects of the reduction in spending (for example, by using oral rehydration therapy to treat diseases that affect infant mortality). Secondly, the reduction in the real wages of civil servants, including teachers and health workers, has not led to a

reduction in the ratios of doctors to patients or teachers to pupils: such ratios have in fact increased in some countries. This may indicate, however, that the increase in potential coverage of services may have been achieved at the cost of a gradual deterioration in their quality and, in the field of education, perhaps to a growing discrepancy between the education offered and the requirements of the changes which are foreseen. There are also grounds for assuming that there may be growing shortages of resources in teaching and health care. Thirdly, the consequences for the welfare of the population likely to result from the halting of investments in facilities or technological resources can only be felt during the next decade, but they will have extremely adverse potential implications for changes in the pattern of production.

d) *Weakening of the public sector*

With very, very few exceptions, the public sectors of the region went into crisis during the decade. The excesses that had been committed in previous decades, reflected in bureaucracy, inefficiency and misallocation of resources, were painfully highlighted by the serious financial restrictions which characterized the economic situation of most of the region's countries in the 1980s.

At the beginning of the crisis, there was a slump in the collection of fiscal revenue as a result of the recession, and tax reforms were implemented to try to counteract its effects. Likewise, public service tariffs generally lagged behind during periods of inflation, while current expenditure tended to grow, partly as a result of interest payments on the internal and external public debt. The financial burden of the external debt increased in terms of national currency as a result of successive devaluations and rises in international interest rates, as also did the burden of the domestic debt, mostly as a result of exceptionally high interest rates. In the face of the increasing current account deficits which characterized the regional situation throughout the decade, it was decided to slash allocations in areas considered most expendable but whose social cost was high, i.e., public investment and social spending.

The financial problems mentioned above revealed the shortcomings or waste that already existed and, in many cases, also the critical need

to reform and modernize the public sector and strengthen the State's capacity to govern. The main options for attaining this goal were the liberalization of regulations, the sale of franchises, and especially the privatization of public enterprises. In some cases – the least numerous – it was decided to privatize public enterprises with the explicit aim of reducing the size of the State sector, but in the majority of cases, this was an expedient to readjust the State's involvement to the situation of financial austerity and ensure that its activities were carried on in a smaller field and were implemented more effectively and efficiently. It also served as an expedient to cover up the withdrawal of certain subsidies from various groups of the population.

At all events, the weakening of government action during the 1980s means that, in the future, the restructuring of the public sector in general and the modernization of tax systems in particular will be topics of vital importance in economic policy.

e) *The steep decline in investment*

A phenomenon linked with the gradual slowdown in the Latin American and Caribbean economies in the 1980s was the marked decline in net investment in many countries. In previous decades, the expansion in productive capacity – both for export and for internal supply – had been based on a relatively high and rising level of private and public investment, which stood at between 22% and 25% of the gross domestic product (see figure II.9).

The situation in the 1980s was very different. As a result of the decline in the terms of trade and the rising external debt service, which was accompanied almost always by a decline in the inflow of external capital, net potential investment resources shrank considerably. Thus, the region's net investment coefficient dropped from nearly 23% in 1980 to 16.5% in 1988 (see table II.5 and figure II.9). This phenomenon affected the majority of the countries, although not all of them. It also reflects the generally adverse evolution of public finances that has already been mentioned.

Furthermore, the way in which the fiscal deficit was financed created unfavourable expectations, made private investments

difficult, reduced the public sector's financial leeway and, in general, created a vicious circle that fuelled the crisis. Thus, in some cases the availability of credit for the private sector was reduced through the use of forced savings mechanisms within a context of financial repression which provoked flights of capital. In other cases, public debt certificates were issued in situations where they helped to significantly increase interest rates while at the same time generating expectations of future taxes. There were also cases where money was simply printed as required, thus stimulating demand,

raising inflation and causing a foreign exchange crisis. Many countries are currently faced with the problem of increasingly obsolescent production facilities and an alarming deterioration in the physical infrastructure as a result of the above-mentioned trends.

The following chapters will examine how such characteristics of the current Latin American and Caribbean economies hinder development, and proposals will be put forward on how to overcome these problems.

Table II.5
LATIN AMERICA: INVESTMENT COEFFICIENT
(Gross fixed investment as a percentage of the gross domestic products)^a

	1980	1981	1982	1983	1984	1985	1986	1987	1988 ^b	1989 ^b
Latin America	22.7	22.5	20.0	16.6	15.9	16.2	16.8	16.8	16.5	16.4
Argentina	22.2	19.6	15.1	14.0	12.4	11.5	11.8	13.2	11.7	9.9
Bolivia	14.2	13.8	10.2	11.0	10.4	9.5	9.5	9.7	9.6	10.1
Brazil	22.9	21.0	19.5	16.9	16.2	16.7	19.0	18.3	17.6	17.7
Colombia	16.8	17.4	17.8	17.6	17.2	15.7	15.8	14.9	15.3	14.9
Costa Rica	23.9	18.4	14.3	15.1	17.7	18.5	19.0	20.4	18.7	18.6
Chile	16.6	18.5	14.0	12.0	12.3	13.8	14.1	15.5	16.0	17.2
Ecuador	23.6	21.1	21.0	15.7	14.3	14.6	14.5	17.0	13.8	12.9
El Salvador	13.6	13.2	12.6	11.6	11.6	12.6	13.4	14.3	13.9	13.8
Guatemala	16.4	17.5	16.2	12.0	10.9	10.3	10.7	11.9	12.9	14.2
Haiti	16.9	20.4	18.2	18.3	18.8	20.7	20.3	19.9	18.9	19.6
Honduras	24.2	18.6	15.6	17.9	20.9	20.0	16.5	14.8	15.6	15.5
Mexico	24.8	26.5	22.2	16.6	17.0	17.9	16.4	16.1	16.9	17.8
Nicaragua	14.6	22.2	18.0	18.0	18.7	19.8	18.7	19.1	20.9	18.6
Panama	24.3	27.3	26.3	20.4	19.0	19.4	20.6	20.2	10.6	10.4
Paraguay	27.2	29.5	24.3	20.6	20.1	19.4	20.0	20.4	19.8	19.8
Peru	23.5	26.1	25.5	20.5	18.4	16.1	17.7	18.9	18.0	...
Dominican Republic	23.6	20.8	17.8	19.7	19.8	18.9	20.4	26.3	28.3	...
Uruguay	16.7	16.0	15.1	10.8	9.5	7.3	7.6	8.6	8.9	9.0
Venezuela	25.2	26.3	25.6	19.9	16.4	17.1	18.4	17.8	17.9	14.5

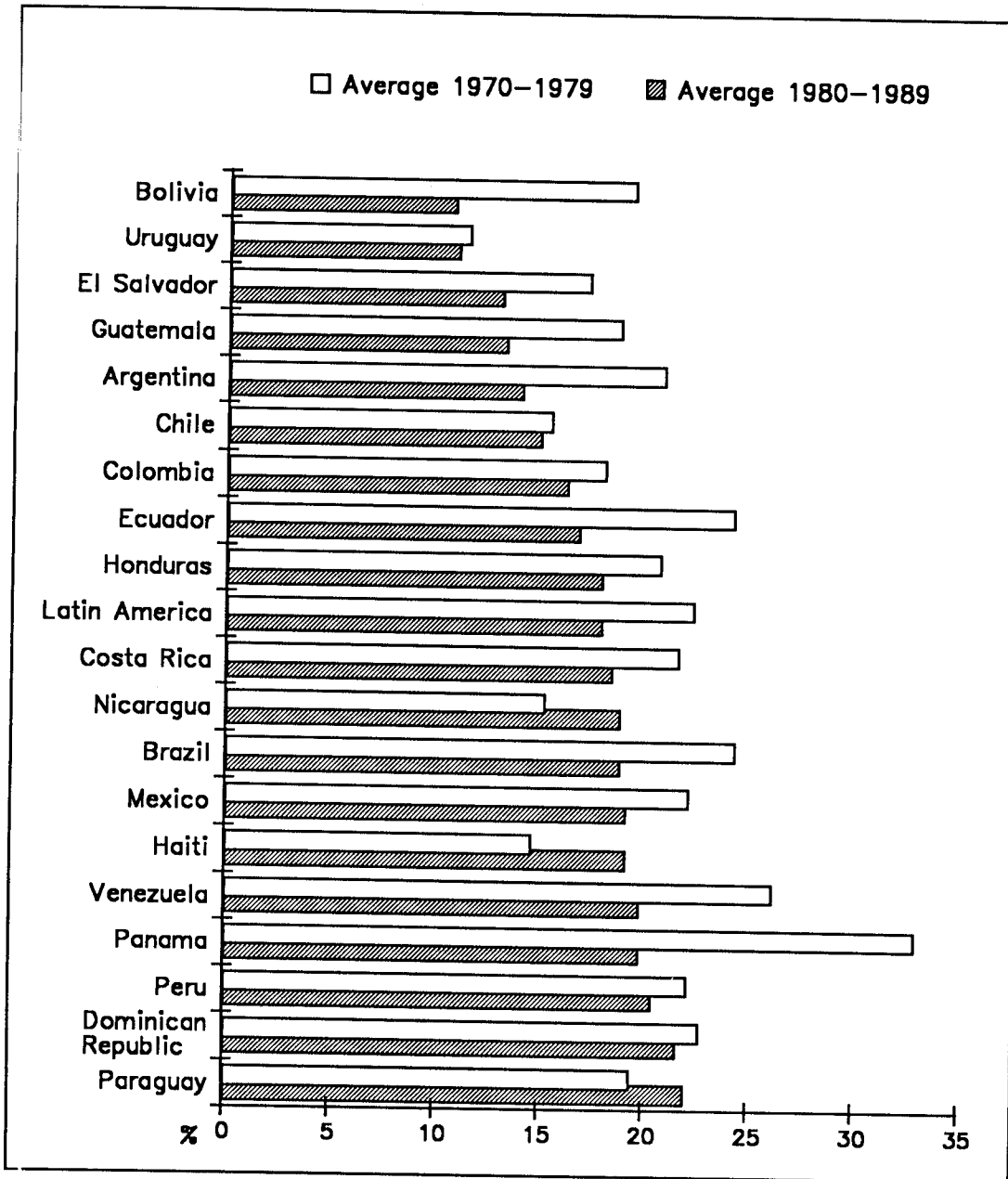
Source: ECLAC, on the basis of official figures.

^a Gross fixed investment equals gross domestic investment less accumulated stocks.

^b Preliminary figures.

Figure II.9

LATIN AMERICA: GROSS FIXED CAPITAL INVESTMENT AS A PERCENTAGE OF THE GROSS DOMESTIC PRODUCT



Source: ECLAC, on the basis of official figures.

III. THE MAIN CONDITIONS FOR CHANGING PRODUCTION PATTERNS WITH SOCIAL EQUITY

In the following chapters of this document, strong emphasis is placed on the domestic effort needed to reverse the crisis of the 1980s, and proposals aimed at changing production patterns within a context of greater social equity are explored. No matter how great and well-conceived this effort may be, however, its results will depend on a certain minimum set of conditions regarding the functioning of the world economy. In other words, the *external environment* will continue to exert a decisive influence on the performance of the economies of the region. The international economy is therefore one of the factors conditioning the degree of success that the Latin American and Caribbean countries can achieve in bringing about changes in production patterns together with social equity.

The conditions of the external environment are intertwined with others of domestic origin which they help to intensify. Among the latter are, in particular, the maintenance of the

macroeconomic balances, which involves the solution of one of the outstanding problems of the 1980s; the improvement of *development financing* in contrast with the severe restrictions imposed in recent years by the transfer of financial resources abroad, and, finally, the *maintenance of social cohesion and the consolidation of the processes of democratization*, all of which can have unsuspected repercussions on the formulation and application of economic policies and strategies. The strategy of change in production patterns proposed in this document is conceived within the framework of these initial conditioning factors, but its content is also aimed at ensuring the long-term stability of the macroeconomic balances and attaining greater social consensus.

The sections below contain some comments and appraisals on each of these factors conditioning change in the region's production patterns with social equity.

A. THE INTERNATIONAL ENVIRONMENT

1. The external environment and the economic evolution of Latin America and the Caribbean

The influence of the external environment on the economic evolution of the region has always been of fundamental importance. There is no need to go back to the primary export economies of the 19th century and the early 20th century or to go into detail about the process of industrialization through import substitution, for there are more recent situations which back up this assertion.

It is sufficient to recall the early years of the 1980s, when there were striking turnarounds in the economic policy of the developed countries, which sought to combat their situations of stagflation through restrictive monetary policies. In the United States in particular, where inflation had reached unprecedented levels, the very sharp rise in interest rates, together with the rise in the value of the dollar, succeeded in checking the inflationary tendencies, but only at the cost of a recession which was paralleled to a greater or lesser

extent in all the countries of the Organization for Economic Co-operation and Development (OECD) during the period 1981-1982. There is no need to enlarge on the dramatic subsequent results of this turnaround – especially for Latin America and the Caribbean – since they are all too well known.

The current phase of expansion in the economic activity of the developed countries has been the longest since the end of the war, although in the 1980s the growth rate has been slower than in previous decades and many official sources forecast that it will go down still further in 1990.¹ The dynamism shown by the economies of the OECD countries, as well as by the recently industrialized nations, especially those of southeast Asia, has been reflected in a significant increase in the volume and value of world trade. Most of the countries of Latin America and the Caribbean were not in a position to take full advantage of the potential impulse offered by this expansion, however. Whereas in the 1960s and 1970s the growth rate of the countries of Latin America was higher than that of the OECD nations,² in the 1980s this situation was abruptly reversed and the growth rate of the industrialized countries was three times that of our region.

Furthermore, the instability and uncertainty implicit in the new practices of giving interest rates and exchange rates an increasingly important role as variables determining the adjustment of international trade relations have meant that the "old order" which was set up at Bretton Woods and remained in force until 1971 has gradually been replaced by a system of "controlled instability". Although there has been a trend towards some degree of co-ordination of economic policies by the seven main OECD countries since 1975, in recent years the fiscal, trade and exchange imbalances between the great creditor countries with massive trade surpluses (Japan and West Germany) and the great debtor country with a trade deficit (the United States) have contributed to this climate of uncertainty.

In addition, there are still further phenomena which have contributed to this state of affairs.

As we enter the 1990s, the main factor of future change in the world economy will be the consolidation and further expansion of the new technologies which are making their appearance, with all their repercussions in the reorientation of forms of production and marketing at the world level. Another tendency which is likely to spread in the 1990s is the consolidation or emergence of great economic blocs in the developed world. The European Economic Community (EEC) will complete its process of unification – including unification in the monetary field – in 1992. The United States and Canada are building up another powerful bloc whose "field of gravity" may increasingly include some other economies of the region, especially Mexico. The possibilities of a free trade association between various countries of the Pacific are also being explored.

No less important than this is the astounding acceleration of political détente between East and West, with striking trends towards liberalization among the countries forming part of the Council for Mutual Economic Assistance (CMEA). The repercussions of these trends may come to be of crucial importance, especially in relations between Eastern and Western Europe. The impact of this process on Latin America and the Caribbean is difficult to predict, however, for although on the one hand this détente will increase world trade and investment, on the other hand Eastern Europe will absorb capital for its own process of economic change and will therefore be competing with our region for the available resources. The question of which of these effects will predominate – that is to say, the expansion of world trade or the diversion of financial resources – will depend largely on whether or not it is possible to achieve a satisfactory solution regarding the reduction of the region's external debt so as to eliminate or drastically reduce the negative resource transfer; in addition, it will depend on the capacity and possibilities of the countries of the region to take advantage of the new trade opportunities and to overcome the existing trade barriers by negotiating their reduction or elimination.

1 Including the OECD itself, the World Bank, the International Monetary Fund (IMF) and the United Nations.

2 During the 1960s the region's GDP grew at an annual average rate of 5.6%, which compares favourably with the rate of 4.8% registered by the OECD countries. The situation was similar in the 1970s, with rates of 5.9% and 3.2%, respectively. In the 1980s, however, the regional growth rate was less than 1% per year, whereas the rate for the OECD countries was nearly 2.7%.

Finally, another source of major changes in the economic situation of the future will be the growing economic differentiation among the developing countries. The newly industrialized countries of southeast Asia have escaped from their peripheral position in the world division of production and have become major exporters of manufactures. Other great countries of Asia such as China and India are speeding up the diversification of their productive structures and going out to compete on the world market for manufactures. The oil-exporting countries, for their part, continue to form a separate group, although their international weight is now somewhat less. Finally, there are still many Asian and –in particular– African countries which occupy more traditionally peripheral positions. Against this background, Latin America and the Caribbean, as a semi-industrialized developing region, continues to occupy a peripheral position in the world division of production, with more than 70% of its exports made up of primary commodities (including fuels).

2. Structural aspects of international trade and the Latin American and Caribbean position

Over the four-year period 1986-1989, the growth rates of the volume of imports of the developed countries have been much higher than expected, ranging between 6.5% and 9%. Thus, trade has grown more rapidly than the product. Against this background of recent global dynamism, it is worth taking a quick look at the nature and breakdown of the fastest-growing segments of international trade.

If we look at the trends over the period 1962-1985, we see that the growth rate of exports of primary commodities (1.6%) was less than that of natural-resource-based manufactures (mainly processed foodstuffs), which grew at the rate of 3.7%. Traditional non-natural-resource-based manufactures, for their part (mainly labour-intensive consumer goods), grew at the rate of 6.8%, while the highest growth rate, 8.1%, was registered by the new manufactures heavily reliant on research and development (microelectronics, telematics, biotechnology, genetic engineering and new materials).

It should be noted that the new waves of technical progress are not only reflected in the appearance of new products, but also in the reorganization of the production of traditional goods through new processes (robotization, digital control, "just in time" production techniques which make it possible to reduce stocks considerably, and the emergence of new species through genetic engineering) which alter the relative degree of use of the different factors or the types of imports required. This has given rise to another challenge which must be suitably faced by all the developing countries and by Latin America and the Caribbean in particular.

As already noted, generally speaking the countries of Latin America and the Caribbean have specialized precisely in the export of those goods whose international trade is least dynamic. Paradoxically, it is also these goods which tend to run into special trade barriers in the developed countries, and trade in them is usually particularly prone to non-tariff restrictions.

Much of the trade in high-technology products is the material basis for the growing trade in non-factor services associated with the expansion of telecommunications and telematics and the cross-border circulation of all kinds of information traded on the international market. The big transnational expansion of banking and finance is also based to a considerable extent on these new technical facilities.

These trends in international trade and the reorganization of production are the frame of reference in which the efforts of Latin America and the Caribbean to transform and modernize their production must fit, apart from what may be achieved through international economic negotiations, particularly those of the Uruguay Round of GATT. In the final analysis, gaining access to the most dynamic markets means incorporating technologies which are under a high degree of transnational control. Without a regional-level effort in the field of research and development supported by or linked with international technical co-operation and, sometimes, foreign direct investment, it will be difficult to gain a significant share in the expansion of these markets.

3. Basic commodities in the exports of Latin America and the Caribbean

World trade trends are undermining traditional forms of specialization in the production of basic commodities and changing the relative importance of the respective markets. The medium- and long-term projections prepared by the main multilateral agencies generally agree that there are no grounds for expecting a significant recovery in the real prices of most primary commodities, with the important exception of fuels. This whole process has been heavily influenced by the growing weight of the developed countries in temperate-zone agricultural production.

With regard to imports, the relative share of the developing countries has increased compared with that of the developed nations. This fact is of vital importance for evaluating the location of the most dynamic markets for basic commodities. Although it still represents only one-third of the total world market, the developing countries' demand for this type of products – foodstuffs, agricultural raw materials and minerals – is growing three times faster than that of the developed countries.

On the other hand, the trends already referred to in the technical progress of the developed countries are tending to bring down the cost of labour, of primary inputs and of energy per unit of final manufacturing product. The growing recycling of waste materials, the miniaturization of products, the replacement of traditional materials by new artificial products and the greater efficiency in the use of inputs – together with the smaller stocks required for the production cycles – all contribute to this trend.

In the case of traditional tropical-zone food products (coffee, cane sugar, cocoa, bananas) the consumer market in the developed countries is beginning to show signs of saturation, with levels of income elasticity that are extremely low or even negative. The effects of substitution are also beginning to be felt in the case of some products, as for example the use of fructose instead of sugar or the growing use of vegetable oils other than those extracted from cocoa beans in the manufacture of chocolate. In both cases, some of the products which can be used as substitutes, such as maize and soya beans, are temperate-zone foods

produced on a large scale by some of the developed countries themselves.

Despite the undeniable problems arising from the global situation in question, the above-mentioned changes will nevertheless create new market opportunities for commodities in the fields of both foodstuffs and raw materials. These opportunities must not be wasted, especially as increased export possibilities may arise in the short or medium term without necessarily involving the need for foreign capital or technology.

Apart from taking advantage of some favourable aspects of specific markets (the so-called "niches"), the developing countries will undoubtedly need to keep a close watch on the profound changes taking place in the industrial activities of the centres. This is particularly important in the field of new materials, so as to be able to anticipate future demand trends for the imports required for the manufacture of fibers, the new ceramic materials, plastics and other compounds, and the ways in which these trends are likely to affect demand for traditional raw materials.

The differing forms of evolution of the markets in the developed and developing countries may help in this transition. Thus, the traditional primary products will probably remain in demand longer in the developing world, in contrast with the slackening of demand for them in the more developed countries as the new waves of technological progress continue to transform their industrial systems. In this respect, proper use of the Latin American and Caribbean market itself would appear to be an option that should clearly be explored. Indeed, this option could assume great importance when the economies of the region overcome their present crisis and resume the minimum rates of development required.

4. Protectionism as a tax on changing production patterns

The protectionist barriers erected in the markets of the developed countries are an important factor standing in the way of the potentially positive effect of the growth of international trade on the transformation of the production patterns of Latin America and the Caribbean.

In the GATT negotiations, the developing countries have drawn attention to various international trade problems which are adversely affecting multilateral discipline. Among these are the failure of various measures based on the standstill principle and aimed at the removal of existing restrictions, such as those applied to the trade in textiles and clothing and the promised liberalization of the trade in agricultural products; the fact that agreement has not been reached on a binding code regarding countervailing duties; the absence of binding GATT rules on agricultural products; and the lack of special measures to reduce the use of progressively rising tariffs and voluntary export restrictions.

At the same time, during the period 1973-1983 the developed countries substantially increased their direct subsidies to the industrial sector, while subsequently they have tended to replace them with protectionist measures against imports, especially in those branches where the developing countries have most interest in promoting their exports. Among these measures, special mention may be made of quantitative import restrictions and import surcharges and taxes. The number of anti-dumping measures and countervailing duties imposed by the developed countries has increased, and their economic and technological impact has also grown. At the same time, however, the developing countries as a whole have tended to reduce their restrictions on trade and on international service transactions.

The trade barriers applied by the developed countries tend to be greater with regard to imports of manufactures from developing countries than those from other developed countries, and the tariffs applied under the most-favoured-nation principle tend to be higher in the case of products exported on a substantial scale by the developing countries. The highest rates are frequently concentrated in textiles, clothing, footwear and some petrochemical products of interest to the developing countries, while the Generalized System of Preferences frequently excludes the developing countries' main industrial exports.

A particularly serious matter is that of the differential protectionism against products of higher added value which could be exported competitively by the developing countries. In

practice, this type of protectionism is a veritable international tax on increased added value: that is to say, a tax on changes in production patterns. The selective protectionism applied to the developing countries impedes the emergence of new exporters who often try to take over the positions that the newly industrialized countries abandoned precisely because of such protectionism.

In the last few years, the fear has arisen that economic and trade blocs may be created because of the increase in bilateral trade agreements, the adoption of bilateral reprisals, and some trade measures adopted within the regional groupings. The U.S. Omnibus Trade Expansion and Competitiveness Act of 1988 provides for the holding of bilateral negotiations to improve market access, and if these negotiations do not go well this could have a significant impact on the region's external trade with that country. Likewise, in accordance with the Single European Act of 1986, the EEC will form a single internal market in 1992. The programme of reforms of the internal regulations governing the movement of goods and services will affect trade practices and their effect on the degree of openness of the European market can only be a matter of conjecture.

With regard to the trade in services, the negotiations are currently in full swing. In this connection, the developing countries have put forward several desirable conditions, including relative reciprocity, the undesirability of automatically transferring the rules on the trade in goods to the trade in services, non-discrimination between factors, and the establishment of strict discipline and objective criteria for the application of anti-dumping measures.

5. The main challenges in the area of international finances and the external debt problem

Within the present international financial system there are various features worthy of special consideration from the point of view of their effects on Latin America and the Caribbean. Firstly, the various national currencies used as international reserves are constantly subject to different degrees of exchange instability, which are kept within margins considered to be acceptable by the

governments of the Group of Seven through the co-ordinated action of their central banks. In practice, what is operating is a system based on a U.S. dollar standard with varying exchange parities, within which the German mark and the Japanese yen are other important reserve currencies while the role played by Special Drawing Rights (SDR) is of little significance. These exchange variations change the competitiveness of Latin American and Caribbean exports within extremely short spaces of time.

Secondly, the creation of international liquidity is irregular and is largely dominated by the actions of national and transnational private agents, with supranational control over this function being quite limited. Even the actions of the monetary authorities of the Group of Seven have little influence in this process. Furthermore, the expansion of international liquidity is not regulated as a function of the development of the world economy and still less as a function of the special needs of the developing countries.

Thirdly, the history of international finance in recent years has been characterized by serious imbalances in the external accounts of some industrialized countries, while the demands made on the countries to correct their macroeconomic imbalances are structurally asymmetrical. At the present time, the United States trade and fiscal deficits have been fluctuating around US\$10 billion per month, which represents a situation of serious imbalance. This can only be maintained and financed through capital transfers in amounts similar to those mentioned above, which are generated in the two great economies registering sustained balance-of-payments surpluses, namely Japan, followed by the Federal Republic of Germany. This heavy transfer of resources among the three main market-economy industrialized nations, although mostly carried out in the form of loans, also takes place through the growing foreign investments in the United States. An eloquent illustration of that curious form of equilibrium, which has already been kept up for eight years now, is that on the one hand the total federal debt of the United States is estimated to be close to its annual gross domestic product, while on the other hand the commercial banks of

Japan have come to occupy a dominant position in world financial affairs, to such a point that of the ten largest commercial banks in the world, nine are from that country.

At the same time, in order to make this transfer of capital resources from Japan and West Germany to the United States attractive and feasible, it is necessary that the interest rates on loans and the profitability of investments in the sphere of international finances should be relatively high in real terms. Thus, the flow of resources to the United States, which is a prime debtor with great economic potential, in practice establishes a minimum internationally acceptable level of capital yield.

This is the context of the real and financial problems generated by the external indebtedness of the countries of Latin America and the Caribbean and especially of those countries which are heavily indebted to the international private banking system. Whereas this debt gives rise to heavy servicing commitments, new financing has significantly contracted, and in the case of most of the countries of the region the private banks limit themselves to making a few "involuntary" loans in connection with the restructuring of the debt. At the same time, the contribution of the multilateral credit agencies has gone down – and even in many cases become negative – while the payments of interest and principal on the debts accumulated in previous periods are constantly growing. Likewise, the financial contribution made by foreign direct investment has gone down as part of the general situation of recession characterizing the region.

As a result of the simultaneous presence of the foregoing elements, together with the generally unfavourable trading situation of the countries of the region, exemplified by the deterioration in the terms of trade, an unprecedented state of affairs has arisen in the 1980s whereby Latin America and the Caribbean as a whole have become a region which is a net exporter of financial resources. Thus, it is calculated that in the last eight years this cumulative transfer came to over US\$200 billion. The excessive level of indebtedness has played a decisive role in this phenomenon, so that finding a solution to that problem has assumed top priority in the external economic relations of most of the countries of the region.³

³ See, in this respect, ECLAC: *Latin America and the Caribbean: Options for reducing the debt burden* (LC/G.1605(SES.23/5)), Santiago, Chile, February 1990.

With regard to possible external financing for Latin America from the multilateral credit agencies, it is true that the emergence of more favourable prospects will depend largely on the effectiveness of the adjustment policies followed in the various countries of the region and on their effective generation of suitable investment and development projects. It is equally true, however, that those agencies need to replenish their capital in order to be in a position to meet the growing demand for fresh financial resources.

6. Foreign direct investment and access to technology

The share of Latin America and the Caribbean in total world direct investment has gone down substantially since the onset of the external debt crisis, so that in the period 1986-1987 it came to only 5.3%, compared with 12-13% in the period 1977-1981.

The transformation of the region's production patterns could benefit from an increase in foreign direct investment in sectors that further the introduction of technical change and especially those that generate exports. This would also offer possibilities of trying out new forms of association between national and external capital.

Forms of foreign direct investment capable of furthering the above objective must promote an effective contribution of capital, technology and managerial capacity to the recipient economies, as well as possibly facilitating access to external markets. In this respect, it is the responsibility of the various national legislations to establish suitable systems of incentives and regulation of the foreign investments which may be received by the various Latin American countries.

There are two aspects which call for comment in this connection. On the one hand, it would seem obvious that foreign investments can play a more dynamic role of supplementing investments and favouring technological innovation if they really do represent new investments and not the mere purchase of existing assets and/or enterprises. On the other hand, when foreign investments arise from external debt conversion operations and the investors acquire the debt paper on the market at a price far below its nominal value, in practice this represents a revaluation of it, because the value fixed by the authorities for them is close to their nominal value. When this takes place, all that is happening is that external indebtedness is being replaced by foreign investment without permitting the debtor country to share in even part of the discount at which the external debt paper is being traded on the secondary markets.

In the area of technology, the developing countries are faced with a variety of obstacles to their access to modern technology, especially as regards information systems, since such access is conditioned or influenced by financial, technical or legal factors. In this respect, the developing countries have pointed out the need to prohibit measures and practices which restrict or impede access to information networks and distribution services, as well as to the technical innovations in this sector; to eliminate measures which impede or limit free choice in the acquisition of technology or restrict access through price manipulation; to facilitate the training of local personnel; to promote the participation of national suppliers in the research and development activities of foreign suppliers; and to establish focal points on the supply of technological services in the industrialized countries and on the demand for such services in the developing countries.

B. THE MACROECONOMIC BALANCES

In the 1980s, macroeconomic imbalances reached unprecedented levels. Moreover, these imbalances occurred simultaneously on the external, fiscal and production levels, being reflected in the form of foreign exchange

constraints, high rates of inflation, low investment and underutilization of installed capacity. Furthermore, as noted in the preceding chapter, both the outbreaks of inflation and the attempt to restore a balance

involved huge social costs which resulted in practice in still greater inequalities.

A central lesson which emerges from the experience of the 1980s is that, in order to grow in a solid and sustained manner, it is essential to maintain the macroeconomic balances. Between 1950 and the first oil crisis, the region suffered from chronic inflation of around 20% per year – although the current account deficits were less than 1% of the gross domestic product – but this did not prevent solid, sustained growth of 2.5% per year in the per capita product (see table III.1). In the 1980s, however, many countries registered current account deficits equivalent to over 4% of the product and inflation rates of three and even four digits: imbalances which clearly go beyond all tolerable limits, both economically and socially. Indeed, such imbalances make it virtually impossible to carry out the rational processes of calculation or economic evaluation needed in order to effect transactions and investment plans.

The experience of the region also shows that it is not only the macroeconomic upsets themselves which are costly, but also the programmes that have to be applied to restore a balance, for although it is theoretically possible to design non-recessive stabilization and adjustment programmes, in practice such programmes have turned out to have contractionary effects, and this is particularly marked in the case of external imbalances, since the longer they last, the more costly the subsequent adjustment is. Moreover, the confidence and credibility needed to ensure the resumption of solid growth are not recovered instantly through the restoration of the basic balances, but require that the latter should be fully consolidated, as shown by the experiences of Bolivia after 1985 and Mexico after 1987. Finally, when one stabilization attempt fails, the next attempt made is likely to be even more costly, as suggested by the various stabilization efforts made after the failure of the Austral, Cruzado and Inti plans in Argentina, Brazil and Peru, respectively.

Table III.1
LATIN AMERICA: GROWTH, INFLATION AND EXTERNAL IMBALANCES,
1950-1988
(Annual averages for each period)

	1950- 1954	1955- 1959	1960- 1964	1965- 1969	1970- 1974	1975- 1979	1980- 1981	1982- 1988
1. Annual growth rate of per capita GDP	2.0	1.9	2.8	2.7	4.3	3.1	1.0	-0.8
2. Annual rate of inflation ^a	13	17	25	19	23	50	57	240
3. Current account deficit/GDP	0.3	0.7	0.6	0.8	1.5	3.2	4.6	1.2 ^b
4. Net inflow of capital/GDP	0.4	0.7	0.5	1.0	2.3	4.4	4.5	1.4
5. Net resource transfer/GDP ^c	-0.3	-0.1	-0.2	-0.3	0.3	1.4	1.5	-4.0

^a Average of national inflation rates, weighted by the population of each country.

^b 1983-1988, since much of the adjustment was still not complete in 1982 and the adjustment was still being financed from the reserves.

^c Positive figures represent a transfer to Latin America; those preceded by a minus sign represent transfers abroad.

Keeping the basic macroeconomic balances within prudent margins is of course not of itself a sufficient condition to ensure growth, but it is nevertheless a very necessary condition. In the 1980s it became abundantly clear that the production capacity, the amount of resources that the public sector can procure, and the availability of foreign exchange impose real limits on macroeconomic management. Thus, although all the countries of the region were hit by the crisis, growth generally suffered less in those economies where inflation was more moderate or less variable.

It is also necessary to combine pragmatically the stabilization and adjustment objectives with the objectives of change in the pattern of production, orienting macroeconomic policy towards the objective of growth. In this respect, a brief analysis is given below of the various instruments for achieving full use of installed capacity, increasing investment and developing exports.

1. Making full use of the margin for expansion of the product

Despite the serious current imbalances in the public finances and the foreign exchange constraints, there is still considerable room for expanding the product through a suitable combination of domestic economic reorganization and better use of the capacity of the economies to generate and/or save foreign exchange.

In order to take advantage of this possibility, it is necessary to take account of three central facts in designing economic policy. The first of these is the acute shortage of foreign exchange due to the turnaround caused by the external debt crisis in the transfer of resources, which has forced the economies of the region to adjust their external accounts by saving on imports, even at the cost of a drop in the level of domestic activity. Possible reduction of the external debt is an essential complement to the domestic effort to generate and save foreign exchange. In view of the magnitude of the negative resource transfer and the most reasonable projections on its evolution in the foreseeable future, however, it will not be feasible to resume development without a large-scale domestic effort to promote exports. Consequently, sound export development measures are one of the most vital elements in any recovery and growth strategy.

The second factor is that of the serious fiscal imbalances. The recent stagnation of many economies is due to sharp price rises or else to recessions associated with the stabilization plans applied in order to check outbreaks of inflation which were getting out of control. A high and persistent fiscal imbalance, financed through inflation, makes growth impossible, not only because of the adverse effects of the outbreaks of inflation on the level of activity, but also because of its particularly negative effect on investment demand. In such a situation, the level of the product stagnates and its composition is altered in that there is a drop in the investment coefficient. Thus, the attainment and maintenance of a sound fiscal situation is the second central component in the design of a macroeconomic strategy for recovery and growth.

The public deficit depresses investment in various ways. Thus, the expedient of financing the public debt through money issue pushes up the cost of credit, and this, together with the decline in the level of activity, inhibits potential investment plans. In the past, attempts have been made to ensure the availability of cheap credit to cover the public deficit by fixing interest rates, sometimes at negative real levels, and thus trying to prevent a rise in such rates from aggravating the deficit still further by increasing the public domestic debt service burden. By keeping down interest rates, however, such financial repression encourages capital flight and diverts financial saving to informal channels, severely prejudicing private investment and resource assignment. Moreover, if the deficit is covered directly by money issue, this tends to set off an outbreak of inflation. The enormous variability of relative prices associated with these phenomena encourages speculative operations which act to the detriment of production and investment.

The third central factor is connected with the margin of idle installed capacity and the high rate of underutilization of the labour force. If it were possible to overcome the constraints arising in the external and fiscal areas, there would then be considerable room for economic growth. The application of a set of policies which bring the economy up to full-capacity production could result in higher levels of per capita product, investment, saving and consumption, as well as higher wages. This

objective naturally calls for the careful management of certain key prices and expenditures, but this approach does offer promising prospects in the midst of the frustration currently affecting the region as a whole.

2. Exports and investment as two key factors

The concept of recovery can be equated with a phase in which the effective product is close to the potential product, while that of growth can be equated with the subsequent expansion of both these variables. The path of recovery must fulfil two objectives. The first of these is that the fiscal and foreign exchange constraints must be overcome sufficiently rapidly to make a recovery in production a viable matter. The second is that during the recovery process there should be a gradual rise in the investment coefficient so that when the economy recovers full use of its installed capacity the investment coefficient will stand at a level that permits sustained expansion of the product at rates similar to those which prevailed before the 1980s. It is estimated that, as an average, such a coefficient would be around 22%.

In order to achieve recovery and growth, it is essential that the fiscal and external gaps should evolve in a coherent manner. If it is borne in mind that the difference between the effective and the potential product of the region may be of the order of 15%, then it will be appreciated that the first requisite for ensuring that the investment coefficient rises to 22% by the end of the recovery phase is that per capita consumption should expand significantly slower than the per capita product.⁴ This is the only way of reconciling the increases in saving and investment which are required.

In order to ensure that consumption increases at such a moderate rate in spite of the already extremely low level of consumption of great masses of the Latin American and Caribbean population, priority attention will have to be given to the way in which the consumption of the high-income strata evolves.

Developments as regards public expenditure, monetary and credit policy decisions and wages must also be in keeping with this objective. The expansion of government consumption must be subject to severe limitations, in view of the vital need to maintain the fiscal balance and recover from the depressed levels of public investment, not only in the infrastructure and other expenditure complementary to private investment, but also in human capital (education, health). Economic recovery would give the public sector access to new resources, thanks to the foreseeable increase in tax revenues, a possible improvement in the financial situation of State enterprises connected with the domestic market, the presumable reduction in expenditure on unemployment benefits, and the seigniorage⁵ deriving from the probable expansion of the real monetary base. In many cases, fiscal reforms and improvements in tax administration will be required in order to increase tax revenue. These resources must be managed with extreme prudence, in order to avoid generating fresh imbalances.

Perhaps the most complex challenge is that of gathering together external resources in order to help finance recovery and growth. The magnitude of the resources required is all the greater because investment – the level of which must be raised – involves intensive use of foreign exchange. Although some further progress may be made in the area of import substitution, it seems clear that the main burden of the strategy will fall on the capacity of the economies to expand their exports without affecting the reduction which it is essential to achieve in the external debt service. Without a major and persistent effort in this direction (this topic is dealt in the following chapters), there will be little real possibility of recovery and growth.

In short, the resumption of growth calls for a reasonable balance in the public finances, the initiation of an expansionary cycle headed by exports and investment, and a controlled increase in consumption and imports. This

⁴ For example, if the present potential gross domestic product (assuming full utilization of the installed capacity) is 100, the effective gross domestic product would be 85, investment 12.8 (15% of 85) and consumption 72.2. Assuming that it took six years to close the gap and that the potential gross domestic product grew by 12% in the meantime (thus rising to nearly 112), then the effective gross domestic product would be 112 at the end of the six years, investment would be 24.6 (22% of 112) and consumption would be the remaining 87.4. Thus, in six years the per capita consumption would have grown about two-thirds as much as the per capita product.

⁵ The profit that a government or Central Bank obtains by minting money.

general criterion is valid for the region as a whole. At the same time, however, the various national situations cover a very wide and varied spectrum, ranging from economies which are relatively balanced and/or are making virtually full use of their installed capacity (Chile, Colombia, Uruguay), to others where there are enormous imbalances and acute under-utilization of production potential (Argentina, Brazil, Peru). The specific conditions prevailing in each economy will determine the proper mix of objectives and policies. Economic policy must give priority to the gradual reduction of the existing gap, that is to say, efforts should be concentrated initially on fiscal adjustments, the generation and saving of foreign exchange, and the expansion of

production capacity, depending on which of these three basic balances seems to be causing most problems. Naturally, the policies adopted in order to close the main gap must also take account of the other gaps and aid in their reduction.

The links between investment and growth and between growth and changes in the productive structure mean that it is necessary not only to invest, but to invest well, in the sense of improving the efficient assignment of resources in activities giving high social returns. The additional resources obtained both by domestic efforts and through international co-operation are required precisely in order to attain a productive structure permitting greater international competitiveness.

C. DEVELOPMENT FINANCING

The challenge of changing production patterns calls for a substantial increase in the investment rate, which, in turn, involves a concomitant increase in the sources of financing, that is to say, a substantial expansion of saving. Increasing the investment rate from 16% to 22% of the product, for example, demands resources of over US\$70 billion per year for the region as a whole. This gives some idea of the magnitude of the effort required. For the region as a whole, if the present net transfer of resources abroad were reduced to zero, this would cover rather less than half of the resources needed. The remainder would have to come from an additional domestic effort, which thus becomes an essential requirement for the application of the policies proposed in the following chapters. In the sections below, an analysis is made of the main potential sources of financing for this purpose: external financing, public sector saving, and private saving.

1. The external contribution to development financing

Traditionally, the balance-of-payments current account deficit – external saving – has been considered as the external contribution to the investment process. Now, however, it has become habitual to use the concept of the net transfer of resources, which can be equated to

the balance-of-payments trade surplus. The difference is conceptually important, for that part of the external financing which has to be used to pay interest (and in recent years interest payments have considerably exceeded net external financing) is thus no longer available for investment. In other words, investment is financed with domestic saving and with the net transfer of resources from the exterior. In fact, however, in the 1980s the external debt crisis led to a dramatic turnaround in the net transfer of resources compared with previous decades: an inflow of resources equal to 2% of the regional product became a transfer of resources abroad which has averaged 4% of the product since 1982, giving a total variation between the two amounts equivalent to 6% of the product.

In spite of the tremendous austerity effort made, which is reflected in the fact that the rate of domestic saving (i.e., that part of the product which is not consumed) has been kept at one-fifth of the product even though the latter has fallen sharply in per capita terms, it has nevertheless not been possible to compensate for the contraction in the contribution of resources from abroad, and the rate of investment has gone down dramatically. Looking into the future, there can be no change in production patterns or greater social equity unless this state of affairs is altered. It will be

necessary to agree on policies which involve a substantial reduction in the resource transfer abroad, on the basis either of a reduction in the principal of the debt, a reduction in the interest rate charged on the region's external liabilities, or else an increase in the flow of loans from abroad. These measures have been included, in principle, in the Brady Plan. However, the results achieved so far by that Plan are far below those needed to make the resumption of growth and investment in the region a viable prospect.⁶

The obstacles to growth and investment raised by the lack of sufficient external financing represent a serious difficulty. The drop in external saving not only directly erodes the sources of investment financing, but also hinders the capacity to generate domestic savings. This is because the lack of foreign exchange obliges the economies to operate below their full-capacity levels and introduces enormous levels of uncertainty and variability with regard to the product. The adjustment of the period 1982-1984 was deeply marked by these characteristics. Subsequently, as already noted, the resurgence of inflation has been the dominant feature of the region, but notwithstanding the substantial development of the region's exports, the burden of the external debt is so heavy that, if it persists, the economies probably will not be able to find sufficient foreign exchange to render viable a sustained process of recovery of production and raising of investment, even if they are able to overcome inflation.

The inhibiting effect of the shortage of foreign exchange on the formation of domestic saving raises challenges which make the objective of reducing the resource transfer even more urgent. Achieving the latter objective is an essential condition for raising production and investment, but of itself it is not sufficient for this: in addition, it is necessary that there should be intensive efforts to increase the region's export capacity, as well as an economic policy framework which will prevent possible increases in internal saving taking the place of sources of domestic saving.

Likewise, in many cases the shortage of foreign exchange prevents the full use of the available production resources. This means that the social value of a unit of foreign exchange is greater than its private value, since the generation or saving of additional foreign exchange also permits the employment of unused production factors at no cost for society.

The adaptation of production processes to generate goods that can be exported to external markets takes some time, however, so that policies for reallocating expenditure tend to operate more slowly than those aimed at the reduction of expenditure: the production of non-tradeable goods (construction, for example) may have fallen more rapidly than the growth rate of the production of tradeable goods, but the resources thus made available may not have been used to expand the production of tradeables. Indeed, most of the adjustment in the region was in fact achieved by reducing expenditure. In view of this, and in the light of the undesirable social effects of expenditure-reduction policies, it is both justified and efficient to use transitory but hard-hitting policies in the reallocation of expenditure. In very general terms, it is estimated that in order to improve the trade balance by US\$100 billion in three years, the region sacrificed a total of some US\$250 billion in lost product:⁷ that is to say, two and a half dollars of domestic production were sacrificed in order to save one dollar of foreign exchange. This means that any efficient combination of tariff surcharges or special export subsidies which saved or generated one dollar of foreign exchange at a lower cost than that amount of lost production would have been preferable to the adjustment policy which was actually followed. Since it is a transitory problem, the aim is to strengthen the immediate substitution effects. Once those effects begin to be felt in all their force, it will be unnecessary to apply incentives that could lead to over-allocation.

A macroeconomic policy which prevents external saving from taking the place of domestic saving is also indispensable in order to ensure that a reduction in the internal debt burden really makes possible a recovery in

⁶ See ECLAC: *Latin America and the Caribbean: Options for reducing the debt burden, op. cit.*

⁷ The total improvement in the trade surplus accumulated between 1981 and 1984 came to US\$100 billion. Over the same period, the cumulative loss of product came to 6% of the GDP. If it were assumed that, in other circumstances, the region would have been able to grow at an average of 5% per year, then the cumulative loss would come to 36% of the regional GDP, or some US\$250 billion.

investment. In the past, it has been common practice to replace government saving with external financing. If proper use is to be made of possible increases in external saving, such practices must be done away with. The financing of changes in production patterns calls for an enormous fiscal effort as regards increasing public saving.

2. Public saving

One of the most distinctive features of the regional macroeconomic picture in the 1980s has been the drop in public saving. The basic causes of this problem were the drops in tax revenue due to the recession and inflation, frequently accompanied by increases in public expenditure on subsidies and transfers, especially in connection with the payment of interest on the public debt (both domestic and external) and quasi-fiscal operations (operations of a fiscal nature carried out by the central banks, most often with the aim of rescuing debtors and financial institutions whose position was seriously compromised by domestic financial crises).

These three phenomena – increases in expenditure on subsidies and transfers, the higher cost of quasi-fiscal operations, and the drop in tax revenue – have been connected with the crisis caused by the external debt, which is directly responsible for the heavier fiscal debt service burden. It is calculated that out of the total global turnaround in the net transfer of resources from the exterior, some 80% (equivalent to rather more than 4% of the product) has been borne by the government authorities. The increase in domestic public debt service, for its part, is due both to the increase in the principal and the increased interest due on that amount. Both these amounts have grown in many countries because it has been impossible for the public sectors to adapt to the external financing situation through the reduction of expenditure or through increases in current revenue. Consequently, the public sectors have had to resort to domestic indebtedness, leading to a rise in interest rates.

The increase in the cost of quasi-fiscal operations is also due indirectly to the debt crisis. The interruption in the flow of external

credit to the region inflicted a heavy blow on debtors and financial intermediaries who had big liabilities in foreign currency. The problem was further aggravated by domestic recessions and currency devaluations, and the central banks of many countries had to intervene with subsidies and debt reprogramming arrangements in order to avoid a generalized collapse of the system of payments. Subsequently, the strong demand for funds by the public sector on the domestic market has undermined the quality of many of the financial system's assets by exerting upward pressure on interest rates. All this has meant heavy losses for the central banks, as well as a contraction in public saving.

Finally, the drop in tax revenue has been closely linked with the recession and inflation. The public deficits which have had to be accommodated have been so large that the domestic financial markets have rapidly been saturated with public securities. In these circumstances, the deficits have tended to be monetarized, opening the way to increasing inflation which has undermined fiscal revenue through the Olivera-Tanzi effect,⁸ which is observed when there are delays in collection, together with rising rates of inflation.

The way public enterprises have performed has varied: in some cases, where such enterprises have been located mostly in the exportable goods sector of the economy, they have benefited from devaluations, or else they have followed pricing policies which involved increases higher than the average price increases in the economy as a whole. In these cases, the public enterprises have increased their contribution to public saving. In other cases, however, public enterprises have been faced with a high level of accumulated indebtedness; they have suffered from a rather unclear distinction between entrepreneurial and non-entrepreneurial objectives; they have been subject to price control policies within the context of inflation control programmes, or they have formed part of price subsidy schemes, especially for exports. In these cases, the public enterprises have frequently shown big deficits and thus contributed to the decline in public saving.

⁸ See, for example, V. Tanzi, M.I. Blejer and M.O. Teijeiro: "Inflation and the measurement of fiscal deficits", *IMF Staff Papers*, vol. 34, No. 4, December 1987.

The drop in public sector saving has naturally had negative effects on total saving. The experience of the countries of the region clearly shows that the private sector does not fully interpret public deficits as signs of future taxes, and consequently does not generate additional savings to make up for the drop in public saving. The absence of full substitutability between the two forms of saving thus means that an increase in public saving would make it possible to raise total saving.

It should also be noted that the fiscal imbalance has seriously prejudiced private investment. This is due, among other factors, to the impact of the public deficit on the cost of credit, which shows how prejudicial an inflationary climate is when making investment decisions. Finally, in recent years there has been a tendency to make adjustments in the public budget by reducing public investment. In view of the structural characteristics of the region, such investment is highly complementary to private investment, so that any reduction in it will adversely affect the latter. A drop in private investment tends to depress private saving – particularly at the enterprise level – and to encourage capital flight.

It may be concluded from the foregoing that the financing of changes in production patterns requires, as an indispensable condition, the reorganization of fiscal policy in order to increase public saving. It could even be asserted that, if the primary deficit could be reduced still further, this could set up a kind of "virtuous circle". If the fiscal pressure on the credit market were reduced, interest rates might go down, thus reducing the burden of servicing of the public domestic debt; and this process – like that which occurs in the case of possible declines in the rate of inflation and their effect on tax collection – tends to be self-intensifying through a feedback effect.

There is relative consensus that the current freedom of movement of fiscal policy in the region is very limited as far as expenditure is concerned. In many cases, investment expenditure has been reduced below what is advisable, and current expenditure could hardly bear further reductions unless the State decides to stop carrying out certain tasks altogether. It

is necessary, however, to give priority to the allocation of public expenditure within a medium-term perspective, aimed at emphasizing two central elements: complementing the private effort as regards reinsertion into the international economy, and minimizing the social cost of the adjustment. The first of these objectives means avoiding fiscal adjustment through the reduction of public investment, but it also implies giving priority to the investment of the scanty available resources in those sectors which are highly complementary to private efforts to change the productive structure. Outstanding in this respect, as we shall see below, is expenditure on investments in infrastructure and human capital, especially in public health, education and the retraining of labour, as well as in research in the areas of technological development and basic sciences. Obviously, the order of priority of these two approaches, if it is to be coherent with the overall restrictions, means lowering the profile of the remaining public investment expenditure.

With regard to current expenditure, the objective of minimizing the social cost of the adjustment means that a leading place must be given to social programmes. An effort should also be made, however, to improve the allocation of expenditure in such programmes by making precise appraisals of their effects on poor groups and on employment, so as to raise the efficiency of government current expenditure.

At all events, it is evident that most of the fiscal adjustment, which is the most promising path in the medium term, must come from tax reforms. An examination of the most recent examples of such reforms in the region shows numerous special approaches and specific situations.⁹ It is, however, possible to identify some basic common features such as the emphasis on the use of indirect taxes as sources of revenue; the tendency towards the generalized use of the value added tax (VAT); the emphasis at the same time on achieving suitable collection, simplification, administrative transparency and efficiency in distribution; the gradual reduction in marginal income tax rates, compensated by a broadening

9 UNDP/ECLAC regional project RLA/87/003, "Identification of Policy Options for Economic Recovery and Development of Latin America and the Caribbean", module I: Fiscal Policy, has prepared case studies on 10 Latin American countries.

of the tax base, and finally, the elimination of many taxes which bring in only small amounts of revenue.

Rather than using a complex tax system with many nominal rates, it is preferable to adopt a system which has relatively few (but broad) tax bases and which gives preference to uniform rates (leaving the use of differential rates for those cases where it is really justified, as for example in the case of personal income tax). The adoption of broad bases represents an important step towards the achievement of greater equity, while at the same time it simplifies tax administration and makes it possible to increase tax collection through the reduction or elimination of "tax costs" (deductions, exemptions and various types of fiscal incentives, which are generally not very efficient).

In all successful reform programmes, a leading role is played by an efficient and modern system of tax administration which improves controls and establishes penalties for failure to comply with the new fiscal obligations. Without this essential requirement, there are no grounds for expecting major results with regard to revenue collection. Consequently, it is suggested that priority should be given to the provision of all the resources needed for the establishment of a rapid, sound and efficient tax administration structure based on the political will to enforce the payment of legally decreed taxes without exception. In this respect, some recent experiences indicate that notifications of inspection of taxpayers' returns should be selected by computer, the automatic nature of which guarantees equal treatment for all taxpayers.

Among supplementary measures which could improve tax collection are: high-level political support for decisions to investigate and punish offences discovered by the tax authorities; the strengthening of control and auditing activities and provision of the necessary resources for them to be carried out successfully; stricter legislation on the investigation and punishment of tax offences; simplification of the forms used and use of the banking system for the payment of taxes and possible tax refunds; improvement of attention to taxpayers through technical

assistance schemes which reduce the cost of complying with tax obligations, and convincing declarations that no temporary tax amnesties will be declared.

3. Private saving

Private saving is a subject which has only recently begun to be studied at the regional level.¹⁰ In dealing with it, a distinction should be drawn between personal savings and the saving of enterprises. The studies carried out on the behaviour of personal saving do not reveal any proof that such saving responds positively to the real interest rate. This seems to indicate that there is a trade-off between the substitution effect (whereby a rise in interest rates makes present consumption more expensive with respect to future consumption) and the wealth effect (whereby it is possible to buy more goods in the future with the same savings). Empirical tests tend to confirm that personal consumption is subject rather to the influence of some concept of income considered as more permanent or longer-term, in the sense that drops in family income which are perceived as transitory tend to depress saving sharply, and *vice versa*. Finally, in order to avoid a situation where redistribution programmes may depress the saving coefficient, it seems important to seek to design policies and instruments which favour the saving of earned income, such as wage funds, capitalization-based provident systems, insurance and the like.

Special mention should be made of the interrelationship between macroeconomic policy and personal saving. The enormous capital flights registered in the region during the decade are an indication of how sensitive saving is to the degree of security offered by domestic instruments that seek to attract such saving. The lack of credibility of exchange policy, the absence of index-linked instruments in inflationary situations, the continued existence of an unfavourable environment for productive investment, and the instability of the economic policies themselves are all elements affecting the possibility of making effective use of saving in national investment projects.

Attention should also be drawn to the systems of retirement pensions, the assets of which are

¹⁰ UNDP/ECLAC project RLA/87/003, "Identification of Policy Options for Economic Recovery and Development of Latin America and the Caribbean", module II: Development financing, has prepared case studies on domestic saving in various Latin American countries.

very seriously eroded in most of the countries of the region, so that they represent a drain on the countries' saving. In countries with a growing population and relatively low average age levels, consideration should be given to the establishment of pension systems based on the individual capitalization of contributions, which could considerably assist global saving. Other contractual saving systems, such as those connected with the acquisition of dwellings, the purchase of equity in enterprises, future educational expenses for children, or life insurance, which usually have some kind of public support designed to encourage them, could also help to increase the saving of natural persons.

As voluntary personal saving seems to be linked to increases in income rather than to any other economic variables, the growth process itself will generate savings. Consequently, such measures as solving the existing restrictions on growth of the external sector, increasing public saving, and ensuring efficient allocation of the available savings resources could also help to increase personal saving, thus strengthening still further the economic growth process.

Similar considerations apply to the savings of enterprises, which are quantitatively a more important source of finance than personal savings. It should be emphasized that opportunities for profitable investment seem to

be the most important stimulus for the savings of enterprises. Many investment opportunities and decisions, in turn, are influenced by medium- and long-term considerations connected with the dynamism of the economy, the stability of economic and social policies, the maintenance of the macroeconomic balances within narrow margins, and the rules regarding the right to own property. As in the case of persons, the savings of enterprises do not seem to be influenced by the cost of credit but rather by the expected net rate of return on the investment. Finally, tax incentives for the reinvestment of profits seem to play an important role in encouraging the savings of enterprises, but the use of such incentives is only efficient when the tax system is suitably supervised.

A promising approach in seeking to promote private saving, especially that of physical persons, is that of trying to discourage exaggerated increases in consumption. The tax systems can play an important role in this respect, and not only through the well-known system of applying specific taxes on consumption. Special measures could also be taken to discourage consumer credit: in some countries, for example, interest payments can be deducted as expenditure, even though they are in respect of loans for financing consumption expenditure.

D. THE SUPPORT OF THE SOCIAL AGENTS FOR CHANGING PRODUCTION PATTERNS WITH SOCIAL EQUITY

The objective of changing production patterns with social equity is not only conditioned by factors of an economic nature: it also involves some socio-political requirements, outstanding among which is the support of the various social agents, especially in terms of their motivation to willingly accept the sacrifices and responsibilities that such changes in production patterns involve.

The requirement that there should be social support for the process of change is particularly important when the latter has to be carried out within democratic systems such as those which

prevail in Latin America today. If it is accepted that social backing is an important requisite, then the key question is: which social agents can become the social support for the process of changes in production patterns with equity? It is very difficult, if not impossible, to give an answer which is valid for the situation of every one of the countries. Not only are there very varied socio-political conditions in the region, but also the idea of changing production patterns is not a single recipe for generalized application, but rather a set of guidelines to be adapted to the national context in which they are applied.

1. The socio-political framework

In exploring this topic, it should be emphasized that the social changes in recent decades have had a strong impact both on the identity and composition of the social groups and on individual and collective experiences, all of which has decisively influenced the support that the latter are willing or able to give to a project of change. Societies which were predominantly rural have rapidly turned into primarily urban conglomerates, and in turn there have been major changes in the urban and rural environments. New possibilities of employment in industry and services have been opened up, but only occasionally have these opportunities expanded at the same rate as the constantly growing labour force, and the gap between them has been filled by an increasingly heterogeneous urban informal sector.

Most young people have completed their basic education, and enrollment in higher education has risen to sometimes considerable proportions. The mass media and the aspiration to "modern" forms of consumption now cover most of the population. In the case of people who previously had little or no direct contact with the State, their interaction with the authorities through the latter's functions of service, subsidies, regulation and repression has come to assume critical importance. Political participation has gone through repeated cycles of growth and contraction. Changes have taken place so rapidly that the experience of one generation has lost all validity as a guide for the following generation.

Many studies have shown that these changes have been markedly conflictive and inequitable, constantly thwarting the expectations and loyalties of the various groups.¹¹ Up to the end of the 1970s, however, the changes took place within a context of economic expansion which enabled some groups to attain great improvements in income and status, while others at least still had high hopes of such improvements. Likewise, the State had the means to expand educational and health services and provide various kinds of subsidies for the consumption of the urban – and to a

lesser extent the rural – population. Even though the disparity between the higher and lower income strata grew larger, generally speaking it did not seem that in relative terms the phenomenon of poverty was reaching extreme levels.

Since the 1980s, the social structures and the position of individuals in them have continued to evolve in just as rapid and contradictory a manner as before. They have done so, however, in a context of economic stagnation, falling living standards, lower State capacity to meet needs and demands, greater insecurity as regards the possibility of earning a living, concentration of attention on individual or group survival strategies, and perplexity or pessimism as regards the feasibility of any national policy for overcoming a crisis which has lasted for a decade or more, depending on the country in question.

It seems paradoxical that precisely when the economic conditions for the exercise of pluralistic democracy are at their lowest ebb, such democracy has emerged with renewed force, surviving and even consolidating itself in the majority of the countries of the region. There can be no doubt, however, that democratic participation and democratic policies designed to meet popular demands are more feasible when the economy is growing, since the distributive struggle is then less intense and the State is endowed with greater resources for redistribution. The corollary of this is that it is naturally more difficult to gain social support for processes of change in periods of prolonged economic recession.

Similarly, not all the social agents support the proposed changes: there are those who have different proposals, and moreover the changes are bound to affect certain interests, which will naturally be opposed to them. This is not surprising, of course, since this situation is typical of any political process, especially in democratic systems; the real problem consists of finding ways to reach agreement through negotiation, for which purpose it is of decisive importance to have an institutional system which facilitates this task.

¹¹ ECLAC, *Transformación ocupacional y crisis social en América Latina* (LC/G.1558-P), Santiago, Chile, 1989, United Nations publication, Sales No. S.90.II.G.3. See in particular the documents published in *Cambios en la estructura social* (*Pensamiento Iberoamericano*, No. 6, July-December 1984) and Julio Labastida and Martín del Campo (eds.), *Hegemonía y alternativas políticas en América Latina*, Mexico City, Siglo XXI Editores, 1985, as well as Alain Touraine, *Actores sociales y sistemas políticos en América Latina*, Santiago, Chile, PREALC, 1987.

In this respect, the existence of stable democratic systems calls for the presence of broad-based political parties which express the coherent interests of classes or groups within society but are willing to reach realistic agreements. It also calls for a wide variety of sectoral or local organizations which interact with the State, presenting demands to it and defending their members from excesses, but at the same time relieving the State of responsibilities which it cannot deal with efficiently and flexibly enough.

The contradictions and elements of insecurity which are to be observed throughout the social structure in most of the countries at the present time mean that the emergence and consolidation of such conditions for democracy are problematical. At the same time, however, pluralistic democracy has been given fresh encouragement by the failure of various "bureaucratic/authoritarian" régimes of different ideological types.¹²

This, broadly speaking, is the socio-political framework in which the process of changing production patterns with social equity must fit. In this connection, purely by way of example, some considerations will be set forth on various social agents in order to examine the possibility that these may support the process of change in question.

2. The social agents

To begin with, the changes among the *economic élites* have been varied. The groups best fitted to cope with the crisis have been those able to protect themselves from inflation by keeping their resources abroad in hard currency and investing them flexibly at high interest rates. These groups have been able to increase their consumption, largely of imported goods, in the midst of the crisis, and their lifestyle is such that it sometimes constitutes a veritable provocation to the rest of the population and an important factor in explaining the insufficient national capacity to accumulate capital and invest.

The nature and location of the assets of some of these élites frequently prevent the State from

taxing them, while the incentives they would require in order to repatriate their assets and invest them in productive activities could well be incompatible with the varied demands made on a democratic State. On the other hand, those groups linked with export activities have shown considerable dynamism in expanding and diversifying them.

The changes in the *middle strata* have been much more heterogeneous. Some groups have been able to cope with the situation through individualistic strategies similar to those of the élites, or through emigration out of the region. Among the wage-earning middle strata, however, there is a general tendency towards greater insecurity, lower income and an increasing discrepancy between their actual situation and the expectations of modern consumption and upward intergenerational mobility which flourished in the years of economic expansion. A key question in this respect is whether and to what extent the middle strata will be able to limit their predilection to try and gain particular advantages from democratic political systems. This predilection must have become even stronger because of the present situation and the fear that there will be some kind of downward levelling of incomes and State services (since it would be easier for the State to restrain the demands of the middle level groups than those of the élites).

For the purpose of this analysis, it is worth giving special attention to that sector of the middle strata which includes the technicians, professionals and other officials working in the public sector. In the past, political ups and downs and de-bureaucratization campaigns periodically changed their composition and brought in an element of insecurity, but did not prevent their general expansion. In most of the countries, the number of officials making up this component has been maintained during the 1980s in spite of the declining resources of the State, but this has only been possible at the cost of some reduction in their incomes and deterioration in their conditions of employment. This could tend to promote some lack of attention to their official duties and a search for external sources of income which

¹² The crisis of the 1980s and the authoritarian excesses which preceded it have also deeply marked the intellectual discourse on politics in Latin America. Attention is no longer centred on explanations regarding the inevitability of authoritarianism, but on ways of making democracy more viable. The representatives of different schools of thought are more disposed to listen to each other and seek common ground. It would appear that dogmatism and exclusivist utopias are now out of fashion.

could eventually result in a kind of "informalization". It could also strengthen their propensity to form self-defence mechanisms for their group if political régimes and public opinion begin to see the public administration as a burden, that is to say, as an oversized, costly and inflexible instrument for providing services or carrying out State policies.

Although the bureaucracies may protect the levels of employment of their workers in most countries, they can no longer absorb the new graduates of higher education, and this raises another query as to the future of democracy and support for changing production patterns. During the 1980s, student movements acted in quite a moderate manner as regards trying to take advantage of the opening up of democracy after the repression to which many of them had been subjected during the 1970s. It is not known what their longer-term response will be, however, if no other possibilities emerge in the economy to satisfy their legitimate aspirations for upward mobility.

Urban workers have suffered an absolute decline in their income and consumption capacity, as well as greater insecurity as regards their place in society and their future prospects. In general, they have suffered a radical reduction in real wages – in some countries by up to 50% – and the number of workers in modern industries has been either static or declining, in contrast with a growing urban labour force. The dividing line between these workers and the informal sector, which was always somewhat unclear, has become even vaguer. Working class families have had to resort to many different ways of earning a living, including various kinds of own-account work, and the women and children have had to help to keep the home going by taking advantage of any possibility that presented itself.

Nevertheless, workers' organizations, labour unions and the related political parties still have considerable capacity to mobilize large groups – including part of the middle strata and the urban and rural poor – in massive protests against austerity policies and the negation of democratic rights. Insecurity and the shattering of past illusions do not necessarily mean a loss of belief in the possibility of achieving a juster social order, and if the leadership proves capable of meeting this challenge they could

show greater flexibility and innovative capacity in pursuing their objectives.

The rest of the urban population (and in some cases now the majority of it), that is to say, the *poor*, the *subproletariat*, the *informal sector* or the *marginal sector*, according to the various different denominations used to classify them, was heterogeneous before the crisis of the 1980s and is even more so now. These groups have gradually become poorer and increased in number and have also had to suffer greater overcrowding in their living areas, shrinking opportunities for wage-earning employment, a rate of inflation which exceeds the rate of increase of their income, and cuts in State services and subsidies. At the same time, their form of integration in the economy and in political systems has become more complex, and at least in some circumstances they have shown a greater capacity to adapt to the crisis than other components of the population. The declines in the output of the industries producing "modern" consumer goods, in import capacity, and in the purchasing power of consumers have given more leeway to small unregulated enterprises producing cheap goods for the domestic market or providing certain services – including even financial services – outside the reach of the regulations. These same tendencies have probably stimulated large enterprises, including some transnationals, to make wider use of the informal sector for piecework production and the marketing of goods through itinerant salesmen.

The reappearance of political democracy and the competition for obtaining support in elections, as well as – in some cases – the participation side by side with other social classes in mass mobilization against authoritarian régimes have enabled part of these groups to make their demands heard and identify themselves with national problems after many years of forced exclusion.

Among the urban poor, solidarity and individualism will undoubtedly continue to exist side by side in the foreseeable future. As in other social strata, cultural propensities towards authoritarianism and clientage will struggle with a tendency towards equity and self-determination. Anti-State community prescriptions for achieving direct democracy and reciprocity may probably be considered as secondary tendencies, although they may be of

political importance in the evolution of the urban masses, while paternalistic bureaucratic solutions are also to be rejected because they are not effective nor compatible with democratic values.¹³ In the 1980s, the urban masses have shown greater tolerance than could have been expected from them in the face of the austerity policies which democratic governments have been obliged to apply. There have been relatively few large manifestations of violent protest, despite the deterioration in living conditions. There can be no question, however, of putting off indefinitely the establishment of concrete bases for securing the support and participation of these masses in a pluralistic democracy.

Finally, *peasants and rural workers* have gone through an equally contradictory type of evolution in the 1980s. Some groups of small farmers have improved their lot through the higher terms of trade of food products for the domestic market and greater State support for peasant agriculture. Landless rural workers, however, have generally suffered a deterioration in their position, due to the rise in food prices and greater competition among them for jobs. Migration to the cities as a way of escape from rural poverty has become less attractive, although not sufficiently so to stop the process.¹⁴ It is also likely that there has been a decline in remittances from migrants now living in the cities, which previously subsidized many rural economies.

Rural social organizations have in many cases obtained a new lease of life and have learnt to take advantage of the opening up of democracy, to enter into political alliances and to negotiate with the State. The old problems of land monopolization and agrarian reform, which are still not solved in many countries, have been reformulated in new contexts as the landless peasants have moved into the interior where they struggle against big enterprises and the autochthonous inhabitants.

In general, insecurity and exposure to violence have been rife during the 1980s among the rural populations of much of Latin America. Rural isolation and the unbridled

domination exerted by landowners and local bosses have been overcome, but efforts to achieve organized and independent political participation are still frequently frustrated by intimidation or degenerate into conflicts which break down economic and community links and almost empty some areas of their inhabitants.

All over Latin America and the Caribbean, the rural population has become a minority compared with the urban population. The prospect of incorporating this population into a pluralistic democratic order therefore now seems less difficult than in the past. The threat or promise of social change through peasant revolution has practically disappeared except in a very few countries. The rural population is now more fully integrated into national societies and economies, although this integration may have taken place on very disadvantageous terms and is not yet complete. The main immediate requisite for full rural participation in a pluralistic democracy seems to be the solid and effective presence of the State, offering solutions to solve conflicts.

3. The demands of social groups and their support for the process of change

Finally, in order to determine the socio-political support which the process of change could receive, it is of decisive importance to examine the composition and orientations of the social agents in each specific situation; only in this way will it be possible to establish who, and in what circumstances, could support the process of change or at least not become determined opponents of it. The situation varies from one social agent to another, but every effort should be made to identify the favourable aspects of each of them. For example, the middle and popular-level urban and rural strata should become the natural support for the process of change, since they will probably be its main beneficiaries. Frequently, however, their support is either not obtained or else it is subsequently lost because it is not possible to satisfy the long-postponed demands of these groups in the short term. In these circumstances, in order for them to support the process of change it is necessary to

¹³ Community and free trade variants have acquired some popularity in recent times. See, for example, Manfred Max-Neef and others, "Human-scale development: an option for the future", *Development Dialogue*, No. 1, 1989, and Hernando de Soto, *El otro sendero. La revolución informal*, Buenos Aires, Editorial Sudamericana, 1987.

¹⁴ It would seem that in the 1980s there was a qualitative change in the sense that rural/urban migrations tended to involve movements to medium-sized cities, rather than the traditional migration to the capital.

advance as far as possible on two fronts: to ensure that the sacrifices and benefits of the process of change are equitably shared in the short and medium term, and to ensure that the process of change is carried out with the full participation of these groups. Putting off the unsatisfied demands of the middle and popular-level strata but at the same time giving them in return greater participation in a process of change which puts the emphasis on equity could be a key factor in ensuring political support for this process.

The support of the social agents for the process of change should not be understood as the uncritical acceptance of a proposal dreamed up by technicians and politicians, but rather as the incorporation of these agents into a process of decisions and achievements. It is the task of the governments to present society with an initial proposal for change, but the democratic process means that it must be the interaction between public and social agents which defines the actual content of this proposal.

IV. CHANGING PRODUCTION PATTERNS WITH SOCIAL EQUITY: BASES AND DILEMMAS

A. BASES FOR CHANGES IN PRODUCTION WITH SOCIAL EQUITY

1. The imperative of changing production patterns with equity

In Latin America and the Caribbean, as in the rest of the world, one of the governments' long-term development goals, regardless of their ideologies, is the achievement of changes in production patterns coupled with social equity.

Nevertheless, during recent decades no country in the region has managed to attain this objective, even when relatively conservative comparative yardsticks of GDP growth and income distribution¹ are used to assess the situation. Indeed, although a number of countries (which taken together represent approximately two-thirds of the region's gross domestic product and a majority of its population) exhibited favourable trends in terms of economic growth, their levels of equity were unsatisfactory. The results for another group of countries, which account for about one-fifth of the regional product, were unsatisfactory as regards both growth and equity. Finally, a third group of countries achieved an acceptable degree of equity, but their economies either grew very slowly or were stagnant.

As was noted in chapter II, in the 1980s this situation was greatly aggravated by a tendency towards stagnation and social disarticulation. As a result, the first group of countries saw a slowdown in the growth of their economies, while those in the third group experienced a sharp decrease in social equity.

The absence of even a single case in the region in which economic growth has been combined with social equity raises the question as to whether this state of affairs might not be consubstantial with recent industrialization and whether the exacerbation of the situation during the crisis of the 1980s might not be attributable to the international context. However, other newly industrialized countries have obtained different results. An examination based on the same comparative indicators of GDP growth and income distribution shows that numerous European and Asian countries having quite different economic and institutional makeups have been more successful in reconciling satisfactory levels of growth and certain goals in respect of social equity,² and many of them were also able to surmount the adverse international conditions existing in the early 1980s. For purposes of comparative analysis only, these countries are used as a reference group whose results may be

¹ With respect to growth, the standard used was the average growth rate recorded for the advanced countries over the past 20 years (a 2.4% annual rate of increase in the per capita gross domestic product). Equity was defined on the basis of the ratio between the incomes of the bottom 40% and top 10% of the population in terms of income, and a value of 0.4 was used as the dividing line. This value is one-half of that recorded in the industrialized countries in the late 1970s and early 1980s (World Bank, 1986).

² On the basis of World Bank figures and using the same criteria as defined in note 1, examples of countries which appear to be situated in the quadrant of greater economic growth and social equity (which in the case of Latin America is empty) are: Spain, Portugal, Yugoslavia, Hungary, Korea, China and Thailand.

contrasted with those of the Latin American and Caribbean countries. This comparison shows that there are many different types of factors which may help to explain these contrasts. Among these elements, some of the region's structural features which may be of major importance in designing strategies for bringing about changes in production patterns oriented towards the objectives of growth and social equity merit special attention:

a) *Internal saving and the consumption pattern.* The lower degree of equity in Latin

America and the Caribbean is coupled with a lower level of internal saving than in the reference countries and with a pattern of consumption and production entailing a greater demand for imports. Furthermore, the region's external indebtedness and foreign investment have been proportionally higher (see table IV.1).

b) *The pattern of external insertion.* The international competitiveness of Latin American production is significantly lower than that of the reference countries. Moreover, the

Table IV.1
LATIN AMERICA AND REFERENCE GROUP: STRATEGIC INDICATORS
(Percentages)

	Year	Latin America ^a		Reference group ^b	
		Average	Standard deviation	Average	Standard deviation
1. Per capita GDP growth, average annual rate	1965-1986	1.3	16	42	12
2. Equity: 40% lowest income/10% highest income	1970 onwards	0.3	0.2	0.7	0.2
3. Financial restraint: Internal saving as a percentage of GDP	1984-1986 (average)	15.7	6.7	27.9	5.7
4. Competitiveness: Exports of manufactures/Imports of manufactures ^c	1986	0.3	0.4	1.0	0.4
5. External debt/GDP	1986	79.0	41.3	38.0	24.0
6. Direct foreign investment/GDP ^d	1986	10.9	2.8	3.0	1.2
7. Manufacturing product share/GDP	1986	19.4	5.6	33.1	7.1
8. Agricultural product share/GDP	1986	16.7	8.4	15.0	7.4
9. Share of metal products and machinery and chemical industry/manufacturing value added ^e	1985	16.9	9.0	31.4	8.0
10. Gross value of production per worker (1980=100)	1985	98.6	45.9	127.0	20.3
11. Manufactures export coefficient/GVP ^e	1985	10.0	8.5	18.2	9.5
12. Share of goods and services exports/GDP	1986	20.8	7.4	28.1	10.1
13. Education Secondary ^f	1985	45.6	16.4	65.0	24.1
Higher ^f	1985	17.8	9.4	18.4	9.1
14. Total productivity of factors ^g	1950-1980	1.48	0.36	2.67	0.41

Source: ECLAC, on the basis of official figures.

^a Latin America (19 countries) includes: ALADI, CACM, Dominican Republic, Haiti and Panama.

^b The reference group used here includes: Hungary, Portugal, the People's Republic of China, the Republic of Korea, Spain, Thailand and Yugoslavia.

^c United Nations, *International Trade Statistics Yearbook, 1986* (ST/ESA/STAT/SER.G/35), 1988, United Nations publication, Sales No.: E/XVII 2, vol. 1; exports and imports of manufactures are defined on the basis of SITC sections 5 through 8 except for division 68 (non-ferrous metals).

^d OECD, *Les principales économies en développement et l'OCDE* (SE/M DE/2), Paris, May 1988.

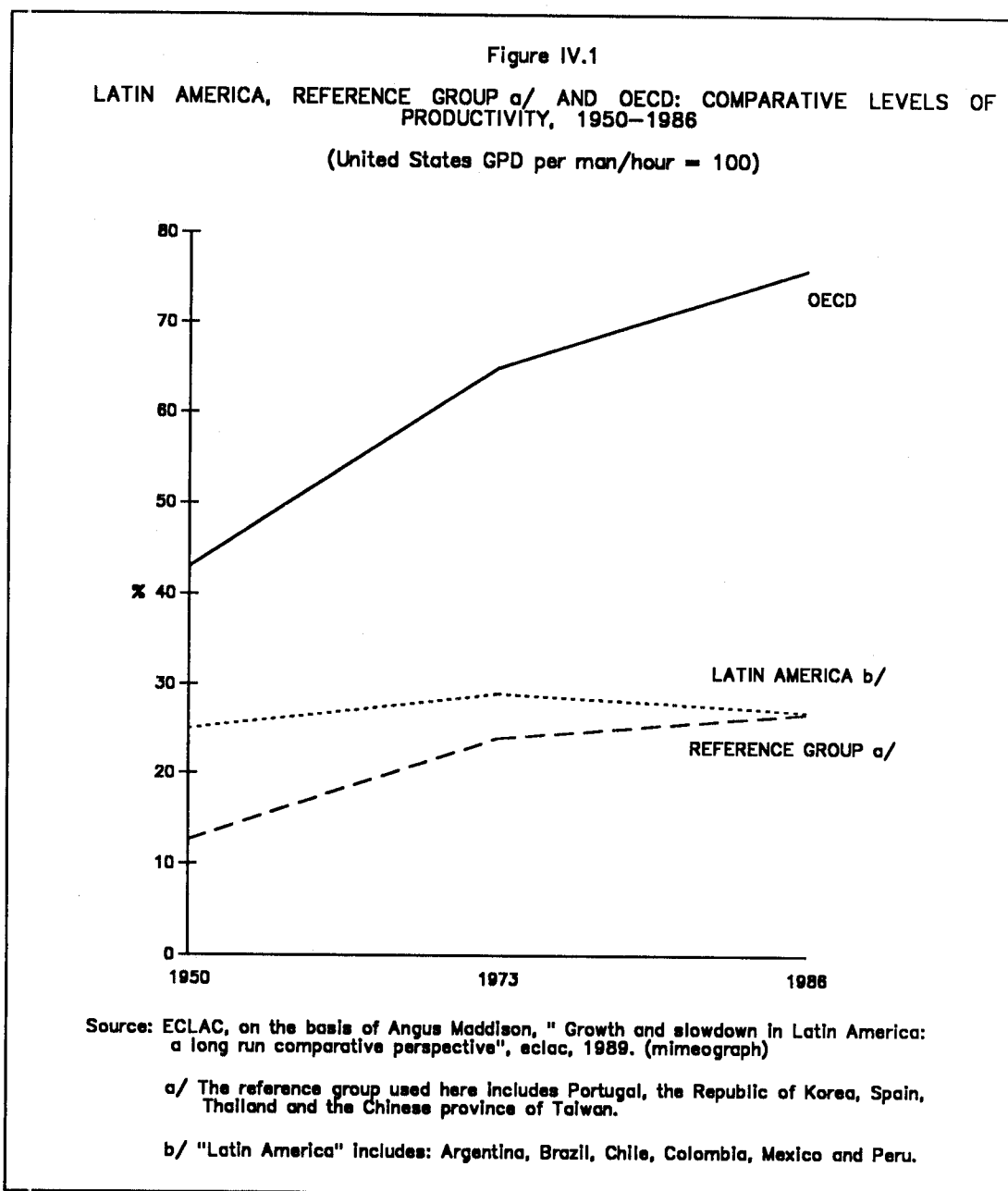
^e UNIDO data bank.

^f Number of persons enrolled as a percentage of the age group.

^g Angus Maddison, "Growth and slowdown in Latin America: A long-run comparative perspective", ECLAC, 1989 (mimeograph).

trade matrix is notably skewed in that the region's import structure is virtually identical to that of the industrialized countries whereas its export structure is such that only a very small, although growing, proportion of its exports come from dynamic, high-technology activities (see figures IV.1, IV.2, IV.3 and IV.4).

c) *The slowness of the absorption of technical change.* This is reflected in the small proportion of high-technology activities in the region's productive and export structures; in the slower pace of change in those structures; in the less intensive technological research and development efforts of the countries,



particularly within their entrepreneurial sectors; in the relatively lower educational level; and in the slower rate of increase in productivity (see tables IV.1 and IV.2).

d) *The resistance of interest groups.* Most of the countries in the reference group have experienced various combinations of circumstances which have had a great social impact on them. In some cases, these events have included a war which was then followed by a period of reconstruction. This context has had a decisive influence on the reactions of the various interest groups to the reorientation of development in these countries. In Latin America and the Caribbean, however, attempts to modify the pattern of development and the way in which economic activity is organized have aroused resistance and even open opposition on the part of interest groups which have felt threatened by such proposals for change.

e) *Insufficient growth to absorb the increase in the economically active population.* As a result of the rapid (although recently declining) population growth rates of most of the countries in the region, the region has suffered from considerable marginality, underemployment and, indeed, open unemployment, even during periods of relatively faster economic growth (such as between 1950 and 1980). This, in part, accounts for the extreme inequality of the countries' distributive structures.

If it is granted that – notwithstanding the existence of other factors more closely associated with each individual country (notably the highly unequal distribution of wealth) – the factors discussed above are a large part of the reason for the inability of the region's economies to attain the objectives of growth and social equity, then we would do well to examine some of the cause-and-effect relationships by which the absorption of

Table IV.2
COMPARISONS OF SELECTED INDICATORS IN THE FIELD OF SCIENCE AND TECHNOLOGY
(Mid-1980s)

	Latin America	Mediterranean countries ^a	Asian countries ^b	Group of 7 ^c
University graduates/100 000 inhabitants	1560	1910	4780	5920
Graduates in engineering and technology/total graduates (%)	172	176	202	155
Engineers and scientists in R&D/100 000 persons in EAP	690	1190	1450 ^d	5810
Expenditure on R&D/GDP (%)	06	09	13	27
Per capita expenditure on R&D (US dollars)	120	240	180 ^e	3460
Expenditure on R&D, by source ^f (%)	1000	1000 ^g	1000	1000
i) Public sector	78.8	46.4	35.6	43.1
ii) Entrepreneurial sector	10.5	49.5	61.4	52.5
iii) External funds	3.4	3.9	2.9	0.4
Expenditure on R&D, by type (%)	100.0 ^h	100.0 ⁱ	100.0 ^d	100.0 ^j
i) Basic research	20.9	19.0	21.1	14.1
ii) Applied research	52.4	39.7	30.4	26.5
iii) Experimental development	26.7	41.2	48.5	59.5

Source: ECLAC, on the basis of official figures.

^a Includes Greece, Portugal, Spain, Turkey and Yugoslavia.

^b Includes Hong Kong, Korea, the Philippines, Singapore and Thailand.

^c The Group of 7 is formed by Canada, the Federal Republic of Germany, France, Italy, Japan, the United Kingdom and the United States.

^d Does not include Hong Kong or Thailand.

^e Does not include Hong Kong.

^f Does not total 100 in all cases because the "other sources of financing" category is not included here.

^g Does not include Turkey.

^h Includes only Argentina, Cuba, Mexico and Venezuela.

ⁱ Includes only Portugal and Spain.

^j Does not include Canada.

technical change is linked with competitiveness and the latter is linked with growth and social equity. This will make it possible to deduce the outlines of the steps which need to be taken in terms of strategic reorientation, institutional change and policy-making in order to achieve

the above-mentioned objectives. It should be noted here that the relationships of causality discussed below are presented solely by way of example and constitute an abstract construct of phenomena which are, in reality, much more complex and subtle.

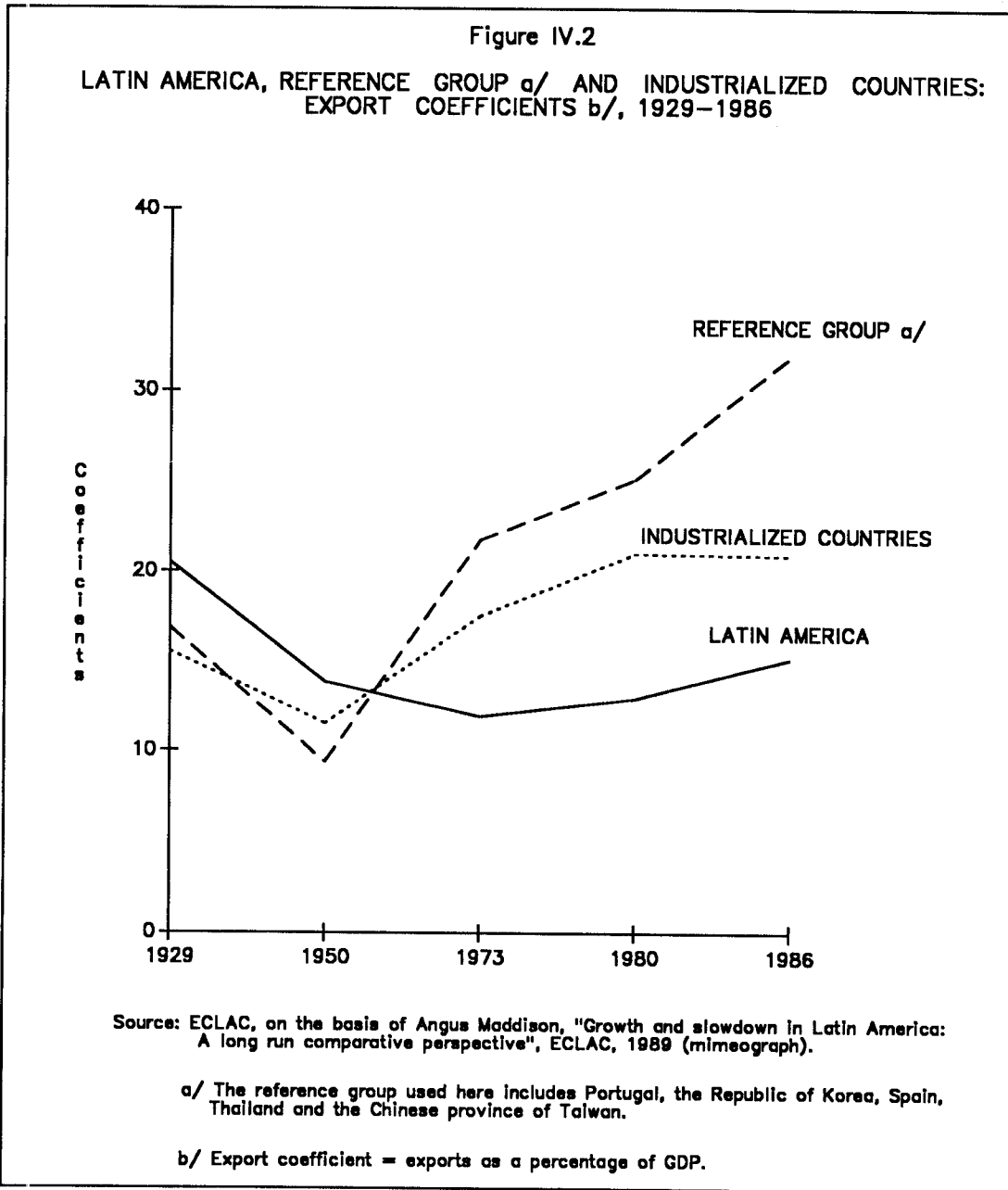
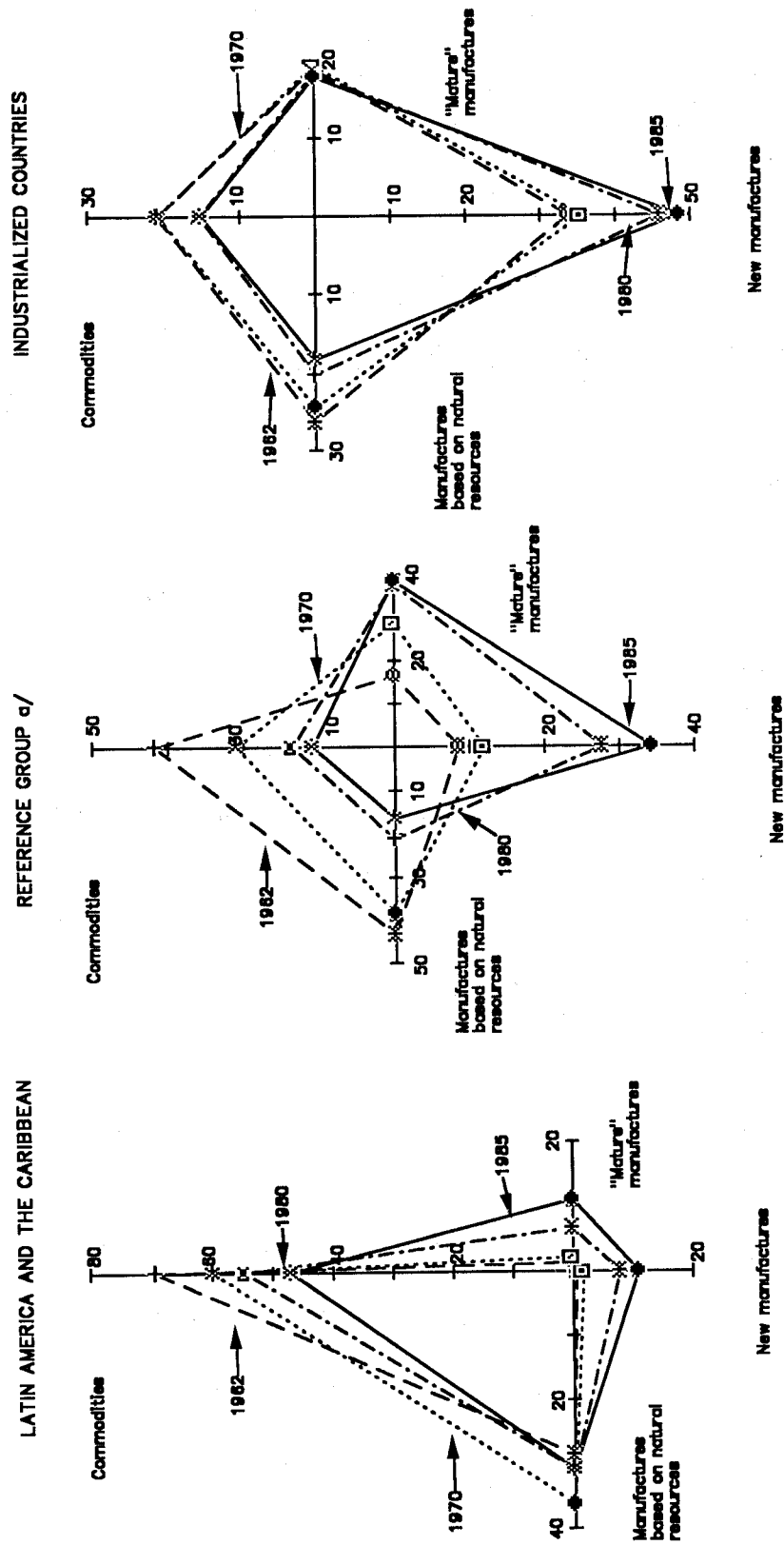


Figure IV.3
 LATIN AMERICA AND THE CARIBBEAN, REFERENCE GROUP AND INDUSTRIALIZED
 COUNTRIES: EXPORT STRUCTURES, 1962-1985
 (Percentages)

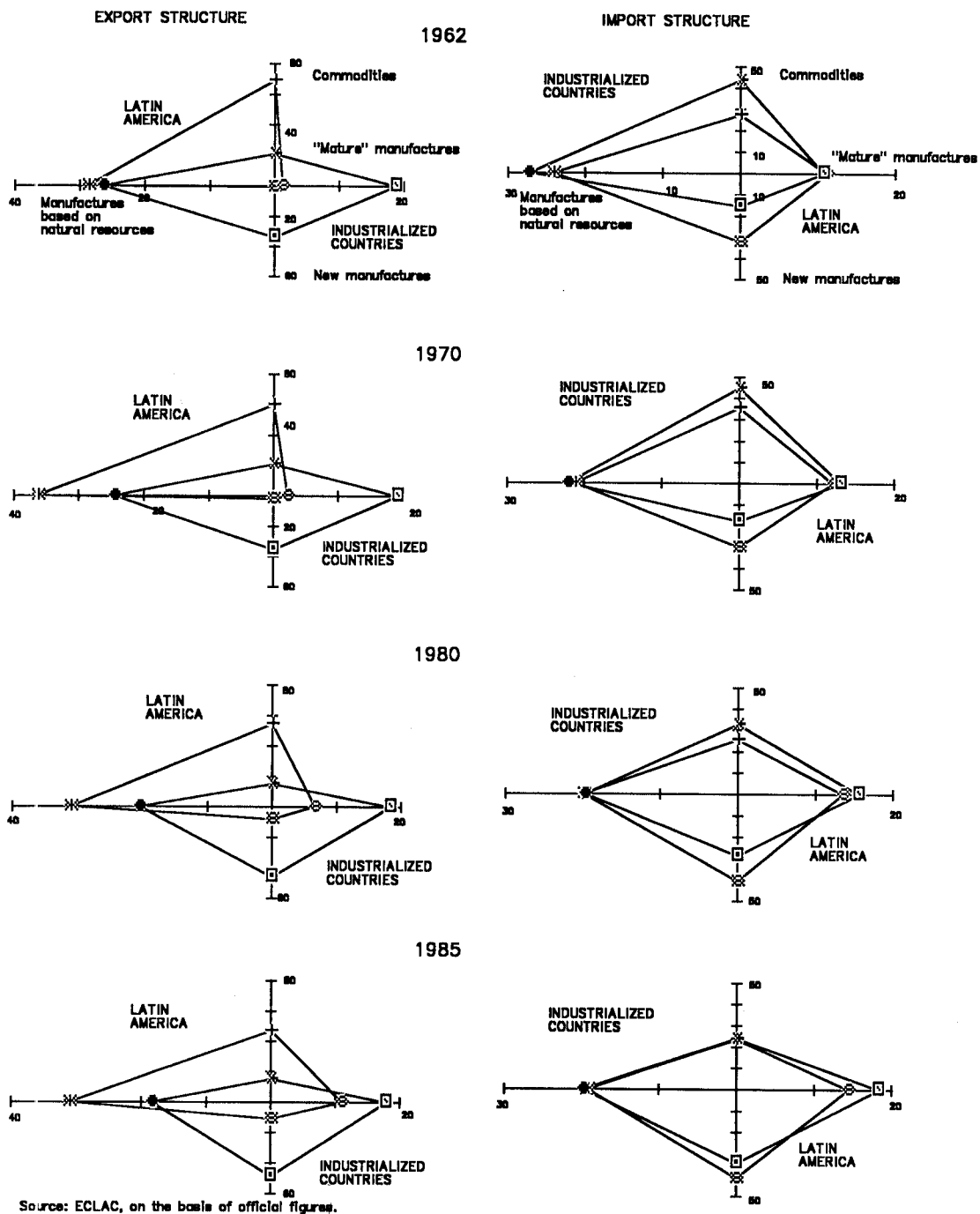


Source: ECLAC, on the basis of official figures.

a/ The reference group used here includes Portugal, the Republic of Korea, Spain, Thailand and the Chinese province of Taiwan.

Figure IV.4

LATIN AMERICA: ASYMMETRICAL INTERNATIONAL INSERTION, 1962-1985



The relationship between technical progress and competitiveness, which plays a major role in this proposal for change, is directly influenced by the behaviour of entrepreneurial agents, the sectoral structure and the links between the domestic and external markets. The interaction of these three factors shapes the pattern of production, and changing this pattern therefore calls for policies which will have an impact on each of them and on the linkages among them.

Two complementary concepts of *competitiveness* are used in this analysis. According to the first of these definitions, the economy as a whole is regarded as being competitive if, within an overall framework of macroeconomic equilibrium, it has the capacity to increase (or at least maintain) its international market share while at the same time raising the standard of living of the population. The second concept of competitiveness applies to a given product or service; in this case, a product or service is competitive if, as a minimum, it meets the standards of efficiency prevailing in the rest of the world as regards resource use and the quality of the product or service. Generally speaking, the first type of competitiveness presupposes the second, at least in the medium term, since it is not possible for a country to increase its international market share within a context of rising real wages ("parallel increase in living standards") unless the "resource use" entailed in producing a given product of a quality meeting international standards is increasingly similar to the best practices prevailing on the market.

The achievement or maintenance of competitiveness as defined in either of the two ways discussed above entails, in its turn, the *absorption of technical change*, i.e., the ability to imitate, adapt and develop production processes, goods and services not previously existing in an economy; in other words, it involves making a transition to new production functions.

Technical progress is essential for the achievement of competitiveness. Firstly, it follows from the above definitions of competitiveness that this is a relative concept involving a comparison between a country's technological practices and the best such

practices to be observed in the market, given comparable supplies of resources; furthermore, it implies that at any given point in time there are some techniques and products which are definitely "better" and some which are clearly "worse", whether these comparisons are made among firms in different countries or among enterprises in a single country. Secondly, technology is more than merely a set of known combinations of inputs or a pool of know-how which is available for use by all at no cost. Indeed, the coexistence of "better" and "worse" techniques is a normal feature of industrial development precisely because technology is not a free good. Finally, since technology is not a free good, business firms have an incentive to make innovations that will help them become more profitable. A firm which introduces innovations is making a technological advance that permits it to enlarge its market share; this puts pressure on its competitors, which will then tend to imitate and if possible improve upon the original innovation. All of this triggers an evolutionary process of innovation and dissemination of "better" techniques and products, thus continually pushing back the technological frontier.

The preceding considerations indicate that the long-term competitiveness of an economy depends on its capacity to surpass or at least keep up with the best such practices; in order to do so, it must be capable of identifying, imitating and adapting new "production functions", as has indeed been done on many occasions in the region (see boxes IV.1 and IV.2).

Finally, some reservations should be expressed concerning the reductionist schools of thought which attribute the uncompetitiveness of the region's economies to the undeniably considerable static inefficiencies which characterized the import-substitution-based process of industrialization seen in Latin America and the Caribbean in the decades following the Second World War. The importance of the steps taken to eliminate these inefficiencies notwithstanding (both those characterizing business enterprises as a consequence of their participation in heavily protected markets and those related to the allocation of resources), such measures are clearly not enough in themselves to sustain, much less increase, long-term competitiveness,

Box IV.1

BRAZILIAN AIRCRAFT CORPORATION (EMBRAER)

Two factors have worked together in making the Brazilian Aircraft Corporation (Empresa Brasileira de Aeronáutica, S.A. (EMBRAER)) an example of a successful State-owned enterprise with an important presence in the international light-aircraft market: first, its highly specialized group of professionals with exceptional entrepreneurial potential, and, second, the support of the State. EMBRAER was originally established as a mixed enterprise, in which the public sector supplied strong financial support, shared the risks involved and provided tax incentives and protective measures.

In 1965, the enterprise completed its Bandeirante model, the first aircraft developed in Brazil by the Aerospace Technology Centre. Engineers from the Aeronautical Technology Institute (ITA) and abroad participated in the project.

The overall strategy of the enterprise was based on an accumulation of know-how and a capacity for technological innovation. It was decided to concentrate on the production of the fuselage and the final assembly of the aircraft, so as to avoid becoming involved in the production of technologically complex components; these were purchased from companies of proven excellence in the industrialized countries. This made it possible to reduce risks, lower investment and

promote the acceptance of the aircraft in those countries.

From the outset, EMBRAER sought to become competitive, gradually increasing the complexity of its products. The selection of the Bandeirante model was based on this policy, which was in turn favoured by the existence of a captive market. New markets were gradually opened up as favourable opportunities ("niches") presented themselves. The international oil crisis provided a good opportunity for the Bandeirante model, because it consumed very little fuel and was well adapted to short flights.

The expansion of EMBRAER was mainly due to the remarkable ability of the enterprise to adapt to domestic and external market conditions. In 1984, 7% of all passenger seats on regional airlines served by light aircraft in the United States were in the Bandeirante. When sales of this model began to decline, the Brasília model, also developed in Brazil, was launched. In addition, the AMX model was created for the military market, in collaboration with the Italian firms AERMACHII and AERITALIA.

In 1988, EMBRAER's sales totalled US\$518 million, bringing it to second place among Brazilian transport enterprises, with a growth rate 40% higher than the previous year and an excellent rate of return.

since they are associated with a given set of existing production functions which lead only to a better use of static comparative advantages. Indeed, the basic purpose of the economic policy measures that are prompted by this interpretation is to eliminate the most glaring "distortions" in the price system, which are an outgrowth of static inefficiencies.

Generally speaking, in response to the intensification of international competition, coupled with the development and growing dissemination of information technologies (microelectronics, computer technologies and telecommunications), the absorption of technical change has become a permanent feature of a wide array of goods and services which include everything from natural resource prospecting, the processing of raw materials

and transport to marketing and financial services. In the developed countries, even processed commodities intended for consumers – such as food products – involve the fulfilment of a set of specifications which make them quite similar, in terms of their technological content, to manufactures that are not based on natural resources. Manufactured consumer goods (clothing, footwear, consumer durables) have also come to be "design-intensive", and an increasing use of information technologies is thus called for in their design, manufacturing and marketing, as is illustrated by Italy's recent experience.

In other words, the dividing line between successful and unsuccessful instances of international insertion is related to the efficient utilization of resources at a given point in time

and to the capacity to undertake activities calling for an increasingly greater addition of "brainpower" or intellectual value.

At this point in the discussion it is important to remember that the definition of competitiveness used here presupposes a

framework of macroeconomic equilibria in which the real price of foreign exchange as well as other macroeconomic variables are such as to permit a reasonable degree of external and internal balance to be maintained over the long term. Thus, it excludes those cases in which competitiveness is lacking or exists only

Box IV.2

COLOMBIA: FLOWER EXPORTS

The production of flowers in Colombia began in 1965, when two firms were founded; during the following two years, another eight firms were added which, by using seeds imported from the United States and having recourse to technical assistance from that country, succeeded in exporting to the United States market carnations and chrysanthemums worth US\$160 000. This was possible thanks to incentives provided under the Vallejo Plan enacted during those years for the purpose of promoting non-traditional exports. By 1980, the number of producers had risen to 153 and exports exceeded US\$100 million, while in 1988 there were 200 producers and the value of flower exports had more than doubled, turning Colombia into the second largest flower exporter in the world and the largest supplier of flowers to the North American market.

Located primarily in the Bogotá savanna and also at Medellín, Cauca and Valle (areas of great population density), the cultivation of flowers has been a major source of employment and has significantly raised the levels of productivity and income of a largely unskilled labour force (including a high percentage of women, many of whom thus provide their family with a second source of income). After familiarizing themselves with modern techniques, workers of this type can adapt their knowledge for use on smallholdings in their places of origin. In addition, the demand for inputs, raw materials and services has risen considerably in the domestic market, since all the major inputs used, with the exception of rose bushes, are of national origin. This, together with the high labour-intensity of these activities, means that 90% of the value of exports by the sector corresponds to national value added.

If technological complexities and marketing logistics are taken into account, the achievement of a high degree of integration in the production of flowers (as shown by the fact that over 16 varieties of flowers are exported to 30 different destinations, including markets as far away as Japan, Australia and Kuwait) is not enough to

ensure an increasing share of the market; protectionist pressures applied by domestic competitors in import markets must also be overcome.

For example, as noted by the President of ASOCOLFLORES (the Colombian Association of Flower Exporters), since 1979 "flowers from Colombia have been the subject of 14 petitions and investigations in the United States... Even though in the majority of these cases concerted action in defence of Colombian exporters prevented the establishment of additional customs barriers and duties, the cost borne by our industry has been very heavy". In this respect, it should be noted that producers have had to renounce the various export incentive mechanisms established by the Government of Colombia (tax credit certificates, Vallejo Plan provisions for capital goods, preferential interest rates on loans from the Export Promotion Fund (PROEXPO), etc.), in addition to paying US\$8 million a year in anti-dumping duties.

An interesting feature of this struggle against restrictions on the entry of flowers from Colombia into the United States market is the action mounted against the attempts of rose producers to secure the establishment of an import quota equivalent to a maximum of 30% of domestic consumption (at present imports cover close to 30% of the rose market, and 80% of them originate in Colombia) under the provisions of the new United States Trade Law. In order to combat that initiative, ASOCOLFLORES established a coalition with the Florida Importers' Association, the Flower Retailers' Association, and the National Supermarkets Association of the United States, and all these bodies submitted their case to Congress jointly. At the same time, ASOCOLFLORES initiated an official process of *rapprochement* with the United States rose producers' organization with the aim of starting a joint campaign to promote the sale of roses, resulting in the formulation of a joint promotion strategy.

fleetingly due to unrealistic and unsustainable exchange policies, which may cause the local currency to become over- or under-valued in terms of foreign currencies.

2. The integral character of changes in production patterns

A large number of factors play a part in the phenomenon of technical progress and, hence, competitiveness, and many of them are hardly reflected in the price system at all. Consequently, although correct pricing may be a precondition for an improvement in the capacity for innovation, a country cannot rely entirely on its effect or on that of isolated measures designed to increase its competitiveness, especially in view of the accumulated technological gap and the magnitude of the effort required to join that group of countries which have been able to combine growth with social equity.

An analysis of the experiences of those countries provides grounds for one generally applicable statement as to the factors which determine the extent of an economy's capacity to generate and absorb technical progress. The generation and adoption of technical progress as well as increasing competitiveness are *systemic processes* in the sense that an economy's technological performance depends to a much greater degree on the presence of a whole series of differing types of synergies and externalities than it does on the optimization efforts of individuals firms in response to changes in the price system (see box IV.3).

Technological opportunities and stumbling blocks, the experience and skills acquired by individuals and organizations, and the capabilities and experience which flow from one economic activity to another tend to establish a framework which, on the one hand, is particular to each country, region or even enterprise and which, on the other, is a basic ingredient in the process of innovation (see box IV.4). This framework causes any given set of strictly economic signals to generate different

incentives, stimuli and limitations in respect of innovation in different countries.

Another element which sheds light on the systemic nature of the phenomena under consideration is the special importance of *institutional frameworks* in accounting for the capacity of different economies to close the technological gap and move on to adopt the best practices in use in different industries, and even to take the lead in certain technologies. As regards what are known as "national systems of innovation", it is worth noting, in addition to their complexities, that: i) all of them involve mixtures of mechanisms and public and private institutions which engage in varying degrees of centralized or decentralized decision-making as to the allocation of resources as part of a process in which the uncertainty inherent in innovation prevents, by definition, optimum courses of action from being identified beforehand; and ii) processes of "institutional innovation" – i.e., the capacity to transform and adapt the institutional schemes supporting innovation in response to changes in the economic environment and in technology itself – are particularly important in maintaining the momentum of technological innovation as the productive apparatus develops.³

Another factor which illustrates the systemic character of technical progress and competitiveness has to do with the *conditions under which interaction takes place between the originators of technological innovations and users*. These conditions can play a crucial role in stimulating or inhibiting business enterprises' capacity to learn and to adapt in a world where information is both imperfect and costly. The experience of the Scandinavian countries illustrates the fairly obvious fact that when a country attains technological maturity (i.e., once technology has become standardized and tends to change more slowly), it becomes less expensive to transmit information over longer geographical and cultural distances.⁴ On the other hand, when major changes in technology are occurring rapidly, the need for geographical

3 C. Freeman, "Japan: A new national system of innovation?", and R. Nelson, "Institutions supporting technical change in the United States", *Technical Change and Economic Theory*, G. Dosi and others (eds.), London, Pinter Publishers, 1988, on the subject of the formal and informal institutions supporting innovation in Japan and in the United States, respectively.

4 E.S. Andersen and Bengt-Ake Lundvall, "Small national systems of innovation facing technological revolutions: an analytical framework", *Small Countries Facing the Technological Revolution*, C. Freeman and B. Lundvall (eds.), London, Pinter Publishers, 1988.

Box IV.3

TECHNOLOGY PARKS IN BRAZIL: THREE ENCOURAGING CASES

The possibility of forming technology parks is not limited to the industrialized countries, and their establishment can bring significant industrial and technological results in the countries of the region, as Brazil's accumulated experience with three such parks located in the State of São Paulo has shown. The judicious combination of centres of higher learning and technological institutes, initially established near a few large user enterprises in high technology sectors and well located in terms of physical infrastructure and the proximity to industrial centres and transport facilities, has resulted in an interesting cluster of traditional and new innovative firms, focused on certain industrial activities and basic technologies.

The first of these, the national aeronautical park at São José dos Campos, has since the 1960s been assembling a group of enterprises, research centres and engineering and technical schools associated with the aeronautical, defence and electronics industries. This complex currently contains some 11 enterprises, including the Brazilian Aircraft Corporation (EMBRAER). Most of them were created by researchers from the various existing technological institutes established since the creation of the Aeronautical Technology Institute (ITA). This complex also contains seven higher education institutions and as many technical schools.

The high technology complex at Campinas, for its part, is connected with the State University at Campinas (UNICAMP), the Catholic University at Campinas, the Brazilian Telecommunications (TELEBRAS) Research Centre and the Information Technology Centre (CTI), and today includes 40 enterprises operating in the sectors of telecommunications, computer processing, and electronic instruments and components.

Similarly, at São Carlos, located next to a conglomerate of high technology enterprises can be found the São Carlos campus of the University of São Paulo and the Federal University of São Carlos, together with the High Technology Park Foundation and the Centre for the Development of Infant Industries. This complex contains 40 enterprises operating in the sectors of new materials, industrial equipment, automation, information technologies, optics, precision mechanics and chemicals.

These three cases illustrate the importance of various forms of long-term governmental action to promote the rise of centres of excellence; these in turn, have attracted or created a number of related industrial enterprises, thereby encouraging the development of a synergetic relationship and a propitious climate for technological innovation.

TECHNOLOGICAL COMPLEXES IN BRAZIL

Location	Campinas	São José dos Campos	São Carlos
Number of enterprises	40	11	40
Predominant sector telecommunications	Electronics/military/electronics	Aerospace/precision mechanics	New materials/optics/
Main teaching, research and development institutions	State University at Campinas (UNICAMP)	Aerospace Technology Centre/Aeronautics Technology Institute (CTA/ITA)	University of São Paulo, São José campus
Research and	Development Centre (CP&D) Information Technology Centre (CTI)	National Space Research Institute (INPE)	Federal University of São Carlos
Jobs directly created	5 500	20 000	600

Box IV.4

THE ELECTRICAL RESEARCH INSTITUTE OF MEXICO

The Instituto de Investigaciones Eléctricas de México (IIE), established in 1975 as a quasi-autonomous public body, was modelled after the Mexican Petroleum Institute which operates in support of Petróleos Mexicanos (PEMEX). The objectives of IIE were to further scientific and technological research in the electricity sector and provide advisory services to the Federal Electricity Commission, the electrical goods industry, and engineering and consulting firms in the sector. The number of research workers in the Institute has increased from 22, when it went into operation in 1976, to over 700 at present.

IIE obtains its income primarily (between 40% and 60%) from the Federal Government; its second source of income (between 13% and 26%) is the sale of services to the Federal Electricity Commission, and the remainder comes from other sales. In recent years IIE has begun to export technological services to Central America, the Caribbean, Canada, Peru and the United States.

IIE's most novel contribution has been its policy of creating enterprises. It experienced a variety of difficulties in transferring technologies to existing enterprises, and for that reason decided to promote the creation of new firms which make intensive use of technology.

To promote the creation of enterprises, IIE participates in the execution of technical feasibility, economic and market studies as well as studies on the organization of enterprises. It

also supports the establishment of pilot groups and temporarily second its own research workers when necessary. It should be noted that, as a result of such transfers, IIE experiences a high degree of staff rotation, which means that it must absorb the cost of replacing staff and training new personnel. However, IIE benefits from the fact that it thus has a group of high-level contacts, in the enterprises, with whom it can exchange experience relating to progress in specialized fields. Nine such new enterprises have been set up and 11 more are in the course of formation.

The most recently established of these enterprises - Incubadora de Empresas Morelos - deserves special mention because it is, as its name indicates, an "incubator of enterprises". In conjunction with a technology park, this venture offers infant enterprises, the following facilities: physical space at low cost; shared office and telecommunications services; technology management in the fields of evaluation, information, procurement of patents and training; services for negotiating bank loans and organizational and marketing services.

Since 1978 both multilateral and bilateral co-operation have played a decisive role in the development and consolidation of IIE and have resulted in the implementation of joint projects, financing for research projects, the donation of equipment, travel opportunities for Mexican research workers, the provision of advisory services by foreign experts, information exchange, and the provision of advisory services to other countries by IIE experts.

and cultural proximity becomes more important. In such cases, the possibility of direct contact and a common cultural context can be of decisive importance for information exchange. The specialization of the Scandinavian countries, the United States and Canada in capital goods and inputs for mining, energy, forestry and food processing activities provides an example of what can be achieved when a synergistic relationship exists between the natural resources and manufacturing sectors.

In contrast to these experiences, the countries of the region have on more than one occasion witnessed the appearance of export activities based on natural resources and involving some

extent of processing which have flourished for a time and then faltered. During these sporadic cycles, such primary export activities have been connected with the rest of the economy (chiefly through financial flows), but no significant technological links have existed between them and other sectors of production.

Nevertheless, the importance of the role which exports based on the processing of natural resources may play at a given point in time should not be overlooked. Indeed, during the difficult transition period of the 1990s, the expansion of such exports may provide a gateway to the exportation of manufactures having a greater technological content, provided that the growth of exports of

semiprocessed natural resources (despite their lower demand elasticities) gives rise to the development of systems of production, transport, marketing and financing which will help create an "export mentality". This catalytic effect, if coupled with a reduction of external constraints, may increase the competitiveness

of a growing range of more dynamic goods and services having a greater technological content. There have already been a number of successful experiences in this regard within the region which are contributing to the learning process and which demonstrate the viability of this process (see box IV.5).

Box IV.5

CHILE: MODERNIZATION OF AGRICULTURE AND THE EXPORT BOOM

Over the past five years, Chilean agriculture has registered extraordinary growth, both in production for the domestic market and – above all – for export. Thus, the agricultural gross domestic product has grown at a cumulative rate of 6.3% per year and the country has become self-sufficient in the production of basic grains and sugar, with significant increases in yields per hectare in the cultivation of wheat, maize, sugar beet, etc. The country's agricultural exports have grown by almost 19% per year, headed by sales of fruit, and have contributed to an appreciable diversification of the export structure and a noteworthy increase in Chile's relative share in fruit exports from the southern hemisphere.

Macroeconomic balances, the adoption of a realistic exchange rate, the general confidence in the continued application of the present rules, the guarantees of the right to property, enhancement of the status of business activities and an increase in the export mentality have all played an important part in the high growth rates obtained. This would not have been possible, however, had it not been for the combination of various factors and processes, some of them long and slow in their gestation, others unconnected with national policies, and others very specifically related to the particular political framework in which the process took place.

A number of initiatives promoted in preceding decades laid the bases for the modernization process. Among these, special mention may be made of the establishment of transport, energy and telecommunications infrastructure; the training of national technicians and engineers; the preparation by the Production Development Corporation (CORFO) of the plan to promote fruit growing (1968) and the boost given to afforestation activities (1966-1973); and the participation by that Corporation in the establishment of enterprises and institutions directly linked with agricultural modernization and research work.

A further factor, in addition to the training of human resources and development of the production infrastructure, was the agrarian reform of 1965-1973, which was considered, by broad consensus, to be necessary in order to overcome structural obstacles to modernization. The application of the Agrarian Reform Law reduced the proportion of the total area accounted for by production units exceeding the legal limit of 80 nominal hectares of irrigated land from 55% to 3%.

Among the various factors which made it possible (once the material bases had been laid) to bring about the noteworthy dynamism displayed by Chilean agriculture in the last five years are, in particular, the advances made in the land and labour markets and the application as from 1983 of a flexible economic policy.

a) *Creating a more dynamic land market*

As from 1974, the authorities began a process of thorough restructuring of agricultural land ownership – only comparable in its wide-ranging nature with the agrarian reform process itself – through public policies and the dynamics of the land market. Of the total area of land originally expropriated, 52% was assigned by the State to eligible beneficiaries of agrarian reform, mainly as family agricultural units; 27% was restored to the former owners on various grounds, and 22% was designated by the Agrarian Reform Corporation (CORA) for transfer, sale by tender, or auction.

b) *Labour organizations and the labour market*

The agrarian reform process took place against the background of an intensive process of organization of rural workers, stimulated by the legislative reforms designed to protect them, with the result that the number of organized workers rose from around 2 000 to 140 000 between 1965 and 1970 and reached a quarter of a million in

1973. The implementation in 1979 of a new labour plan which cancelled the existing legislation and established more restrictive conditions for trade-union organization and activities caused union membership to drop very sharply, so that at its lowest point (1982) it amounted to only 25 000 workers, thereafter rising again slowly.

These developments helped to bring about a situation in which enterprises have greater flexibility in regulating their labour force; there has been a drop in daily wage costs (due to lower wages and the employment of women) and in the aggregate cost of labour (except for permanent employees), as well as a drastic reduction in the cost of work stoppages, which is a critical element at certain times of year and extremely serious in the case of agricultural export activities.

c) *The turnaround in agricultural policy*

In its first phase (1974-1982), agricultural policy was subordinated to the general policy of macroeconomic adjustment and liberalization of the domestic and external markets. In that part of the agricultural sector producing for the domestic market, these measures led to a crisis only comparable to that experienced in 1930, involving, at the gravest moment, drops of around

74% in wheat production and 70% in production of inputs for food agroindustry. In addition to the deterioration in agricultural production for the domestic market, there was serious overindebtedness of agricultural entrepreneurs – reaching a level equal to more than 70% of the gross sectoral product in 1981 – due to changes in the exchange rate and higher interest rates.

The seriousness of the crisis, together with the pressure exerted by producers' organizations, led to the review of sectoral policy involving the following main aspects: establishment of price bands for wheat, sugar beet, dairy products and oils; raising of tariff duties on milk and preferential treatment for domestic suppliers over imports in State purchasing policy; *de facto* protection of domestic meat production on sanitary grounds; the provision by the sugar industry of contracts for the planting of sugar beet in order to absorb labour, etc.

In order to deal with the overindebtedness, two massive renegotiations were carried out and a preferential exchange rate was established for the payment of debts expressed in dollars, while a system of loans secured against objects of value was introduced in order to give access to credit to heavily indebted agriculturists who were unable to provide other guarantees.

3. Competitiveness, technical progress and growth

International trade in manufactures has grown at a faster pace than total world trade, and the difference in growth rates is particularly notable in the case of those manufactures involving a greater degree of technological innovation.⁵ In terms of specific product lines, different items are at the forefront of international trade and technical progress at different times, and a country's possibilities of entering international markets on a solid footing is therefore largely determined by its ability to keep up with international trends in technology. Once these markets have been penetrated, technical progress must be absorbed and innovations have to be made in order to maintain that foothold through the only means that is of lasting effectiveness: the incorporation of intellectual value added into the goods and services being exported. This, in turn, calls for an increasingly skilled labour

force and the strengthening of the domestic entrepreneurial base by, among other means, making use of the various possible ways in which different kinds of links can be formed with sources of foreign investment.

Transnational corporations can help to promote exports at certain times in given sectors in those countries which have a large domestic market or in which the level of wages remains low. However, the solidity of a country's position in the international market is generally determined by the skill level of its population and by its capacity to participate in the ongoing process of technological innovation. More specifically, the soundness of its position will depend on the existence and progress of national firms capable of competing – either on their own or with the aid of inputs of foreign capital – against the firms supplying the international market (see box IV.6).

Changes in productivity and the absorption of technical progress are heavily influenced by the

⁵ See UNCTAD, *Trade and Development Report, 1989* (UNCTAD/TDR/9). United Nations publication, Sales No. E.89.II.D.14.

Box IV.6

ARGENTINA: MICRO SISTEMAS S.A.

Micro Sistemas S.A. was set up in 1976 as a small enterprise to provide computerized data processing services. After a little while, in view of the difficulties of adaptation presented by some imported peripheral equipment, the founding partners in the firm - who had professional experience in big subsidiary firms in the field - designed their first product: a machine for recording and checking information on disks, which was put on the market two years after the firm had originally been set up. The comparative advantages of the enterprise were its capacity to give better satisfaction to various demands of users, to ensure good compatibility with existing equipment and to provide more flexible after-sales service to clients.

Later on, the enterprise gradually improved its design capacity so that it was able to make a number of innovations of varying complexity, including the design of a series of multi-application micro computers, including compatible personal computers; various kinds of peripheral equipment, integrated "turnkey" projects and the design of some components for that equipment. To this end, it was necessary to open an office in the United States, so as to have a "window" giving access to the latest designs and components.

In 1985 Micro Sistemas was awarded one of the projects for the manufacture of electronic products provided for under the arrangements to promote the Argentine informatics industry. Two important events made it possible subsequently to expand the original project, thus marking the entry of Micro Sistemas onto a new stage of entrepreneurial and technological consolidation. The first of these was the incorporation as a majority partner of an engineering design firm belonging to the Argentine industrial group Pérez-Companc, thus giving access to greater financial and entrepreneurial capacity which made it possible to expand the scale of production. The second was the signing of a technology transfer contract with IBM - the first such contract awarded by that enterprise anywhere in the world - for the manufacture of a specialized line of products for the banking market.

The last project, which was finally approved in 1987, represented an investment of over US\$15 million in the Córdoba area and will involve research and development expenditures of some US\$8 million. The firm now provides 1 700 jobs, and in 1989 its net sales were estimated at US\$120 million, including US\$10 million of exports.

types of relationships existing within firms and branches of industry, which, in turn, have an impact on the institutional, social and political makeup of a country. In this sense, the stability of the relations among entrepreneurs, professionals, technicians and manual workers and their capacity to take concerted action to raise productivity are closely linked to the existence of representative organizations for these groups whose leadership's legitimacy stems precisely from their capacity to mount concerted efforts.

By permitting the incorporation of new generations of equipment and products, economic growth helps to raise productivity and international competitiveness. Moreover, the expansion of the internal (national and regional) market, which is associated with economic growth and which is promoted by the

presence of social equity, provides an indispensable basis for the technological learning process (see box IV.7). This, in its turn, is a precondition for securing a greater share of international trade. The mutual reinforcement of economic growth and competitiveness - which also involves meeting certain standards of equity, financial restraint and technological know-how - is one of the mainstays of successful industrialization processes.

In Latin America and the Caribbean, as a result of certain shortcomings in terms of equity and financial restraint and as a consequence of the type and level of protectionism, progress in the areas of growth and competitiveness has been fitful, and the weakness of some of the links in this process has periodically become apparent. These advances and setbacks clearly do not correspond to the cycles of economic

growth seen in industrialized societies, where the general trend of these fluctuations is towards a steadily increasing absorption of technical change.

4. Changes in production patterns, growth and equity

a) *Competitiveness and equity*

Different economies' contrasting patterns of external insertion reveal two facts about the link between competitiveness and equity. The first is that not all export booms lead to an improvement in equity; the second is that the absence of a positive link between competitiveness and equity will sooner or later affect an economy's growth.

If international competitiveness is attained at the expense of workers' wages, it will have a regressive effect on the distributive structure. If, moreover, the resources generated during the initial phase of the export boom are diverted to consumption or transferred out of the country rather than being channeled towards the absorption of technical change via investment, then eventually not only the level of equity but the level of competitiveness itself will deteriorate as a consequence of the declining importance of the cost of labour as a stimulus to competition in new production processes. In this case what we have is a *spurious form of competitiveness*, which should not be mistaken for the *genuine competitiveness* which stems from the absorption of technological change.

Box IV.7

POULTRY PRODUCTION COMPLEXES IN BRAZIL

The development of poultry production complexes in Brazil illustrates the systemic nature of a process of competitive insertion into foreign trade and the capacity of agroindustries to inject dynamism and contribute to the incorporation of technical progress through their links with agriculture (including small-scale family production) and with the capital goods industry.

The monopoly of patents on pure poultry strains is in the hands of a small number of countries, so that the modern poultry production sector of the remaining countries is based on the importation of second, third or even fourth-generation material. In Brazil, the importation of second-generation poultry was restricted in 1975, and this measure led the transnational companies established in the country to begin the local production of breeding stock. A Brazilian firm embarked on genetic improvement activities and was thus able to develop three strains of its own which covered 5% of the market. Only in the second half of the 1980s, however, was the Agroceres company able, after a series of frustrated attempts, to gain access to the technology needed for the breeding of original reproductive strains adapted to the conditions of the country.

From the beginning of the modernization process up to its consolidation (1960 to 1970), poultry production grew at a cumulative annual rate of over 11%. From the time of its consolidation up to the initiation of export activities, the growth rate was around 8%, and

from then on, with external demand added to domestic demand (1975 to 1987), the annual growth rate once again rose to levels close to 11%. The share of exports in total production came to nearly 20% in several years of the past decade, so that between 1981 and 1986 Brazil became the second biggest poultry exporter after France, displacing countries with a much longer tradition in this market, such as Holland, Hungary, Denmark, China and Germany.

ment and modernization of maize production (this grain accounts for 50% of the cost of feed and nearly three-quarters of its volume), as well as advances in hybrid seeds, fertilizers and the management practices which are an integral part of the modernization process, was closely linked to the demands generated by the expansion of the poultry industry and the participation in it of producers ranging from family-type enterprises to big enterprises.

Poultry production is thus an activity in which the dependence on external inputs – even those which involve activities of the highest complexity, such as the production of basic genetic material – has been reduced to the minimum. Likewise, a comparative analysis of vertically integrated enterprises and enterprises which decided to integrate small producers around them suggests that, in some circumstances, certain forms of linkages between agroindustrial enterprises and small producers may represent more competitive alternatives than forms of vertical integration and may generate simultaneous advantages both for agroindustry and for small producers.

The foregoing does not preclude the possibility that some exports based on inexpensive labour may represent the first step in a process leading to the achievement of genuine competitiveness. In fact, and in contrast to what has occurred in other regions, the Latin American countries have underestimated the potential of such a course of action. For example, the experiences of some Southeast Asian countries demonstrate that, once a basic skill threshold has been passed, it is possible to raise the level of international competitiveness through a technical modernization process which permits a gradual transition to be made from a type of competitiveness based on low-cost labour to one based on the progressive introduction of new processes and the production of new goods and services. Of course, if a development strategy based on labour-intensive exports requiring a certain degree of manpower skills is to be effective, then basic education must be provided on a mass scale and the nutritional and health conditions of the population must be upgraded.

Another spurious form of competitiveness is found when an economy's international insertion is based on a plentiful supply of natural resources which are largely owned by a small group or by a number of public enterprises. In the first case, the benefits may end up being concentrated in the hands of these groups. If, in addition, these groups divert their earnings to consumption or send them out of the country, a pattern of insertion based on the maintenance of income differentials tends to become consolidated. In the long run, however, these incomes will decline or evaporate altogether as the incorporation of technical progress in competitor countries proceeds. When, on the other hand, the most valuable natural resources are controlled by public enterprises, these firms may come to be virtual bureaucratic fiefdoms. In this case, a significant proportion of the income generated by the export sector may be retained by these enterprises in the form of higher remunerations and profits than those earned in other production activities. So long as this feudalistic

mentality persists – a mentality which is sometimes the basis upon which the export sector functions – a changeover of ownership from the public to the private sector or vice versa will by no means necessarily alter the basic aspects of these phenomena.

In contrast, in cases where competitiveness and equity have reinforced one another, the following phenomena have been observed to differing extents: i) a process of change in the agricultural sector leading to the establishment of relatively uniform agrarian structures and to considerable increases in farm productivity, and ultimately to the creation of a competitive industrial system; ii) a relatively even distribution of access to ownership, in conjunction with the establishment of medium- and small-scale enterprises which are closely linked to the production system as a whole and which have achieved comparatively high levels of productivity; iii) a more highly skilled labour force and the establishment of universal education on a broader and more fully integrated social basis; iv) the spread of the industrial mentality to the society as a whole, which facilitates the absorption of technical progress by the various activities; and vi) the use of public finances as an important redistributive tool.

The foregoing does not purport to be an exhaustive list of all the conditions necessary to ensure that the achievement of competitiveness will result in greater equity, but is merely a means of illustrating the types of combinations of phenomena found in economies in which an increase in competitiveness has led to an improvement in terms of social equity and in which, as a result, the economic buoyancy deriving from an economy's international insertion has contributed to the expansion of internal markets.

b) *Equity and growth*

As is well known, the debate concerning the many reciprocal relationships and possible conflicts between growth and social equity has been going on for a long time, and it would be beyond the scope of this document to review that controversy here.⁶ Nonetheless, since the

⁶ See, for example, ECLAC, *Development, Change and Equity: Vanquishing Poverty* (LC/G.1448), Santiago, Chile, 1986; *Latin American and Caribbean Development: Obstacles, Requirements and Options* (LC/G.1440-P), Cuadernos de la CEPAL series, No. 55, Santiago, Chile, 1987, United Nations publication, Sales No. E.87.II.G.9, pp. 86-95; and *Restrictions on Sustained Development in Latin America and the Caribbean and the Requisites for Overcoming Them* (LC/G.1488/Rev.1), Santiago, Chile, February 1988, pp. 49-56.

point has repeatedly been made in the preceding discussion that the types of changes in production patterns which are being advocated are compatible with social equity, a few observations concerning the links among growth, changes in production patterns and social equity would appear to be appropriate.

Firstly, in cases where changes in production patterns contribute to growth, this will certainly pave the way for the adoption of a distributive policy, although it may not be enough in itself to bring this about. Secondly, if growth is achieved on the basis of rising levels of productivity, then the application of a distributive policy is even more likely, since it will then be possible to link wage increases to increases in productivity. This will probably not be done automatically either, nor will it improve the situation of the large number of people who are not involved in activities in which technical innovation is taking place.

Changing production patterns and the resulting accumulation of technological expertise are medium-term processes and achievements, and it would therefore be unrealistic to expect them to be sufficiently dynamic to encompass all low-productivity and low-income sectors, at least for quite some time. Furthermore, the rapid expansion of a highly productive sector of goods and services may heighten, at least temporarily, the income disparities between that sector and the informal urban and traditional rural sectors.

The existence of differing levels of productivity is the structural source of a good deal of the social inequity which is maintained by the prevailing development patterns in the region. The large scope of informal urban economic activities and the extent of rural backwardness are the most telling evidence of the fact that technical progress and its benefits do not reach significant proportions of the population, which remain socially marginalized and economically insecure.

While the underutilization of the labour force has historically been a serious problem in most

of the Latin American and Caribbean countries, the economic crisis of the 1980s has aggravated this situation, as well as causing productivity and income differentials to widen and real wages to fall behind increases in productivity. In view of the fact that these conditions have been compounded by demographic variables such as the growth rate of the region's economically active population and the mounting number of women who are entering the labour market, it is clear that a sharp decrease in underemployment cannot be expected in the new few years.

In many of the region's countries even the most optimistic projections in regard to the productive absorption of the labour force indicate that high rates of underemployment will be an inevitable socioeconomic reality, at least until the end of the decade.⁷ Of course, the size of the informal urban sector and the traditional rural sector varies considerably from one country to another in the region, as does the way in which the former interacts with the most dynamic sectors in the economy. This is also true of educational levels, which are a crucial variable in determining the extent of occupational mobility and of increases in individual worker productivity.

It follows from the above observations that in order to achieve economic growth together with a reasonable increase in equity, in addition to striving to ensure that its modern sectors will have a greater amount of production capacity, each country also needs to make an effort to raise the productivity and income levels of the more backward sectors, and these efforts will have to be geared to the relative levels of underemployment among the total productive population. Given that growth with equity requires that there be greater homogeneity as regards the productive capacity of the labour force, the phenomenon of the informal economy – and the marginality it entails – cannot be ignored when drawing the general outlines of the medium-term development path of the region. Therefore, programmes designed to help low-productivity (and especially

⁷ According to ECLAC sources, the economic growth rates required in order for a substantial decrease in the total underutilization of the labour force to occur are much higher than those indicated by any realistic projection. In Bolivia, for example, an annual GDP growth rate of 13.4% would be needed in order to lower the total rate of underutilization from 41.5% (1980) to 10% by the year 2000. See ECLAC, *Dinámica del subempleo en América Latina*, Estudios e Informes de la CEPAL series, No. 10, Santiago, Chile, 1981, United Nations publication, Sales No. S.81.II.G.15.

informal) sectors to optimize their own activities and to participate on a better footing in the national economy must be an integral part of development strategies aimed at combining growth with greater equity.⁸

In order to accomplish this, certain biases need to be incorporated into policies designed to bring about changes in production patterns. These include the following: firstly, resources need to be allocated for mass training programmes in the informal sector, if possible on a nationwide scale, in order to increase micro-enterprises' and self-employed persons' capacity to sustain their productive activities; secondly, an effort has to be made to provide self-employed persons and micro-enterprises with greater marketing opportunities and with appropriate managerial skills so that they can raise their income levels and gain greater access to credit; and thirdly, training and financing need to be promoted in rural areas where peasant sectors are experiencing problems with respect to food production and where the number of people involved is high or represents a large proportion of the rural population. In short, major efforts need to be made to support the most backward sectors and areas so that they can raise their productivity and improve their level of well-being within the limits imposed by the type of activity in which they are engaged.

In order to combine growth with equity, resources also have to be made available both for strategic research to support a selective process of specialization and for the advancement of the less productive sectors through their articulation with more dynamic activities. Since the establishment of new production patterns cannot be expected to achieve the absorption of the entire underemployed population in the modern sectors of the economy within the space of this decade, an effort will have to be made to help create the necessary conditions in the informal sector to raise that sector's income levels, to provide occupational stability and to permit a progressive consolidation of the managerial, organizational, administrative and marketing activities of the enterprises in low-productivity spheres.

In addition to the foregoing, other factors which should also be considered in relation to the objective of combining growth with equity are the following: pressures on saving and consumption, means of bringing social services more closely into line with the needs of the poorest sectors of the population, and the promotion of participation.

With respect to the first of these factors, the experiences of countries whose development processes have combined growth with equity indicate that the higher-income sectors' greater propensity to save appears to induce and legitimize similar behaviour on the part of middle- and low-income sectors. Empirical evidence shows that in order for there to be a positive relationship between growth and equity, the progressive redistribution of income must go hand in hand with behavioural changes in the various strata of society such that a greater propensity to save and, complementarily, greater restraint in terms of the consumption patterns of high-income sectors are achieved. However, in Latin America and the Caribbean – in contrast to newly industrialized countries in which the goals of growth and equity have coalesced – a greater share of the investment effort appears to be directed towards sustaining, *in the short run*, the *currently* accessible consumption pattern rather than towards expanding production capacity *with a view to the external market or to future consumption*.

Improving the fit between social services and the needs of the poorest sectors of the population is a subject involving a number of different aspects.⁹ Firstly, the efficient targeting of policies and assistance programmes aimed at satisfying the most urgent, basic requirements – food, housing, health care and basic education – of those sectors least able to meet their most pressing needs is recognized as being absolutely essential. Secondly, there is quite widespread agreement as to the fact that certain institutional aspects of the provision of social services need to be restructured in order to increase their effectiveness, to permit the most pressing needs of the poorest sectors to be identified more accurately, to speed up the provision of essential services and to foster the

⁸ ECLAC, *El desarrollo social en los años noventa: principales opciones* (LC/R.703/Rev.1), Santiago, Chile, December 1988.

⁹ ECLAC, *Desarrollo equitativo: algunas sugerencias para la acción* (LC/R.628), Santiago, Chile, 1987.

participation of the community in the satisfaction of basic needs. Thirdly, there is an acknowledged need to improve some of the society-wide services which are provided, such as hospital care and basic education. Finally, and – in terms of the challenge of growth with equity – most importantly, the supply and use of social services must be oriented towards the more productive development of the persons concerned in order to make them capable of playing a more dynamic role in the economic system. This is the essence of a human resources development policy whose goal is to combine greater equity with increased productivity.

Finally, greater equity can be promoted through the development of a broad range of participatory organizations and movements which are controlled by their members and directed towards fostering mutual aid and reciprocity and helping the most

underprivileged groups to make their needs known to the administrative agencies of the State in a more effective manner. This area of endeavour relates to the definition of social rights and their assertion and to the creation of groups to provide assistance in such respects as gaining access to courts of law and groups having the capabilities to investigate and take action on citizens' complaints. These manifestations of the quest for greater equity can help to fulfil two important needs at relatively little cost to the State: i) the protection of people against arbitrary action and extortion by agents of the State, which is one of the most deeply-felt needs of underprivileged sectors in the region, even under ostensibly democratic governments; and ii) protection against discrimination or abuses on the part of private employers and government employees on the basis of a person's sex or ethnic identity.

B. CHANGING PRODUCTION PATTERNS: SOME DILEMMAS

Criticism of the substitutive industrialization process of Latin America takes two very different forms:¹⁰ one school of thought sees the slowness of economic growth as being the result of problems related to external factors (chiefly the trends in international trade and the external debt), while the other regards this lack of vitality as being the consequence of an inefficient structure developed during a wave of overprotectionism which has blocked or hindered the reception of market signals.

Proposals aimed at bringing about a rapid, across-the-board opening of the economy to outside competition and at allowing international prices and unrestricted market signals to govern domestic activity are the corollary to the view that the only salvageable industries are those that are capable of withstanding, in the short term, the impact of international competition. On the other hand, proposals aimed at the continuation and consolidation of the traditional model of industrialization, which emphasize the building

of a "complete" form of industrialization directed towards the domestic market, are often the corollary to contentment with the import substitution-based form of industrialization.

The first of these views underestimates both the possible social costs of dismantling part of the industrial complex and the possibility that some of the industries in question could, within a different policy framework, serve as the basis for an increase in external competitiveness. This view is thus founded upon a perhaps oversimplified, exogenous interpretation of the technological incorporation and learning process of firms and institutions. The second position, on the other hand, underestimates the crucial role which a dynamic insertion in international trade based on genuine competitiveness plays even in the achievement of its own objective, i.e., growth coupled with greater equity, with the latter concept being understood as a broad-ranging and lasting improvement in the population's access to essential goods and services.

¹⁰ As is also true of table IV.3, the following discussion is not intended to provide a complete picture of the many-faceted controversy which has surrounded the subject of development since the end of the Second World War and, hence, does not purport to do justice to any of its many components or versions – much less to characterize specific national situations. Rather, its purpose is to help provide an organized framework for the consideration of the dilemmas to be dealt with and of the policy lines which may help make the idea of changing the region's production patterns a workable one.

During the 1980s, the demands placed on the countries in regard to the servicing of the external debt had the effect of reinforcing the first of these views and fueling the controversy concerning various problems which had become of increasing concern as discontent with the results of the preceding phase of industrialization became more widespread.

The debate tended to centre on those aspects which had defined the production pattern formed during the period 1950-1970: the orientation towards the domestic market, the leading role of the manufacturing sector, the linkages between the public and private sectors, and the macroeconomic and sectoral policy package which had influenced the aggregate performance of this assemblage of entrepreneurial agents, sectors and markets.

Identifying the nature of the changes in production patterns to be sought in the 1990s involves defining a position on some of the issues which have dominated the debate on strategies in this regard. The character and relevance of these issues varies from one country to another in the region. The preceding course of events, current conditions, the outlook as regards future economic performance, institutional capabilities, the size of the country and its geopolitical position all have a decisive influence on the significance of each of these issues and problems in each of the countries of the region (see table IV.3).

1. Linkages between the internal and external markets

In most of the Latin American countries, the manufacturing sector's orientation towards the domestic market as a consequence of the import-substitution strategy heavily contributed to the emergence of an entrepreneurial and institutional base. However, because it was retained beyond the point where it ceased to be necessary, this orientation ultimately discouraged the absorption and dissemination of technical progress as a major variable in the economic performance of business firms. Furthermore, due to the combination of tools used to promote the development of industry, the extent of effective protection received by the various sectors or the various activities within a given sector differed a great deal. Whereas in some branches of industry the effective level of

protection reached over 1 000%, in others it was very low, and in some sectors of agriculture or mining it was even negative at some points.

In more general terms, the combination of very high and differing tariffs with severe quantitative restrictions on imports of manufactures and relatively low real exchange rates, which was characteristic of many countries' economic policies, gave their policy a strong anti-export bias that not only limited the growth of external sales but their diversification as well. This policy package also tended to exacerbate the long-standing balance-of-payments disequilibria which have been a structural trait particular to the region's development style. Thus, when the industrial sector becomes the growth leader in a situation where the primary sector has traditionally been called upon to generate foreign exchange while the industrial and services sectors are the users of that foreign exchange, it is not surprising that the faster the economy grows, the faster the demand for imports will grow as well.

This policy package also gave rise to an "inefficiency illusion" in more than a few industrial activities. In effect, the high tariffs and quantitative restrictions meant that industries had to buy their inputs and capital goods, whether they were domestically-produced or imported, at prices substantially above international levels. On the other side of the coin, given the absence of export subsidies they received no more than the international price for the products they sold abroad. Hence, in practice, the total exchange rate for exports (i.e., the exchange rate plus the export subsidies per dollar of exports) was much lower than the total exchange rate at which inputs and capital goods had to be acquired (the exchange rate plus tariffs plus the effect of the direct restrictions per dollar of imports). Under such circumstances, many activities appeared to be uncompetitive at the international level and the prospects for exporting their products were therefore seen as being poor, even when these activities were efficient in terms of the amount of real resources they used per unit produced.

The application of this combination of commercial and exchange policies, in conjunction with a relatively large supply of natural resources, also played a part in delaying and weakening the lengthy technological

Table IV.3
SPECIFIC OBJECTIVES: SIMPLIFIED SCHEME

<i>Orthodox thinking of the 1950s and 1960s</i>	<i>Orthodox thinking of the 1980s</i>	<i>Changing the pattern of production in the 1990s</i>
<p>1) <i>Linkages between the internal and external markets</i></p> <ul style="list-style-type: none"> - Growth based on the expansion of manufacturing output for the domestic market. - International competitiveness (basically lacking in the industrial sector). - Low level of technological requirements associated with the supply of a captive domestic market. 	<ul style="list-style-type: none"> - The restructuring of production so as to make the servicing of the external debt economically feasible. - Based on natural resources and low wage levels. - Micro-economic issues addressed through the operation of the market. 	<ul style="list-style-type: none"> - Changes in production patterns guided by considerations of genuine competitiveness and social equity. - Buttressed by the incorporation of technical progress and higher productivity. - Joint public and private efforts are decisive for international competitiveness. Strengthening of national systems of innovation.
<p>2) <i>Production sector linkages</i></p> <p>The production structure is modified in line with the growth of industry oriented towards the domestic market. The natural resources sector expands on the basis of an export orientation with few industrial linkages. Agriculture is modernized in limited areas, while a heterogeneous peasant sector is maintained. Physical infrastructure supports, on the one hand, the urban industrial bias and, on the other, the exportation of natural resources. Little development of industrial producer services associated with the demands of international competition.</p>	<p>Changes in the production structure in response to the demands associated with the expansion of exports; in some countries, in response to moves to open the economy up to imports, to the restriction of public funds for infrastructure and to the shrinkage of the domestic market for manufactures. Questions raised as to the inefficiency of the previous structure of production.</p>	<p>The reorientation of industry towards external markets, creating conditions increasingly conducive to forward and backward linkages with natural resource sectors. Major innovations in the management of physical infrastructure, with priority being given to maintenance and new facilities linked with the reorientation of production in the industrial sector. Emphasis on telecommunications. Support for the services required to permit an increasing international insertion of the production apparatus.</p>
<p>3) <i>Interaction between public and private agents</i></p> <ul style="list-style-type: none"> - Role of the State: industrialization for the domestic market. - Broad-based, unselective government regulation, with a marked lack of correspondence between the range of objectives and the institutional capacity for evaluation. - Development of an entrepreneurial base sheltered by protectionism and by public-sector support. Pre-eminence of large firms and economic groups. Relations in the area of co-operation are lacking in transparency and focus on short-term issues. - Predominance of numerous, insufficiently co-ordinated sectoral programmes. The effect of micro-economic disequilibria is underestimated. 	<ul style="list-style-type: none"> - Reduce the role of the State. - Widespread deregulation and the use of the market to guide decision-making by economic agents. - Public sector absorbs external liabilities of private sector. - Macro-economic equilibria are perceived as being a sufficient condition for development. Widespread questioning of sectoral programmes. 	<ul style="list-style-type: none"> - Promotion of genuine competitiveness and social equity. - Clear definition of the areas subject to government regulation and of others in which market mechanisms are to prevail. Superior institutional performance in areas of selective intervention. Primary government responsibility in supervising the results of the action of the market. - Strategic pooling of efforts of the State and the entrepreneurial sector and transparency between them. Differentiation and legitimization of their respective roles. - Macro-economic equilibria as a necessary condition for development, complemented by truly selective sectoral policies.

learning process which, in other regions, allowed some newly industrialized countries to make the transition from exporting natural resources and products intensive in cheap labour to goods and services having an increasingly large technological content.

During the 1980s, the imperative of servicing the external debt and the stagnation of the internal market helped to underscore the importance of exports, on the one hand, and, on the other, the precariousness of the region's technological base. Actually, as far back as the mid-1970s various institutions, including ECLAC,¹¹ had proposed that priority should be placed on exports and especially on exports of manufactures, but it took the crisis of the 1980s to spawn widespread agreement on this point, since, although in the early days of the crisis many countries had no choice but to resort to the timeworn recipe of imposing heavier restrictions on imported products, the need to generate large trade surpluses year after year in order to meet their financial obligations ultimately made it necessary for them to adopt measures designed to lead to the long-term development of export activities (see box IV.8).

Hence, the first specific objective to be proposed for the changes in production patterns advocated for the 1990s is that of strengthening the international insertion of the production system.

This then raises the question as to the degree of openness to trade which is most conducive to the creation of a competitive productive structure. Generally speaking, the prevailing idea in the region is that the present state of affairs calls for a progressively greater exposure

of production units to external competition. Accordingly, the debate has focused on such issues as how rapid and intense the process of opening up the region's economies should be, what commercial policy tools should be used to regulate foreign trade, and what complementary measures should be adopted to facilitate the adjustment of the production sector (see box IV.9).

A first important point to be made in this connection is that proposing the adoption of a policy designed to open up trade does not necessarily mean that a *laissez-faire* policy is being advocated. In fact, a policy of tariff reduction is compatible with widely varying degrees of State intervention in other spheres of the economy. For example, it is entirely conceivable that a policy aimed at opening up an economy to trade through the lowering of tariffs and quantitative restrictions could be implemented in tandem with the maintenance or even an increase in the State's role in promoting changes in production patterns or in support of social equity. Indeed, the liberalization of trade is compatible with differing degrees of State intervention in the external trade sector *itself*, as is illustrated by the vigorous export promotion policies of some of the newly industrialized countries of Asia.

A second important point is that there is more than one means of opening up an economy or, to put it in a more general way, of taking full advantage of the opportunities offered by international trade. A comparative analysis of different countries' experiences does, however, indicate that there are two conditions which must be fulfilled in order to achieve a better insertion in the world economy. The first is that

11 "...the process of industrialization suffers from three main flaws which have weakened its contribution to improving the standard of living. These are: a) all industrialization activity is directed towards the domestic market; b) the choice of industries to be established has been based more on circumstantial reasons than on considerations of economic yield; and c) industrialization has failed to overcome the external vulnerability of the Latin American countries. The excessive channelling of industry towards the domestic market is a result of the development policy pursued in the Latin American countries and of the lack of international incentives to exports of industrial goods from the region. Development policies have been discriminatory as regards exports. Assistance has been given - through tariffs or other restrictions - to industrial production for internal consumption but not to industrial production for export. The production of many industrial goods has thus been developed at a cost far above the international level, when they could have been obtained with a much smaller cost differential in exchange for exports of other industrial products which might have been produced more profitably. The same could be said of new lines of primary commodities for export and even of traditional export commodities within certain relatively narrow limits. It would not, therefore, have been enough to place production for export on an equal footing with production for the domestic market. In the large centres, measures would have had to be adopted to facilitate imports of certain industrial goods from the developing countries, thereby giving these countries a greater capacity to import precisely those goods for which there is a greater difference in cost. In this way, a very useful division of labour would have developed in the industrial field, very different from the traditional pattern of trading primary commodities for industrial goods. Until recently, no serious effort had been made to establish such a division of industrial activities among the countries of Latin America." ECLAC, *Economic Development, Planning and International Co-operation* (E/CN.12/582/Rev.1), June 1961, United Nations publication, Sales No. 61.II.G.6, p. 14.

Box IV.8

TRADE LIBERALIZATION AND INDUSTRIAL RESTRUCTURING IN CHILE

The industrialization strategy based on import substitution raised the weight of the Chilean industrial sector in the GDP from 17% in 1940 to 24% in 1970. However, the high level of effective protection and its dispersion – which ranged from -23% to +1 000% in this same sector – go a long way towards explaining the inefficiency observed in the functioning of industry during the period under examination: excessive use of highly capital-intensive technologies, limited job-creation capacity, under-utilization of industrial plants, monopolization of markets, high costs and low levels of quality, and the transfer of inefficiency to activities which, although relatively competitive in themselves, were obliged to obtain their inputs on the national market. Moreover, it was obvious that the industrialization process was running out of steam. Thus, industrial growth averaged only 4.4% per year during the period under consideration and – what is worse – the volume of per capita exports stagnated during 30 years, with exports amounting to only 14% of the GDP in 1973.

A central element of the economic policy adopted by the military government which took power in that year was opening-up to the exterior. Through this, it was sought to raise the weight of exports (and hence also of imports) in the GDP and to improve the allocation of resources, taking advantage of the country's comparative advantages and the competitive pressures from the exterior. As the economic policy also pursued other objectives (including the reduction of inflation from its initial rate of 600% and subsequently – in 1975 and 1982 – the execution of an external adjustment), four different stages should be distinguished in the trade liberalization process. The first of these lasted from 1974 to 1976: in it, quantitative controls were eliminated and tariffs were reduced from a simple average of over 100% (largely representing redundant protection) to around 35%, while the real exchange rate was sharply increased. In the second phase, between 1976 and 1981, tariffs were already reduced as early as 1979 to an across-the-board level of 10%, except for automobiles. Heavy external indebtedness made it possible to use the exchange rate for anti-inflationary purposes, so that inflation lagged behind by 30%-50%. Between 1982 and 1984, because of the external shock, the real exchange rate was raised by 30% and tariffs were raised from 10% to 35%. Finally, between 1985 and 1989, tariffs were once again lowered, this time from 35% to 15%; the real exchange rate was raised by 50%; an incentive of 5%-10% was introduced for new exports (i.e., those worth less than about US\$10 million), and permission was given for recovery of the Value Added Tax (IVA) paid on inputs used in export production.

During the period of trade liberalization, the volume of exports grew by nearly 9% per year, so that the coefficient of exports in the GDP rose

from 14% in 1973 to nearly 33% in 1989. Likewise, non-traditional exports increased from 1% of the GDP in 1973 to over 12% in 1989, while industrial exports rose from less than 1% to over 6% by the same year (although this latter increase was concentrated in four sectors: food industry, lumber, chemical products and basic metals).

The product, and particularly the industrial product, grew only slightly in the course of the 16 years, but this was due basically to the sharp falls (between 15% and 20%) associated with the anti-inflation policy in 1974-1975 and the external adjustment in 1982-1983, rather than to the trade liberalization (indeed, tariffs were raised in 1982-1983). Indeed, in both of the periods (1976-1979 and 1985-1989) in which tariffs were reduced from 35% to 10% (or 15%) the industrial product grew steadily: in 1976-1979 under the incentive of the growing demand derived from external indebtedness (which was only a temporary phenomenon), and in 1985-1989 because of the devaluation of the currency to compensate for the tariff reductions (which was thus a more permanent impulse).

This experience suggests that trade liberalization, when accompanied by a high exchange rate, can bring about a permanent and significant increase in the weight of exports (including industrial exports) in the product. At the same time, a restructuring of production takes place, above all in the industrial sector and even within the different branches of that sector, according to their conversion capacity. In general, enterprises learned to compete and apparently became more efficient. Sectors which were not capable of standing up to foreign competition (transport equipment and electrical goods, for example) suffered severe contraction. There were others, however, which in spite of having experienced great difficulties nevertheless managed to recover, to reduce costs, to improve the quality of their products and even to become exporters (textiles and clothing, plastic goods, household electrical goods and capital goods). Some other sectors showed that in spite of the protection they had enjoyed in the substitution phase, they were nevertheless relatively competitive at the international level: without making major innovations and in spite of the crisis, they stood up well to the new conditions. It is interesting to note that this group included enterprises set up under the auspices of the State (steel, petrochemicals, sugar). A conclusion that can be drawn from the experience is that the trade liberalization was positive in itself, in that it brought about greater efficiency and competitiveness of industry, but the way in which it was carried out – especially the speed of the process and the exchange and financial policies which accompanied it, as well as the lack of complementary measures to facilitate the adaptation of business and labour – increased the costs of restructuring and delayed its full materialization.

the level of effective protection provided to export activities should be similar to that given to import substitution activities. The second is that in order for exports to expand and diversify rapidly and steadily, export firms must be able to purchase capital goods and inputs at prices

similar to their international levels. A simple way to meet this last condition is to lift all restrictions on imports and eliminate tariffs. However, as is demonstrated by the experiences of some of the newly industrialized Asian countries, this requirement can also be met by

Box IV.9

INDUSTRIAL RESTRUCTURING AND OPENING IN BRAZIL

The economic recession experienced by Brazil in the 1980s gave rise to an interesting debate about the kind of development strategy it should adopt in order to keep growing and modernizing. From 1965 to 1980, the economy grew at an annual average rate of 8.4%. In the period 1980-1988, the average growth rate was 2.4% annually. In government circles, the thinking is that the country should be entering a more advanced stage in the industrialization process, where the emphasis should be placed on strengthening the competitiveness of the existing production sector, selective introduction of advanced technologies to create new comparative advantages, adaptation to changing conditions in international markets and harmonization of industrial policy with the social and political modernization of the country.

Appropriate tools are needed to achieve these objectives. Past experience indicates that trade policy has been one instrument which has had a crucial impact on the pattern of Brazilian industrialization. Up until 1967, import substitution of manufactures was promoted by means of tariffs and quotas. Since that time, industrial exports have been encouraged via a number of subsidies, such as tax exemptions, special treatment of imports of inputs and preferential credits. From 1975 onwards, severe exchange market disturbances gave rise to

renewed protectionism - as reflected in higher tariffs and greater administrative restrictions on imports - while fiscal imbalances and pressures from trading partners affected subsidies on sales abroad. Recently, in 1987, trade policy began to be reformulated, a process which involved significant modifications in relation to a number of tariff barriers; these included the easing of restrictions on the external financing of imported capital goods, the lowering of the number of prohibited import items and more flexible administration of the annual import schedules submitted by the enterprises involved.

Moreover, some basic changes were made in the principles underlying tariff policy when the machinery established by the Subsidies Code and the Customs Valuation Code, signed under the General Agreement on Tariffs and Trade in 1979, began to be effectively applied.

In 1988, in the context of its new industrial policy, the Government put into effect a trade reform which reduced tariffs, eliminated certain additional duties on imports and removed some of the regulations for the special treatment of imports. In 1989, tax rates on imports of capital goods and inputs were again cut. As a result of these modifications, the present tariff structure is more uniform, with lower rates than those prevailing until 1988, as can be seen from the following figures:

	Structure until 1988	Structure as from 1989
Mean nominal rate	51	35
Median nominal rate	45	35
Extreme rates	0-106	0-85
Standard deviation	26.3	20.8

Despite this greater homogeneity, the actual level of protection remained high and widely spread. Estimates made on the basis of the tariff structure established by the 1988 reform indicate that the effective protection rates fluctuate

between 8.5% and 114.9% for specific sectors, with an average (weighted by imported value) of 46.6% and a standard deviation of 26.9%.

Various administrative and legal restrictions on imports also subsist, ranging from procedures for obtaining import licenses to the constraints imposed by Act 7232 of 1984, known as the Information Act.

With regard to exports, the basic feature of the recent period (since 1984) has been the sharp reduction in the subsidy component by means of a preferential credit to exports and the elimination of the bonus credit, thereby maintaining a diversified (and reasonably unchanged) structure of incentives, which include tax exemption, credit lines to finance pre- and post-shipping expenses, and sectoral incentives for national or foreign export enterprises. Moreover, with some periods of exception, the exchange policy consisting of daily mini-adjustments was retained.

Two strategies have basically been proposed to strengthen trade reform. The first suggests that special treatment for imports, with some exceptions, should be eliminated; non-tariff barriers should be removed and tariffs should gradually be reduced to promote increased efficiency in response to external competition. An impersonal system based exclusively on a rational set of tariff rules would thus be achieved.

The second proposal is similar to the first, in that it also calls for a decreasing level of protection and recognizes that tariffs should be

the main instrument for that purpose. However, it assigns an important role to a selective system of non-tariff arrangements explicitly aimed at promoting competitiveness and making it possible to deal with the various kinds of unfair competition being faced by Brazil and other countries in international markets, in the form of progressive tariffs in the developed countries, dumping and other measures of this sort. An essential part of this approach is that competitiveness is "a game of attack and defence", in which national economic systems have a role to play.

In the last analysis, the two solutions are complementary. The first stresses the benefits that may result from a greater degree of exposure to foreign competition and a depersonalization of the trade system, in terms of modernizing the production sector and making it more competitive. The second recalls that the objective is not openness itself, but rather competitiveness, and that a large country such as Brazil cannot stop using trade policy instruments while other countries go on using them in global economic competition. For Brazil, the challenge thus consists of striking a fair balance between openness, tariff rationality, complementary actions to promote competitiveness and an array of instruments for strengthening the relative position of the production system in the world economy.

using different combinations of tariffs in conjunction with other instruments to neutralize the tariffs' adverse effect on the competitiveness of export sectors.

Nevertheless, in view of the high level, widely differing types and complexity of the tariffs and quantitative restrictions which still characterize the system of protection prevailing in a considerable number of the countries in the region, on the one hand, and considering, on the other, the limited administrative capacity of the public sector and the functions which the State must necessarily perform in other spheres of economic and social policy, it seems quite evident that the countries' efforts to meet these two conditions should initially be based largely on the elimination or lowering of quantitative restrictions on imports and a reduction in the level, variety and complexity of tariff barriers.

As is true of all processes of change, opening up an economy to trade involves both costs and benefits. However, the nature of the former

differs in important ways from the latter. Whereas the costs of this process tend to arise in the short term and to affect – sometimes radically – certain specific activities, its benefits take longer to become apparent and may be received by much larger groups and sectors. The more imperfect and rigid the factors markets are and the more abruptly the liberalization of trade is carried out, the greater this difference tends to be. Under such circumstances, one relatively immediate consequence of the opening up of the economy will be a drop in production and employment and the creation of idle capacity in what were previously heavily-protected activities. However, due to the specificity of fixed capital and the relatively immobility of the labour force in the short term, it is unlikely that the material and human resources which these activities will either cease to use or will be underutilizing can be rapidly absorbed by the export sectors which have become more profitable as a result of the liberalization of trade. Thus, the costs of opening up the economy will be evident and will

arouse resistance on the part of the groups called upon to pay those costs, but the benefits of this process in terms of a better allocation of resources and more efficient production will take longer to become apparent and will therefore not elicit immediate support for the liberalization process. Although it is true that this process will theoretically generate immediate benefits for consumers (mainly by way of lower prices for imported goods), in practice this benefit may be temporarily neutralized if sufficient competition does not exist in the country's import trade.

Hence the advisability of opening up an economy gradually. Although a rapid liberalization of trade has the advantages of ensuring the policy's credibility and, above all, of preventing the interest groups which could halt the process from growing stronger, if this process is carried out gradually the loss of these advantages will be more than offset, in most cases, by its much lower costs in terms of unemployment or underemployment of the labour force and underutilization or even dismantlement of the physical capital of formerly more heavily protected activities. In order to avoid these costs and obtain the medium-term benefits of the liberalization of trade, however, the process must not only be gradual, but the policies associated with it must have credibility. These policies should send clear economic signals to economic agents which dispel their uncertainty and prevent them from delaying decisions to invest in sectors enjoying comparative advantages. In addition, in order to expedite this latter process – which constitutes one of the basic requirements for increasing an economy's genuine competitiveness – it is essential for these sectors to have adequate financing and for measures to be adopted to facilitate the mobility and re-training of manpower and the process of industrial reconversion.

In order to ensure the continuity of the liberalization process, it is also necessary for macroeconomic balances to be maintained with the aid of a suitable combination of commercial and exchange policies. In fact, in most of the cases where this process has been accompanied by sharp drops in activity and employment levels, a much smaller share of the responsibility for these decreases can be attributed to the effect of lower tariffs than to a

rapid overvaluation of the currency brought on by the freezing of the exchange rate or the failure to raise it enough within a context of inflation. On the other hand, as will be explained more fully later on, if real increases in the exchange rate are made at the same time that tariffs are lowered and quantitative restrictions are eliminated, it then becomes possible both to sharply reduce the costs which the opening up of the economy entails for the activities that have to compete with imports and to receive the benefits associated with an expansion of exports more rapidly.

2. Linkages within the production system

While the specific features of each individual country vary considerably, the productive structure of the region is marked by an insufficient linkage between the industrial sector, on the one hand, and the economic activities based on the use of natural resources and services, on the other – largely as a consequence of the emphasis placed on the internal market and the insufficient importance assigned to the technological variable in the manufacturing sector. The criterion of genuine competitiveness which should guide the region's development process in the 1990s and the systemic nature of such competitiveness point the way to the second major specific objective: increasing the linkages within the production system. The strengthening of such links is a means of promoting the dissemination of technical progress, not only within the industrial sector, but also in natural resource-based activities and in services, which is an irreplaceable mechanism for making genuine competitiveness viable.

a) Tradeables and non-tradeables

During the phase of substitutive industrialization, goods which had, in the international context, belonged to the category of tradeables turned out to be non-tradeable in practice due to their poor quality or high production costs. The chronic external constraints of the 1980s, however, have prompted the countries to place a high priority on the production of tradeable goods. Nonetheless, if, as a result of a unilateral emphasis on these types of products, the countries neglect the direct and indirect linkages between their sustained growth and the production of various types of non-tradeable

Box IV.10

BRAZIL: COMPUTERIZATION OF BANKING ACTIVITIES

Bank automation activities were launched in Brazil with the support of the financial establishments and were closely linked with the latter's needs. To begin with, this connection made possible considerable growth by the companies manufacturing the data processing equipment, but subsequently it has led to specialization trends which could hinder those companies' incorporation into the international market.

Since 1977, the Government of Brazil has reserved the market for small computers and their peripheral equipment for Brazilian companies, with a view to stimulating an industry which is crucial for the country's economic development and lowering the balance-of-payments deficit. A series of subsequent modifications expanded the proportion of the market reserved for Brazilian companies to cover microcomputers, integrated digital circuits, superminis and industrial automation equipment, while foreign-owned companies were forced to increase the proportion of Brazilian components in their products and to maintain positive balances for the country in their export transactions.

At the same time, the Brazilian banks tried to rationalize their operations and attract high-income clients. Such competition, coupled with the policy of reserved markets, laid the foundations for the "golden age" of the Brazilian computer industry, especially in the field of bank automation. Various enterprises were set up, most of them closely linked with the banking sector.

In 1987, the Brazilian microcomputer market ranked sixth in the world behind the United States of America, Japan, the Federal Republic of Germany, the United Kingdom and France. In that year, Brazilian enterprises protected by the reserved market sold products worth US\$1.9 billion, equivalent to 56.8% of the national informatics market, while foreign firms accounted for the rest.

In 1985, the main Brazilian enterprises involved in bank automation were SID, Itaútec, Digirede, Elebra and Cobra. These companies accounted respectively for 37%, 14%, 8% and 6% of the Brazilian bank automation market. In 1987, these same firms were also the largest national informatics enterprises.

The development of the Brazilian bank automation industry made possible the establishment of some of the main informatics firms, because as a result of the profits obtained in that branch they were subsequently able to expand into other areas. Thanks to the development of that industry, the companies were able to acquire technological capacity in the fields of system integration, data communication and network systems. The relatively high demand, the concentration of the market and the quality requirements involved in bank automation helped to develop a considerable production capacity.

However, some disturbing trends have appeared in the informatics industry: the concentration of the bank automation market and the fact that the users had the technological capacity to specify their requirements did nothing to stimulate the companies to develop marketing activities. The structure of the informatics market encouraged the development of terminals and support equipment (data input and communication), but it hampered the development of data processing hardware and software and basic - more complex and special - application programmes, while the quasi-oligopolistic structure of the industry, its high prices and a measure of technological stagnation led to policies of verticalization.

Furthermore, although the policy of reserved markets stimulated the development of the bank automation industry, it also sparked off a trend towards diversification which, together with verticalization, runs counter to the international tendency towards flexible specialization and technological co-operation. The rigidity of the current policies has hampered the development of specialization and co-operation both at the national and international levels.

The financial sector, which has been so important in the development of the bank automation branch, is today in favour of joint technological ventures which would make the banks more competitive internationally. The bank automation industry itself would benefit from such joint ventures, since it could increase its technological capacity and probably its exports as a result of access to more sophisticated marketing and distribution networks.

goods and services, then the steady expansion of exports or the development of an efficient import substitution process may ultimately be frustrated (see box IV.10).

In effect, raising the productivity of an exportable good to a level similar to or higher than that achieved by competitors may not be enough to ensure competitiveness if the components of its internal marketing logistics have not been as carefully attended to as the production phase as such. This is because such aspects as the expansion of infrastructure and the management of means of transport and communications and of bulking systems, as well as the organization of administrative procedures influencing the amount of time required to move goods from the production site to their port of shipment or delivery, are just as important in maintaining competitiveness as the efficiency of the production stage is. For example, although the per-hectare yields of maize and soya crops in those areas of Brazil where modern cultivation techniques are used are higher than the yields of growers in the United States, a few years ago it cost eight times as much to transport a given volume of soya from the field to its port of shipment than it did in the United States. The coverage and quality of education is another example of a "non-tradeable" which plays a significant role in the expansion of the production of tradeable products since, as noted earlier, competitiveness increasingly depends on the intellectual value that is added to goods which are to be traded internationally.

For these reasons, it is evident that the substantial drop in investment in infrastructure that has occurred in recent years – which has been so great that it has even affected the maintenance of existing facilities – as well as the decrease in spending on education and research prompted by budgetary constraints, will limit the competitiveness of many of the region's economies.

Another integral component of the link between the production of tradeable and non-tradeable goods which is of mounting importance in terms of the achievement of genuine competitiveness is the production subsystem formed by telecommunications, computer sciences and electronic information services. The industrialized countries have been

transferring more and more of this sector of activity from the non-tradeable to the tradeable sphere by means of the privatization of public services and the externalization of activities formerly carried out on an in-house basis by large firms.

b) *Industry/agriculture*

One of the "virtuous circles" to be observed in most of the cases in which production patterns have been changed successfully is the formation of closer links between the development of the agricultural sector and the development of industry. These relationships are particularly effective in promoting dynamic growth when they arise within a framework of relatively similar agrarian structures or when they contribute to their creation. In many cases, the dynamic positions in international trade won by agriculturally-based manufactures and by inputs and means of production for agriculture have stemmed from the initial stimulus to the industrial sector provided by the supply of, in the former case, and the demand for, in the latter case, these goods from the agricultural sector.

In contrast, when agricultural production is sustained by an agricultural export enclave and a great mass of small farmers who produce for the domestic market, and when industry develops under the wing of an indiscriminate form of protectionism and lacks a systematic linkage with the farm sector, then the potential of the links between industry and agriculture to boost growth is not realized, the structural heterogeneity of the agricultural sector is heightened, and the gap between urban and rural areas widens.

In Latin America and the Caribbean, the continued inflow (or successive inflows) of rents from the exploitation of natural resources within the context of a highly unequal distribution of wealth and income was one of the factors which helped to dim the awareness of the need for intersectoral linkages. Moreover, this inflow made it possible to finance the *rents of protection*, which contributed to the formation of an industrial sector made up of firms that, whether or not they had the potential to be competitive, did not, in fact, have to stand up to external competition.

This pattern of industrialization, in conjunction with the rapid urbanization which

accompanied it, also exerted pressure on public policies, which consequently took on a strong urban-industrial bias. This was manifested in the transfer of rents, in food pricing policies and in policies on investment in economic and social infrastructure which contributed to the neglect of rural interests.

Among the factors which make it necessary to re-examine the policies that determine the extent and character of the linkages among natural resource-based activities and, in particular, between agriculture and the manufacturing sector, two fundamental problems should be mentioned: the effects of the external debt crisis, and the decline in rents from natural resources caused by the drop in the relative prices of commodities, by the depletion of non-renewable resources or the higher costs of exploiting them, and by the unsustainable burden of subsidizing inefficient sectors that are incapable of becoming competitive.

Re-thinking these sectoral policies involves abandoning the segmentation which has been one of their characteristics and emphasizing measures designed to take advantage of the possibilities for reciprocal reinforcement inherent in forward and backward linkages between agriculture and industry and between both of these sectors and services (see box IV.11).

When public policy and the socio-institutional environment are such as to generate the proper conditions, the agro-industrial cluster (or in its absence, the agro-commercial nucleus) can become the link in the chain of production which is most able to induce technological improvements in the sources of supply by providing inputs or technical assistance to ensure the quality and regularity of raw material flows (see box IV.12).

c) *Exports/basic needs*

External insertion or self-sufficiency in terms of food supplies are often presented as being alternative strategic options. It would therefore be appropriate to discuss the validity of some of the arguments used by those who contend that these two objectives are mutually exclusive.

A number of valid arguments as to the need to have *some degree of self-sufficiency* as regards the basic components of the diets of the

countries' populations (especially at the regional or subregional level) focus on the following circumstances: i) the oligopolistic character and lack of transparency of the way in which the world grain market functions; ii) the relatively weak position of the countries of the region in a market dominated, on the demand side, by large buyers such as Japan and the Soviet Union; iii) the pronounced price instability which has come to be a trait of this market since the first half of the 1970s; iv) the pressure for changes in the current policies of the main exporters, which may, on the medium term, lead to a deterioration in the conditions under which deficit countries have access to food supplies; and v) the disincentive to domestic production represented by imports at subsidized prices and the fact that they turn consumption patterns towards imported products which cannot be produced domestically and which displace traditional indigenous foods.

Advocates of this basic-needs option base their position on the consideration that this alternative is more in keeping with the objectives of raising employment and achieving greater equity, especially in economies having very low per capita incomes, a great deal of poverty, and high levels of unemployment or underemployment.

Since growth and social equity are the pivotal objectives of the transformation of production patterns, it is necessary to analyse how valid the foundations of this argument are.

Some of the reasons advanced for giving priority to the option of producing staple foods are: i) that these two alternatives would probably compete for scarce resources (land, irrigation water, credit, technical assistance, etc.); ii) that a significant proportion of food production is presumably accounted for by small-scale producers who, in their turn, are the group which suffers the most from rural poverty; and iii) that in those cases where small-scale producers have been incorporated into agro-export activities, they have not always managed to increase their incomes or, when they have, their nutritional levels appear to have deteriorated as a consequence of the replacement of food crops destined for consumption by agro-export products.

Box IV.11

ORANGE JUICE PRODUCTION IN BRAZIL

Brazil is the biggest producer and exporter of frozen concentrated orange juice in the world. It achieved this position in less than two decades, during which international trade in this product gained increasing importance in the world commodities market. In the peak years, the value of international frozen orange juice transactions rose to some US\$2.3 billion, and Brazilian producers accounted for approximately US\$1.4 billion of this amount. Export expansion strengthened orange processing as an industrial activity and stimulated a sharp increase in the production of this citrus fruit, which rose from 8 359 million units in 1960 to 73 570 million in 1987, while the cultivated surface rose from 112 200 to 725 600 hectares. In 1960, all production was for local consumption; today, more than two thirds of the total volume produced are exported. In 1988, 71% of exports were concentrated in four enterprises, two of which belong to foreign groups, while the other two are Brazilian. One of the Brazilian enterprises was owned by an orange-producers' co-operative. The remaining 29% of exports were scattered among many enterprises.

In 1962, a year in which Brazil exported its first shipments of frozen concentrated orange juice, it already had a great deal of experience in the production and export of oranges, an activity in which it was able to take advantage of its excellent natural resources and abundant labour. That year also saw the first efforts to produce for European markets (beginning with Great Britain), which coincided with a fortuitous event: the heavy frost in Florida which severely damaged citrus production. Since Florida is one of the biggest producers of oranges in the United States, that country was forced to seek other sources of supply. This circumstance led to the installation in Brazil of frozen concentrated juice plants between 1963 and 1968, basically financed by foreign investors, and then to the prompt incorporation of modern technology, which enabled the infant industry to gain strength

rapidly and take advantage of the niche which had opened up as a result of the frosts that affected Florida's production in 1962, 1963 and 1967, in addition to growing European demand.

From 1962 to 1973, certain adjustments were made in orange production to meet new demands; special juice-producing varieties were planted, and the practice of using discarded fruit was abandoned. As a result, the quality of the product improved substantially. The Government intervened in the sector in 1974 because of the serious recession caused by the rise in oil prices. The drop in European demand forced one large enterprise into bankruptcy, prompted a price war among the other major enterprises and cut the price paid to orange suppliers, who then refused to sell their products. The Government took various steps, such as fixing the minimum export price and a price for oranges on the tree, reactivating the plants of the bankrupted enterprise and providing soft credits to citrus growers.

The period 1977-1985 was characterized by a reorganization of enterprises and conflicts between processing enterprises and growers, in which the Government acted as arbitrator. An important event in those years was the innovation in transport systems represented by the introduction of bulk transport of concentrated juice, making it possible to lower costs, improve quality and better manage the supply.

Generally speaking, the 1980s were characterized by the development of important technological innovations in the various enterprises. Greater emphasis was placed on obtaining by-products such as orange alcohol. Adjustments were made in the use of inputs, such as the replacement of fuel oil by bagasse. Harvest-management systems and production processes were further improved through the use of mathematical and statistical models. Laboratories were also set up for the development of new products and processes.

However, when the validity of these arguments is examined in the light of actual experiences, it may be seen that, with few exceptions, agro-export activities involve both a greater degree of labour-intensiveness per hectare (from three to more than six times the labour required for basic grain crops) and a larger number of jobs in the intermediate

activities engaged in between the stages of primary production and the final sale of the product. Moreover, whereas technical progress in the production of various types of basic foods tends to lead to manpower savings and greater economies of scale, a considerable proportion of agro-exports are product lines (fruits and vegetables, flowers, "indigenous" products,

Box IV.12

**THE FORMING OF AN AGRO-INDUSTRIAL EXPORT COMPLEX:
THE CASE OF CONAPROLE IN URUGUAY**

The dairy industry in Uruguay initiated a growth phase in 1975 which led to the forming of an agro-industrial dairy export complex. During this process, technological advances were incorporated, sectors were linked together and a preponderant role was played by small and medium-scale producers under the leadership of a large national and quasi-public co-operative enterprise, the National Dairy Co-operative (CONAPROLE), which was established in 1936 and now has more than 5 000 member producers.

From 1970 to 1983, dairy production rose at an annual average rate of 4%, which made it one of the most dynamic sectors in the country. Although this growth began to slow down in 1981, it did not show the recessive tendencies that affected the nation's industry in general. CONAPROLE exports, although insignificant in 1974, rose rapidly to reach a value of US\$40 million in 1989, making this enterprise the biggest dairy exporter in Latin America.

Modernization and technological progress have led to higher productivity and better quality, in both the primary production and industrial phases. With the mechanization and technification of primary production, the average annual production per cow rose from 1 592 kilos in 1979 to 1 805 kilos in 1989, and the quality and cleanliness of the milk improved. Techniques developed in New Zealand for rotating multi-year artificial pastures were disseminated; periodic visits from agricultural consultants and veterinarians were established; specialized short courses were organized; refrigerated tank networks were expanded and bonuses and facilities for obtaining loans and purchasing inputs were granted. The industrial phase entailed product diversification and innovation,

and high technology continued to be incorporated.

This modernizing process put pressure on small-scale producers, since the costs required greater economies of production. CONAPROLE has tried to cut the production costs of small-scale producers and enhance their access to new technologies. Notable among the many efforts in this direction is the "Plan Esperanza", which currently involves more than 800 co-operatives and provides technical assistance and tilling equipment to groups of the smallest producers. The latter make installment payments for the use of the equipment, which is priced according to the number of hectares being farmed.

Pricing policy has been a major factor in the industry's capacity for accumulation and growth. A scale of differentiated prices has been applied, originally intended to stimulate the supply of milk in low-producing stations. Thus, a controlled market segment with high prices has co-existed with a liberalized segment with lower prices. The ability of CONAPROLE to influence buyer and seller prices has stabilized the profit margin, which has made it possible to withstand the ups and downs of macroeconomic policy. At the same time, the norms under which it operates, which explicitly combine short-term commercial objectives with long-term social objectives, have enabled it to demonstrate its capacity for linkage.

The forming of this innovative and competitive agro-industrial complex combines the virtues of technological modernization with those of linkage among sectors and producers of varying sizes, competitiveness and rates of growth.

aromatic and medicinal herbs) in which significant economies of scale do not exist at the production level and in which much of the value added comes from labour that is in general relatively more highly skilled.

Furthermore, the levels of training, productivity and income of the labour force employed or engaged in agro-export activities are, on average, higher than they are in the production of grains or other staple foods. In addition, although competition for what are

almost always limited resources is a reality, it has been reduced and even overcome in many cases by means of the spatial redistribution of production and the incorporation of technical progress into the basic goods displaced by the production of exportable goods. Indeed, variations in prices and rates of return have been a more important cause of ups and downs in the production of staple foods or exportable agricultural products than competition for scarce resources has been.

The demands created by agro-export activities in terms of the quality and appearance of products and the regularity of their supply call for technological and organizational improvements which, both because of their demonstration effect and because of the learning process they entail, are usually carried over to other products. In fact, although it is a difficult and gradual process, fulfilling the conditions required to achieve a dynamic position in the external market also tends to create conditions conducive to an increase in the productivity and competitiveness of the production system as a whole.

3. The interaction of public and private agents

If changes are to be made in the region's production patterns in the 1990s, the public sector will need a basis for action which permits it to combine macroeconomic management with sectoral policies and medium- and long-term strategies. The experiences of both the industrialized countries and the semi-industrialized nations whose development efforts have been successful indicate that the maintenance of macroeconomic balances must be coupled with a wide range of specific measures and tools targeted at given sectors and even at leading producers of certain goods and services. These include steps aimed at modifying the sectoral pattern of investment, introducing major innovations in the area of institutional management, and supporting the formation of synergies or systemic collaboration among different sectors, entrepreneurial agents and production, technological, commercial and financial activities.

The application of macroeconomic and sectoral policies by the government requires a great deal of interaction with the various sectoral actors involved (entrepreneurs, trade unions and technical personnel) and demands the use of a broad range of information – which is not always available and whose quality may vary markedly. The absorption and dissemination of technical change is a subject that plays a major role in this respect, which is why the existing theoretical framework is so fragmentary. The formulation and implementation of this latter type of policy also entails new sorts of institutional requirements, inasmuch as the impact of such policies is

confined to a defined area and their full effect takes quite some time to become evident. This poses problems of co-ordination among the various sectoral policies and between them and the main macroeconomic policies.

During periods of growth based on a consolidated technological pattern in socially articulated economies, problems of compatibility among macroeconomic, sectoral and microeconomic policies are significantly reduced. During periods of transition between different production patterns involving a large number of major technological changes, however, the problem of how to ensure that these policies will be compatible and internally consistent becomes much more complex. This is especially true if the public institutions called upon to undertake initiatives and enlist the efforts of economic agents are undergoing a period of serious economic restrictions at the same time that the legitimacy of their functions is being generally called into question.

Under such circumstances – circumstances which have been the prevailing ones in the region during the 1980s – the temptation to focus attention on macroeconomic policies is an understandable one. Nonetheless, the 1990s present the countries with the important task of moving beyond the experiences of the phase of substitutive industrialization (when macroeconomic equilibria were not seen as being necessary for development), as well as beyond the opposite view, which was widely held in the 1980s, according to which such balances tended to be regarded as being sufficient in and of themselves to permit development.

The type of State required to help move an economy towards genuine competitiveness and to foster the formation of production linkages differs in significant ways both from the type which promoted the previous form of industrialization and from the type of State which undertook the task of making it economically feasible to service the external debt during the 1980s. This is, in fact, one of the most controversial topics in today's debate on development, which has at times become polarized into mutually exclusive positions. At one extreme, there are those who cite the advantages of private agents (such as their ability to adapt to changing market conditions and to technological innovation) and the more

efficient allocation of resources that would be generated by a market system based on private enterprise, as well as emphasizing some of the shortcomings associated with public agents, such as a cumbersome bureaucracy, clientage, inefficiency and an unproductive use of resources. At the other extreme, there are those who stress the strong points of public agents (putting social benefits before private interests, their ability to see the whole picture, the taking of a long-term view) and underscore the weak points of the private sector, such as its relative lack of competitiveness and its tendency towards speculative investment.

This Manichaeian construct, although it does serve to point out some of the real strengths and weaknesses of the two types of agents, leads to proposals devoid of substantive content, such as those reflected in the expressions "more private sector" and "more public sector", and lacks insight into the complexity of the issues and into what the relationships between the two sectors have been in the course of the region's economic development. It is even less satisfactory in terms of its formulation of the complex, dynamic and changing interaction between the public and private sectors. It is obvious that State action has an important role to play in bringing about the changes in production patterns in conjunction with social equity which are being proposed for the 1990s. It is also obvious that its style of action will have to be different from what it has been before, if only because changing the region's production patterns while promoting greater equity requires that the State concentrate on the priorities of the present rather than on solving the cumulative problems inherited from the past.

It is difficult, however, to devise an *ex ante* blueprint of the proper role of the State or of private agents, since this is an issue which cannot be dealt with in the abstract. Public actions take shape within a specific institutional, social and political framework in which the State and the rest of the agents in the society, and even some external actors, relate to and influence one another. Thus, the strengthening of pluralist, participatory political systems in the region will heavily influence both the style and the content of public action in the future.

In examining the debate concerning the responsibilities of the State, three different

dimensions should be identified. Firstly, the State is a permanent manifestation of the national political community, which demands loyalty of its members, acts as the final arbiter in conflicts between classes and groups, and has a monopoly on the legitimate use of force. Ideally, in pluralist democracies it is the majority which decides what the State should or should not do, while upholding principles that protect the rights of the minority. Recent processes of democratization have strengthened the legitimacy of the State, and the defeats of populism and authoritarianism have aroused some degree of opposition. In this respect, it should be noted that the prevailing belief among the population is that providing protection against injustice and contributing to the solution of economic problems are the obligation of the State.

At the same time, the State, as a manifestation of the nation, is being questioned on two opposite fronts. At the domestic level, the alteration of the social structure, both before and during the crisis, as well as changing expectations and the appearance of new opportunities for progress by some, have caused relations between the State and society to become more contradictory and conflictive – so much so, in fact, that in some cases social cohesiveness has been put to the test. At the external level, the debt crisis and trends in international trade have increased the Latin American and Caribbean States' exposure to changes and fluctuations in the world economic order.

Secondly, the State is also the sum of institutions and bureaucratic structures which have their own forces of inertia and momentum. Until the early 1980s, the institutions of the public sector in most of the countries were gradually becoming "modernized", were taking on increasing responsibilities and had more and more highly qualified professional staff. It became apparent, however, that parts of the State apparatus – the supposed arbiter of national policy – were developing their own techniques of self-defense and expansion and were forming closer relations with private-sector interest groups or transnational actors (governments, intergovernmental organizations, transnational corporations, professional groups in the corresponding field).

In addition, with the advent of the crisis of the 1980s, governments were confronted with severe financial restrictions. Among other phenomena, this prompted a number of constructive efforts to reduce costs, become more flexible, become more sensitive to central directives and to democratic controls, and to be more selective in addressing various issues. As part of this effort to adapt to changing circumstances, large-scale campaigns for the de-bureaucratization and privatization of public services and a process of deregulation were initiated in the region. All of this creates new dilemmas for the region today, and especially for democratic governments, which can neither make drastic cuts in public employment (given the precarious position of the middle class) nor afford to maintain public services at acceptable levels. When faced with these dilemmas, it is difficult to strike a proper balance between needs and resources, and in some cases the result of the above-mentioned campaigns has been an emphasis on the reduction of costs to the detriment, in particular, of the neediest and least influential sectors, which provide and, above all, make use of social services.

Thirdly, it is important to take into account that facet of the governmental or political system which is an expression of the dominant forces in society or of a compromise among various forces which hope to make the ideal attributes of the State a reality and to manage public-sector institutions and the bureaucracy in such a way as to serve that end. Democratic leaderships, in particular, must constantly strive

to reconcile contradictory principles of action: to have and inspire confidence in the validity of their policies while not turning a deaf ear to criticism; to seek a coherent body of policies while being prepared to bend in order to gain broader political support; to implement urgent, controversial measures while at the same time respecting the rules of the game, which allow their adversaries to frustrate or distort those measures. Just as the political leadership accepts the legitimate implications of a pluralist democratic system and the lessons of the recent past, it must also accept the fact that policies and strategies may be subject to change in accordance with the will of the majority of the population.

In sum, there appears to be a need to "de-ideologize" the issue of State intervention in the development process. Clearly, the State must play a role both in promoting a debate among the various strata of society aimed at constructing a basic platform of agreements that will facilitate the development process and in assuming the responsibilities which arise out of that debate, especially those which foster changes in production patterns and greater social equity. The content and scope of that role, however, should be the outcome of a dynamic interaction between public and private agents, and it will necessarily be subject to the uncertainty which is an intrinsic part of any process of concerted effort and consultation. Hence, the third specific objective of the proposed process of changes in production patterns could well consist of helping to bring about an effective form of interaction between public and private agents.

V. SOME BASIC POLICY LINES

Reference is made below to some of the policies which can be used to support the instrumental objectives defined earlier in this study, including an improved insertion into the world economy, the establishment of production linkages and creative interaction between public and private agents (see synoptic table). For purposes of presentation, the policies have been grouped in accordance with each of these objectives. Taken together, the three objectives make up the strategic criterion of the proposed changes in production patterns, which is *the strengthening of genuine competitiveness*.

The policies briefly explored here support both the three instrumental objectives referred to and also, when taken together, the strategic criterion expressed. They must be designed and implemented in the institutional context defined as "strategic consensus-building", which refers to the institutional support of the proposal for changing production patterns with equity.

The term "strategic consensus-building" refers to a number of long-term agreements,

both explicit and implicit, between the State and the principal political and social actors in respect of the instrumental objectives and the sets of policies and institutional innovations needed to achieve those objectives. We are dealing here with a means of bestowing legitimacy on actions and mechanisms which on the one hand promote behaviour in keeping with shared purposes and, on the other, impede the dynamics of group interests which, if unleashed, could jeopardize the realization of the collectively held purposes.

The capacity of governments to agree on long-term targets and instrumental objectives as well as on usable means for achieving those targets and objectives is directly related to the degree of pluralist participation, the suitability of the policies practised and the efficiency with which they are implemented. Strategic consensus-building is put to the test every day on the basis of its effects and the degree to which it is accepted by its different protagonists. These considerations are especially important in the region because of the imperious need to strengthen plural, participative political systems and to bestow legitimacy upon them.

A. SPECIFIC NATIONAL CHARACTERISTICS

Each of the countries of Latin America and the Caribbean obviously has its own specific economic, social, cultural, historical, geographical and political traits. Some consensus is, however, perceivable with regard to the need to undertake changes in production patterns. It may also be affirmed that policies designed to achieve growth and equity vary little from one national context to another. In

addition, in all national contexts technical progress plays a strategic role in the achievement of sustainable growth, genuine competitiveness and greater equity; what varies in different countries is the way in which instruments are used, the concrete design of institutions and the priority and sequence of policy changes.

BASIC POLICIES: SIMPLIFIED DIAGRAM

<i>Orthodox approach in the 1950s and 1960s</i>	<i>Orthodox approach in the 1980s</i>	<i>Changes in production patterns in the 1990s</i>
1. <i>Policies used to support incorporation in the international economy</i>		
a) <i>Commercial and exchange rate policy</i>		
- A high degree of permanent protection through high and dispersed tariffs and quantitative restrictions.	Trade and financial liberalization, and simultaneous rapid deregulation.	Tendency towards a low level of protection, low dispersion and lack of quantitative restrictions. Temporary protection provided on a selective basis for new sectors contributing to technical progress. Use of compensatory mechanisms in approved cases.
- Anti-export bias partially redressed by export promotion schemes.	Tendential neutrality between domestic and external market. Generation of trade surplus in the short term.	Application of neutrality criterion in tariffs and exchange rate policy, combined. Integral system for promotion of exports of manufactures.
- Multiple exchange rates tending to overvaluation, especially in respect of mass consumer goods.	Exchange rate determined by market.	High and stable real exchange rate to promote competitiveness.
- Regional integration to expand domestic market.	Free international trade.	Regional integration designed to strengthen the capacity to compete in regional and international markets. (Research and development, marketing, communications.)
b) <i>Technological policy</i>		
- Various instruments to support technological activity, with little effect because of small demand on the part of enterprises and institutions in the process of consolidation.	Reduction of fiscal resources for technology and little institutional support.	Set of instruments covering a broad range of entrepreneurial requirements, ranging from efforts to increase awareness to the marketing phase. Decisive strengthening of bodies working in this field. Availability of resources in line with the growing demand associated with the requirements arising out of incorporation into the international economy.
c) <i>Manpower training</i>		
- Laying of institutional bases for initiating massive manpower training process and centralized, relatively rigid schemes, removed from entrepreneurial activity.	Weakening of public training institutions. Recommendations that this task be handled in the entrepreneurial sector.	Priority for these activities, with regard both to the absorption and dissemination of technical change and the promotion of equity. Institutional pluralism, differentiated programmes for different groups of workers, national training scheme.
d) <i>Creation of enterprises</i>		
- Generation of large public and private enterprises operating in captive markets with oligopolistic structures. Insufficient development of small and medium-sized industry.	Policy furthering growing domestic and external competition.	Provision of systematic support for the creation of enterprises and for entrepreneurs: greater respect for the rôle of the entrepreneur, identification of groups with entrepreneurial potential, support for the formulation and financing of projects, reduction of bureaucracy, establishment of technological infrastructure and "incubators" for new enterprises. Support for small and medium-sized enterprises.

2. Policies to strengthen production links

a) Industry: geared to the domestic market in the following sequence: consumption of non-durables, more generalized use, consumption of durables and consumption of capital goods. In the larger countries, progress made towards the final stages. Leading role taken by transnationals in sectors showing the greatest growth and technological content and by public enterprises in the most capital-intensive fields.	Generalized doubts concerning efficiency. Increased exports of manufactures related to drop in domestic markets.	Neutrality criteria applied in wide range of sectors in combination with criteria of market stimulation, selectivity based on indivisibility and intersectoral co-ordination.
b) Agriculture: policy design within narrow sectoral framework with very little regional differentiation and on the basis of types of producer, with preeminence of a casuistic approach in line with the demands of producer organizations capable of exerting greatest pressure.	Transfer to the private sector of public activities in the domestic and external supply and marketing of basic commodities. Emphasis on supervision and information activities designed to make markets more transparent. Occasional recourse to anti-dumping measures.	Systematic approach which seeks to strengthen the links between agriculture, industry and services, on the basis of the capacity of agroindustry and agroindustry to induce technological progress in processes and products, using strategies which differ by region and by type of producer.
c) Natural resources: exploitation of resources perceived as unlimited.	Intensification of the use of resources for export. Use of market mechanisms to determine scope and technology of resource use ("correct prices").	Combination of market mechanisms with market regulations and intervention in such a way as to simultaneously ensure proper exploitation. Structuring of production networks including industries and services. Movement away from public participation in property to regulation, tapping of income and surveillance of the use of resources.
d) Infrastructure and services relating to products: expansion of the physical capacity to support industry supplying the domestic market and exports of natural resources.	Financial orientation; self-financing and charging users for the cost of infrastructure.	Support for changes in production patterns with emphasis initially on maintenance and on significant changes in management. Priority for the expansion of telecommunications and producer services. Quality of services given preference over new works.
e) Financial system: - Public development institutions (development banks); formulation and promotion of large projects, preferably public industrial projects geared to the domestic market. Specialized sectoral banking with no systemic approach.	Development institutions (development banks); financial agents transfer external credit to commercial banks which invest it in the production sector.	Change in role of banks and development funds in financial systems: must take responsibility for attracting medium- and long-term investments in the market to supplement resources provided by or channelled through the public sector. Priority is shifted to credit for small and medium-sized enterprises.
- Private financial system: a passive intermediary in the attraction of funds; preferential transfer of funds to large enterprises and financial groups. Absence of selectivity and viability criterion.	Generalized erosion of solvency of financial systems of the region, partly because of the recessive adjustment and changes in exchange rates and in the price system brought on by the external debt crisis and also, in part, by defects in the systems for regulating and supervising credit institutions, especially in countries where the financial sector has been liberalized.	Considerable domestic savings effort to finance larger investment made necessary by changes in production patterns and also to service the external debt during the 1990s. Savings requirements point to the need to expand all domestic sources of funds, including voluntary private savings, institutional savings and public savings.

3. *Policies to promote interaction between public and private agents*

a) *Regulation*

- Extensive, non-selective public regulation with a substantial gap between the range of objectives and the institutional capacity for evaluation.

Generalized liberalization and use of market to guide decisions of economic agents.

Specific definition of areas subject to public regulation and those in which the market mechanism prevails. Institutional excellency in areas of selective intervention. State responsibility for the surveillance of the results of market action. A degree of uncertainty concerning areas regulated because of consensus-building involved in pluralistic political systems.

b) *Public enterprises*

- Establishment of basic infrastructure. Higher priority given to public works than to the provision of services. Generalized subsidies.

Privatization, elimination of subsidies, restriction of investments.

Innovations in the management and financial reorganization of enterprises remaining in the public sector. Consistent personnel policies and remunerations. Transparency with regard to suppliers. Strengthening of technological synergies with the private sector.

c) *Small and medium-sized enterprises*

- Insufficient development in low-technology areas. Support institutions and policies with little operational content. Weak links with large enterprises.

Decline in the number of small and medium-sized enterprises. Further weakening of institutions engaged in sectoral development policies.

Distinction drawn between economic and social objectives of small and medium-sized enterprises and development of institutions and policies consistent with those objectives. Integration of policy on small and medium-sized enterprises with policies on changes in production patterns. Decentralization of support. Priority to dissemination of technology. Neutralization of weak spots of small and medium-sized enterprises in the areas of technology, financing and marketing.

d) *The social sector*

- With the exception of isolated countries and sectors, weak and insufficient presence of self-managed, labour- or peasant-owned co-operative enterprises and other co-operative enterprises. Centralized, declarative, and ineffective support policies.

Apparent informal expansion of the social sector under survival strategies to cope with the recession. Further reduction of the weak public support offered previously.

Explicit, decentralized policy to promote forms of social association for production purposes. Within these associations, support and promote the development of technical assistance, financial and training bodies.

The initial point of reference of a specific strategy for effecting changes in production patterns must be the existing structure of production. This may present problems of dynamism, competitiveness, linkages or equity.

In general, such problems exist in all countries but to different extents and with different shadings. In some countries, the economy may be relatively dynamic and competitive but may suffer from defective linkages and severe

distribution problems. In other countries problems relating to linkages or equity are perceived as being less immediate, whereas lack of dynamism is viewed as being of the utmost urgency. In the majority of countries, however, problems of dynamism, competitiveness, linkages and equity are closely interwoven. The specific objectives to be reached through changes in production patterns will differ in the short term depending on the relative seriousness of the immediate problems experienced in each national context.

The countries of the region also display great disparity as regards the absolute level of their product, its composition and distribution and its spatial concentration or dispersion, the characteristics of the human and natural resources found in them, the capital and technology available to them and the actual capacity of their public institutions to conceive of, design and execute development strategies and policies in specific fields. To this list of examples of structural differences may be added one of situational differences which affect the order in which objectives are considered and the design of instruments within a strategy for changing production patterns.

One of the structural differences which most affects the determination of the specific characteristics of changes in production patterns is the size of the economy concerned. From this angle, what is important is the size of the domestic market and the relative weight of the exportable supply in international markets. Thus, the fact that a country is relatively small affects the optimum scale of production for the domestic market and the viability of activities requiring a certain critical mass of human and financial resources. As measured by the size of their domestic market, the majority of the countries of the region should be regarded as small.

Certain special circumstances and characteristics must be taken into consideration in proposing changes in production patterns in small countries. Naturally, the process of industrialization, the development of the State apparatus, the infrastructure for production and the export base of small countries differs from those in medium-sized and large countries. Thus, for example, industrialization is a more recent phenomenon in small countries and in some of them has taken place basically

as a result of the impetus provided by subregional integration arrangements and has been confined to the first phase, i.e., the import-substitution phase. The absorption of technological change is generally weaker in them than in the larger countries of the region, and the institutions and infrastructure needed for development are not yet sufficiently mature. Finally, their exports are still largely made up of a small number of commodities.

In such circumstances, some explanations must be made in respect of certain factors of a general nature which affect the process of changing production patterns. These explanations are especially important in so far as they relate to technological policy and trade policy. It must also be noted that the specialization and regional integration concepts are especially important where small countries are concerned.

The technological policy of small countries inevitably comes up against the problem of the lack of a critical mass, especially in so far as human and financial resources are concerned. This means that their technological policy must necessarily put greater emphasis on the development of the transfer, dissemination and adaptation of technical advances already made than on innovation and the generation of new technologies. Indeed, only by applying highly selective criteria can endogenous nuclei of technological innovation be created in these countries. In this realm, as in other areas of economic policy, specialization has been the leading way in which small countries have been able to take advantage of economies of scale. Nevertheless, recent trends in the direction of flexibilization of the processes of production and smaller optimum scales of production open up interesting possibilities for small countries to develop comparative advantages in high-technology areas.

The foregoing also has implications for trade policies. Export strategies may vary, but they must all share the objective of turning the small scale of a country into an advantage. Thus, marginality of supply by comparison with world demand is theoretically a favourable factor, since when it exists, increased exports present no problem of absorption for the world market. In many cases, however, the smallness of an economy may prevent it from meeting the minimum demands of the international market

or may preclude its attainment of a sufficiently high degree of competitiveness. Thus, the country may need to seek favourable positions (niches) in certain areas of the world market which enable it to benefit from the advantages offered by its industrial profile and human resources (see box V.1). In other words,

specialization in production and trade, which is a basic principle in the development strategy of any economy, acquires particular importance in small countries. The criteria of specialization must necessarily combine existing and potential advantages, within the framework of a country's economic and social objectives.

Box V.1

CERAMICS IN URUGUAY

An Uruguayan company that exports baked earth to the United States, Europe, Africa and Latin American countries? Not exactly baked earth, but something not far from it: ceramic flooring, tiles, sanitary fixtures and accessories, and tableware. Metzen y Sena S.A., a family-run firm that was founded in 1937, began by importing ceramics from Europe and manufacturing ceramic tile. The way in which the firm has grown since then mirrors the hoped-for results of the Latin American integration model as a springboard for exporting to the rest of the world. Following its growth into a fully-developed industrial enterprise (during which the domestic market served as its production base and the Latin American region served as its classroom as it learned the export business), exports to areas outside the region ultimately became the main focus of its production activities.

For more than 30 years Metzen y Sena S.A. sold its products only in the Uruguayan market; during this period it broadened the selection of ceramics it offered and earned a reputation in Uruguay as a producer of high-quality merchandise. Then, in the early 1970s, it began to export to Argentina and Brazil, and its export activities increased after the Argentine-Uruguayan Economic Co-operation Agreement was signed in 1974 (Metzen y Sena S.A. was one of the first companies to make use of this new mechanism). At the same time it was incorporating and adapting new technologies and expanding its installed capacity in response to the

construction boom that was then occurring in Uruguay. In the early 1980s, however, when the financial crisis hit the country, it encountered serious problems of demand and had to look for new markets outside the region. It was aided in this undertaking by the capabilities for competing at the international level which it had developed in the course of its activities within the region and by its knowledge of the export business.

Once containers began to be used in the regular liner services linking Uruguay with other continents, Metzen y Sena S.A. was able to export thousands of small, fragile pieces having a low unit value (ceramic flooring, tiles and sanitary fittings) in a single shipping unit, thereby avoiding the need for separate handling of the pieces at the dock or during transshipment. The containers also protect the large-sized products (sanitary fixtures) from the inevitable blows received during international transport.

Container shipping thus allowed Metzen y Sena S.A. to find its niche in the exacting markets of the industrialized countries as an exporter of a broad array of high-quality ceramics. This wide selection of products allows importers to obtain almost all the pieces they need, in co-ordinated colours and designs, from a single source. Indeed, the firm is capable of shipping an importer a complete, ready-to-install bathroom by container, with flooring, tiles, sanitary fixtures and fittings in the styles and colours selected by the purchaser.

B. SUPPORT FOR GENUINE COMPETITIVENESS

1. Trade and exchange rate policy

In the majority of countries, changes in production patterns would require that the economy be more open; however, if trade liberalization is to strengthen the growth process (rather than inhibiting it) it must not only give rise to more imports but must also promote a rapid and unrelenting expansion of exports. To this end, tariff and tariff-related protection policies, exchange rate policy and export promotion policies must be brought into harmony. All these policies would probably benefit by reform with a view to providing all sectors and especially those based on exports and on import substitution with an equal amount of protection; using selective mechanisms of a temporary nature to support the more dynamic sectors which absorb technical change more rapidly and compensating for the more glaring drawbacks in the capital and labour markets.

If openness is to contribute to growth and to the changing of production patterns, a high and stable real exchange rate must be maintained. If this is done, it not only results in an increase in profitability and therefore in the production of exports and of traditional import substitutes, it also has the same effect on many other goods and services which, with a lower or more widely fluctuating exchange rate, might appear non-competitive on the international market. Thus, in addition to promoting the growth of exports, the maintenance of a high and stable real exchange parity helps to diversify them.

Real devaluation will, however, be only partially effective as a stimulus to international competitiveness in the presence of very high levels of protection. As has already been explained, one effect of high levels of protection is that a country's producers find that they are forced to buy the inputs and capital goods they use at prices which may be considerably higher than world prices. Consequently, final goods frequently *seem* non-competitive in international terms even when they are

produced efficiently if the *real* amount of resources used to produce each unit is taken into consideration.

Consequently, the second requirement for ensuring that openness contributes to the expansion of exports is that the system of trade protection must be rationalized. As is known, in many countries of the region protection is not only very high on average but is in addition very unequal and is applied through a large number of highly varied mechanisms (see box V.2). Thus, in many countries, the level, dispersion and complexity of tariffs and quotas has meant that the protection provided for each sector reflects first and foremost the capacity of the factors of production in that sector to exert pressure, and by no means results from a voluntary attempt to correct or compensate for existing differences between social and private costs (which may depend on, for example, acquisition of industrial know-how, technological externalities or distortions in the labour market). This state of affairs demonstrates the advisability of simplifying the protection system by replacing quotas and other mechanisms of direct control by tariffs and reducing the level and dispersion of the latter. Thus, at the same time as the system of protection is made less bureaucratic and more flexible, enormous differences in the levels of effective protection provided for different activities could be reduced and the anti-export bias for which the present system has in practice been responsible in past decades would, to a considerable extent, be corrected.

Although trade liberalization policies are desirable, they are not easy to implement. In the first place, it must be borne in mind that while a reduction in tariffs promotes the competitiveness of exports by reducing the cost of inputs, it tends to increase imports. What is more, the increase in imports will in practice probably take place more rapidly and comprehensively than the increase in competitiveness, which will result in a short-term drop in the balance of trade.

THE VENEZUELAN TRADE REGIME

Up to the end of 1988, the Venezuelan external trade régime was characterized by the existence of a large number of regulatory instruments which included: exchange rates differentiated according to the type of goods; tariff duties made up of highly differentiated and dispersed ad-valorem and specific tariffs; tariff exemptions which were not always granted in line with pre-established policy criteria; automatic tariff exemption for all public sector institutions as well as for a number of products imported under the CKD (completely knocked down) system; lists of goods whose importation was completely prohibited; import and export licenses; grants of exclusive import rights to certain public enterprises; administrative allocation of preferential-rate foreign exchange for imports; export incentives through the issue of bonus certificates; and partial-scope bilateral agreements arranged within the context of the Latin American Integration Association (ALADI).

In addition to these provisions, the following elements also affected the profitability of the various sectors in one way or another and, hence, the allocation of resources: a) agricultural quota-fixing policies which obliged national producers to buy Venezuelan products before any imports could be authorized, the most outstanding examples of which were those governing cotton and inputs for feed concentrates; and b) extensive control of prices, many of which lagged considerably behind the levels of inflation.

The consequences of this multiplicity of regulations were a high degree of dispersion of nominal tariffs, which ranged from a maximum of 972% to a minimum of 0%, and difficulties in evaluating the level of the net incentives granted to the various activities, so that the signals derived from the tariff instruments ran counter to the direction in which it was sought to orient the allocation of resources. Even if the legal tariffs had actually been applied, the degree of

dispersion of nominal protection given to products of a similar nature represented a constant incentive to evasion, which apparently reached considerable levels, for although the average nominal tariff level was close to 52%, the actual tariff revenue never rose above 7% of the CIF value of total imports.

Furthermore, lack of confidence in the tariff instruments led both the authorities and entrepreneurs to resort to quantitative restrictions as a means of containing imports and/or securing protection. The granting of licenses was not the absolute faculty of the public institutions, since the business associations had the right of veto over them. Thus, imports were governed more by the interests of the most influential groups than by industrial policy. Moreover, during periods of shortage of foreign exchange - that is to say, practically the whole period after 1982, but especially from 1987 onwards - the procedures for the licencing of imports and the provision of foreign exchange at preferential rates resulted in limitations on the availability of inputs which negatively affected national production.

In view of the foregoing, the Venezuelan Government decided to carry out a reform of the external trade régime. It was agreed to begin this reform in 1989 with a drastic elimination of quantitative restrictions on imports, together with a moderate reduction in tariffs. It is aimed to continue with a gradual process of suppression of quantitative restrictions and further tariff cuts. The final objective of this reform is to achieve, within a space of three to five years, a system of non-discriminatory incentives which offers moderate levels of protection and eliminates anti-export biases. In conjunction with these changes, the Venezuelan Government has made progress in the freeing of domestic prices and has earmarked resources to facilitate industrial restructuring. It is also planned to establish new export incentives and to modernize the country's ports and customs system.

That being the case, if a decrease in tariffs is to promote net exports, thereby strengthening the balance of payments, it must be accompanied by a compensatory real devaluation. In this case, those activities which are in competition with a country's imports will

benefit from a similar level of total protection (tariffs plus exchange rate) to that which exists when tariffs are raised and the real exchange rate lowered. This policy in which trade liberalization is combined with compensatory rises in the exchange rate was applied, for

example, in Chile from 1974 to 1976 and from 1985 to 1989, and in Mexico between 1985 and 1987 (see box IV.8).

In the absence of such a policy, a tariff reduction tends to erode the external balance, and its effects on the economy may be contractive. When that happens (and it typically does when trade and, especially, exchange rate policies are applied as anti-inflationary devices), imports are strongly encouraged with the result that substitute activities are damaged. Exports are not encouraged to the same extent, and, in any case, they can only react slowly.

In the second place, the objective of increasing international competitiveness might come into conflict with that of advancing in the area of strategic linkages, especially in so far as the industrialization of intermediate goods and raw materials is concerned. No simple solutions exist to the problem of the possibility of conflict between these two objectives. Selectivity and gradualism, which are considered further along in this study, might contribute to the technical progress of the more complex manufacturing activities in the chain of production. By the same token, efforts to promote specialization within the processes of integration might also be useful, particularly in those branches of activity where economies of scale play an important role. Finally, the possibility exists of providing protection at higher than average levels, on a temporary basis, to a limited number of strategically important activities.

What has been said so far could be taken to indicate that some policies to increase international competitiveness tend to bring tariff protection down to a lower level, to reduce the tariff dispersion and to effect a balanced combination of tariff and exchange rate policies. The next step would be to define the intensity of the effort to liberalize trade, the speed with which that goal should be accomplished and the exact ways of accomplishing it. In this respect, there are no easy or universally valid answers. The factors to be taken into consideration include, first of all, the level of protection existing when a policy promoting openness is initiated. For economies where an import license must be obtained in advance, the simple act of replacing that requirement by the application of tariffs, even high tariffs, constitutes an advance. Consideration must also be given to a country's

external trade policy, its integration commitments and other variables related to its structure of production and to the points of view of the various interests at stake.

While it may be advisable to proceed slowly but surely towards a system in which the tariffs applied are more nearly equal, that does not mean that other special protective mechanisms must be excluded. Such mechanisms include price bands, whose objective is to keep sudden fluctuations in the international prices of commodities from having an exaggerated effect on domestic prices; customs surtaxes, whose purpose is to neutralize the effect of certain kinds of unfair external competition, and, as already stated, higher than average tariffs (which reach their highest point gradually in accordance with a policy announced in advance) in order to provide infant industries or industries of particular strategic interest with special protection on a temporary basis.

Similarly, in the promotion of exports, especially non-traditional exports, it might be advisable to use selectively determined tax, commercial and credit incentives. Export contracts have proved especially effective in this connection, not only in the newly industrializing countries of Asia but also in countries such as Brazil and Costa Rica (see box V.3). When such mechanisms are applied in moderation, they may help put export incentives on the same footing as incentives to produce goods for the domestic market, accelerate exports of goods produced in sectors with idle capacity which cannot be fully used due to lack of liquidity, and promote the initial growth of exports considered to have particularly favourable prospects in the medium term. It must, however, be borne in mind that the capacity of the State to administer such a system of incentives efficiently is limited, that its operation has fiscal implications and that its indiscriminate use can lead to abuse. For these reasons, incentives should be applied only to correct the more serious failings characterizing a market.

The immediate aim of these selective policies is to put an end to the main bottlenecks and distortions which have impeded the production of tradable goods and the growth of exports, in particular. The maintenance of a high and stable real exchange rate constitutes a stimulus to all activities producing tradable goods; to this may be added, in the case of some infant

INCENTIVES FOR NON-TRADITIONAL EXPORTS IN COSTA RICA

During the last five years Costa Rica's non-traditional exports (medicines, fresh fish, shrimps, pineapples, ornamental plants and flowers, clothing and aluminium and copper cables) have expanded rapidly and have helped it both to strengthen its economy's external position and to diversify its export markets. Between 1984 and 1988, these exports showed an 80% increase (from US\$336 million to US\$611 million) and the share of the country's total exports which they represent climbed from 36% to 50%. Non-traditional exports have also been diversified in geographic terms: whereas in 1980 three-fourths of such exports were sold to the Central American countries and Panama, in 1987 these countries accounted for only one-third of the value of the non-traditional products exported by Costa Rica.

A number of factors have played a part in the growth of Costa Rica's non-traditional exports. In the 1980s, the recession which hit the local and subregional markets forced producers to seek out other markets; the Caribbean Basin Initiative provided some Costa Rican products with preferential access to the United States market; and reductions in Costa Rica's customs duties helped to diminish the anti-export bias of its trade policy. Nevertheless, these are not the only reasons for the country's success in this regard.

Another element which has been conducive to exports is Costa Rica's exchange policy, since the maintenance of a high and stable exchange rate for the colón in real terms has contributed to the profitability of export activities. Furthermore, incentives for exporting non-traditional products to markets outside the region, which the government introduced in the 1970s and then expanded in the 1980s, appear to have been an important factor as well. As a result of various administrative decisions, exporters of non-traditional products to markets outside the region have been able to choose among the following régimes: a) export contracts, b) inbond assembly arrangements, and c) a customs-free zone. Firms operating under the first two systems account for approximately three-fourths of non-traditional Costa Rican exports to markets outside the region, whereas companies in the customs-free zone are the source of less than 5% of such exports.

Exporters using the system of export contracts are assured of receiving incentives whose levels remain constant over time. The chief benefit of such contracts for direct exporters is the Tax Credit Certificates (CAT), which amount to a rate of 15% if the value added in the country is at least 35%, and to a rate of 20% if the value added is over 50.5%. Other benefits include their exemption from taxes on domestically-produced and imported inputs used in the production of exports, a profits tax exemption, and provisions allowing for accelerated depreciation. By late 1987 the government had signed such contracts (which will expire in September 1996) with 797 firms that were exporting about US\$200 million in merchandise per year and had stated their intention of creating 4 218 new jobs.

The inbond assembly régime (which provides for the temporary clearance of goods into the country) dates back to 1973, but its application was expanded in the 1980s. In 1982 only 32 firms were operating under this system, but by the end of 1986, a total of 132 inbond assembly enterprises were functioning which employed over 15% of the industrial labour force and produced 5% of the value added in the manufacturing sector. In 1989, these companies exported over US\$200 million worth of merchandise. Their output (more than 80% of which is textiles) is exempt from income taxes and from taxes on inputs.

The customs-free zone régime, which was established in 1981 and later modified, permits firms to operate in Costa Rica which, legally, for customs purposes, remain outside the country. Such enterprises may sell up to 49% of their output in Costa Rica so long as they pay customs duties on the percentage of the goods' value which was added outside the country. On the other hand, the inputs sold by Costa Rican firms to companies in the customs-free zone are regarded as exports and are eligible for CAT certificates and other incentives. Use of the customs-free zone régime was slow in starting, but by 1988, 33 firms employing nearly 5 000 persons and exporting US\$37 million in merchandise had joined this system.

industries and activities, the application of customs surtaxes. (As stated above, these should be reduced gradually in accordance with a schedule announced in advance of their application.) As for import substitute activities which have already been established, they may primarily receive export incentives, with a view to facilitating their entry into international markets; activities which are already well established should not receive special incentives.

One basic result of the application of the exchange rate, tariff and selective promotion policies described above at one and the same time would be the gradual diversification of the structure of exports. This structure would include goods produced by import substitution industries, which, although theoretically tradable, have not in practice been exported because of distortions caused by the level of protection provided for in the traditional system and the structure of that system. Thus, economic growth could be based progressively on the expansion of non-traditional exports and of manufactures in particular (a sector in which Latin America and the Caribbean still have very limited participation in the world market). This would make it possible to benefit from and in many cases expand the great industrial platform built up during the period of import substitution.

Throughout this process, and particularly during the critical stage when the industrial apparatus is reconverted and modernized and genuine competitiveness, capable of providing access to new external markets, is achieved, selective intervention by the State through the granting of tax, credit and trade incentives could supplement the effects of maintaining the exchange rate at a realistically high level.

2. Technological policy

a) General aspects

The technological policy in the various countries should be aimed primarily at the active strengthening of policies relating to changing patterns of production and bolstering a system of innovations at the national and regional levels. It should in addition remain well integrated with industrial, agricultural, educational and trade policies. This would ensure good coverage and avoid gaps,

duplication of functions and especially the granting of incentives for conflicting ends. Finally, it should be borne in mind that no matter how appropriate a technological policy may be, it cannot make up for the absence of an economic and social environment suitable for productive activity of the kind which emerges when macroeconomic variables are under control, the rules of the game are stable, a reasonable degree of competition exists in the markets and some growth is shown in aggregate demand, sufficient physical infrastructure and skilled labour are available, there is access to external credit and reasonable social cohesiveness exists. If these conditions do not exist, an innovative attitude is not very likely to take root and flourish in the production sector, except in the case of a few isolated initiatives.

In order to strengthen a national system of innovations, stress should be laid on the systemic nature of the innovative process. Technological innovation occurs in certain firms or entities, but it is made possible and stimulated by the action of a combination of factors which form the environment of the enterprise. These factors include the presence of specialized services and entities which support innovation, including research centres, laboratories and other institutions which make up the technological infrastructure; consulting firms and engineering offices; entities engaged in standardization, measurements and quality certification, and technical information, education and training institutes and business and professional associations; a body of laws on industrial property and the availability of financing for the various phases of activities relating to innovation. In practice, many successful ventures into the international market may become vulnerable due to the absence or weakness of some of these elements (see box V.4).

b) Minimum requirements for technological development and selective orientation of State intervention

A situation in which the countries of the region have sufficient resources to carry out a dynamic innovation and reconversion policy which reaches all the production sectors is difficult to imagine. Excellence in production must, however, be reached in some branches if only in order to survive international competition. This presupposes the need to

Box V.4

SHRIMP CULTIVATION IN ECUADOR

The case of shrimp cultivation in Ecuador illustrates how swiftly a natural resource-based export activity can be initiated, as well as how vulnerable it can be if certain complementary activities are not developed at the same time.

The first attempts to cultivate marine products in Ecuador date back to 1966, when a group of entrepreneurs tried to put technologies developed in Southeast Asia into application in the province of Oña. Five years later, the first positive results demonstrated the viability of this activity. Construction of shrimp ponds grew slowly at first, and the total area of such ponds was still only 450 hectares by the end of 1976. Later, however, this activity gathered steam, and since 1980 it has boomed. By the end of 1988 about 100,000 hectares were in operation and were producing over 100 million pounds of de-headed shrimp. Shrimp exports, which amounted to just US\$21 million in 1976, had jumped to nearly US\$400 million by 1988, thereby far outstripping banana exports in terms of value.

Almost all of Ecuador's shrimp exports are sold to the United States. In 1988 Ecuador displaced Mexico as the largest supplier of shrimp to the United States market, followed closely by China. Twelve firms, most of which are either wholly or partially owned by United States enterprises, now account for 62% of shrimp exports in terms of value.

Sixty per cent of the area used for shrimp cultivation is harvested on an extensive basis and depends on the larvae and phytoplankton brought in by the tide for the shrimps' food supply, since no additional feed or fertilizers are

used in this type of cultivation, whose average annual productivity amounts to around 600 pounds per hectare. In another 15% of the total area, cultivation is semi-intensive. This type of cultivation is carried out by vertically-integrated firms which use a large amount of supplementary feed and maintain strict technical controls. The output of this activity ranges between 1 900 and 3 200 pounds per hectare per year. Intensive mariculture, using techniques developed in Asia, is a quite new undertaking and is thus far being carried out only on an experimental basis by one or two shrimp-producing enterprises.

Until the early 1980s shrimp cultivation in Ecuador relied entirely on the use of natural larvae collected from estuaries; this system underwent a crisis in 1984/1985, when the scarcity of "seeds" forced half of the shrimp ponds to suspend production and prompted the establishment of ten larvae hatcheries or laboratories. The recovery of the harvest of natural larvae in recent years, in combination with the high production costs of laboratory cultivation (double that of natural larvae harvesting) and an incomplete mastery of production techniques, appear to be the factors that have hampered the integration of laboratory cultivation into the chain of production on a continuing basis, which may endanger the future growth of this activity. Another source of vulnerability is the encroachment of shrimp ponds upon mangrove swamps and the felling of trees in the swamps for use as building material, since the mangroves and estuaries are the chief sources of "seeds" for the shrimp ponds. Hence the importance of research in the field of mariculture.

choose, and a twofold problem arises to which universally valid solutions do not apply – how to decide which activities should be given priority and who should provide the necessary leadership in co-ordinating those activities. The first question calls for a technical analysis of the best possibilities and for an effort to promote technological innovation in selected activities, such as tropical agriculture and the processing of sugar-cane, in which such innovation is not simply a matter of imitation (see box V.5). As for the second question, successful international experiments suggest that there are

areas where government authorities cannot shirk responsibility in a scheme involving strategic consensus-building with the private sector.

Seen in this way, technological policy would have two main aims. One would be to create general conditions which facilitate the assimilation of technical progress in all sectors of activity; the other would be to concentrate action and instruments in a limited number of fields where it has been decided to accelerate progress towards excellency in production.

This approach characterizes State action of a kind which is aimed at promoting technological change and has been taken in, for example, Japan, many of the newly (and successfully) industrializing countries and the small countries

of Europe. The elimination of trade barriers, the promotion of domestic and external competition, the liberalization of rules and the establishment of links between enterprises and research centres all help to create market

Box V.5

BIOTECHNOLOGY IN CUBA

The foundations for the development of biotechnology in Cuba were laid during the 1960s when a number of institutions were established, under the auspices of the Academy of Sciences and Technological Innovation of Cuba, for providing training for scientific personnel. In 1981 a national programme was set up for further research in molecular biology and biotechnology using recombinant DNA and cellular fusion techniques. The Biological Research Centre (CIB) and the Genetic Engineering and Biotechnology Centre (CIGB) were established in 1982 and 1985, respectively.

CIB, having developed interferon as an experimental model, currently produces alfa and gamma interferon by conventional and recombinant methods. Clinical research in Cuba is generally carried out along much the same lines as in other laboratories around the world, but its main focus is on combating tropical diseases. On the basis of alfa interferon, progress has been made in the fight against dengue, hemorrhagic conjunctivitis, laryngeal papillomatosis, hepatitis type B and herpes, as well as other viral diseases. To date, more than 10 000 Cubans have received interferon treatment. Cuba is now the second largest producer of alfa interferon in the world, and Medicuba, a State-owned enterprise, hopes to distribute this anti-viral drug worldwide. CIB is also developing other product lines, such as Interleukin 2.

On the basis of the experience gained by CIB, CIGB has focused its efforts on responding to social and economic problems in human health, agriculture and industry, applying advanced technologies with a view to achieving gradual import substitution and access to new products which are now inaccessible because of their high cost on the international market. In fact, sales of products developed by CIGB are beginning to make significant gains as a proportion of Cuban exports. More than 300 persons at this Centre are working directly on research activities. Of these, 230 have university degrees, and an increasing proportion have completed post-graduate studies. The Centre's ample facilities contain modern, high technology equipment, including

an ultraviolet ray spectrometer, gamma and scintillation counters, a spectrophotometer, equipment for electrophoresis, a DNA synthesizer, fermenters and centrifuges.

CIGB is able to apply the most advanced techniques of modern biology in carrying out studies of cloning and its laboratory use, experimental production, industrial design, product evaluation and applications, mass production of monoclonal antibodies and micropropagation of plant cells and tissue cultures.

CIGB's main specialties include recombinant techniques for obtaining proteins and hormones; vaccines and diagnostic tools; monoclonal antibodies; the use of biomass and its chemico-enzymatic transformation; development of limiting or modifying enzymes; improvement of plant species; and purification of proteins. CIGB currently produces 136 products, including the following: 15 recombinant proteins; more than 40 of the 70 monoclonal antibodies produced in the country; third-generation recombinant kits for diagnosing AIDS; natural and recombinant alfa and gamma interferon; epidermic growth factor, streptokinase and diagnostic probes and vaccines, including one to combat hepatitis B.

Other Cuban institutions, such as the National Centre for Biopreparations and Vaccines, the National Centre for Animal Health, the National Centre for Immuno-assay, the Institute of Oncology and Radiobiology and the Institute of Tropical Medicine, are working on modern biotechnology and tropical medicine in specific areas, and have achieved significant results. For example, in the wake of the success of the experimental vaccination drives against type B 4 meningitis carried out in 1987 and 1988 on a sample of schoolchildren between ages of 12 and 14, this vaccine was recently given to 92% of the child population. Thus, Cuba is the first country in the world to have conducted a nationwide vaccination campaign against this type of meningitis, which primarily affects children and is a particularly deadly disease.

conditions favourable to technological innovation in all sectors. It should be noted that the strengthening of specialized institutes, the granting of preferential subsidies and the provision of capital inputs and financing or of access to foreign currency in cases where it is scarce formed the nucleus of the special action taken to develop technology in specific fields.

In general, technological policy should be concentrated on three broad categories of activity:

The first of these consists of activities directed towards the completion and adaptation of the technological infrastructure in certain selected, high-priority areas. These might be branches which make up part of important chains of production but in themselves constitute a very weak link and suffer from an absence of the technological research carried out in the industrialized countries (studies on techniques for the intensive use of manpower, research in tropical agriculture, etc.).

The second category of activity is designed to promote greater propensity for innovation in enterprises themselves. This can be done by giving technological innovation its due as a strategic variable and a source of profit, granting government incentives to existing enterprises for undertaking innovative activities and supporting the creation of new enterprises which make intensive use of technology.

The third and final category of activity in this connection is the use of various institutional arrangements to develop a network of close links between the production sector on the one hand and the research system and the rest of the technological infrastructure on the other and to work within the system of production to promote dynamic contacts between users and producers of goods and services. All this might be done by having recourse to certain integrated systems of production in which experience and basic skills have already been accumulated at the local level; these might include some of the sectors which process natural resources and the industries in those sectors.

Some progress has been recorded in these broad areas of action, especially in Argentina, Brazil, Cuba, Colombia and Mexico, in which the greatest efforts have been made to increase the technological capacity of industry. In most of the countries of the region, however, certain

problems persist. These include initiatives undertaken in isolation, whose impact has not extended to the rest of industry; technological policy measures which have not been backed by the action needed to supplement them or have had their effects neutralized by other measures; insufficient or unreliable resources received by institutions responsible for furthering innovation; lack of communication between a country's research system and its production activities and the assignment to industry of a role in research activities which is still too small. Finally, in spite of certain recent changes, the technological policy of many countries is still disassociated from their industrial policy and remains closely linked to the traditional concept of science so that, in the last analysis, it is closer to the sphere of formal education than to the production sector.

c) Links between agents of innovation systems

Mechanisms for establishing links between a country's research system and its enterprises include university offices for the transfer of technology, research centres or consortia managed on a co-operative basis or through agreements between universities and groups of enterprises, associations in which financial bodies and universities work together to finance innovative projects, entities which "incubate" technology-based enterprises and technological parks (see box IV.3). A consensus exists with regard to the advisability of rethinking the objectives and structures of technological institutes created in past decades at the government level with a view to aligning them more closely to the needs of the production sector. This can be done by, for example, devising joint administrative schemes with the private sector, making a reasonable level of self-financing mandatory or funding innovative projects in which groups of enterprises also participate.

In order to establish effective links between a country's research system and its enterprises, some changes should also be made in the organization of the enterprises themselves and of existing research institutions, and in connection with the regulations which govern their activities (see box V.6). These changes include modifications of the administrative and legal framework of universities and technological institutes for various purposes, the first of which would be to improve the

management of financial resources in research projects undertaken within the framework of joint management schemes; this would include such aspects as the drawing up of contracts, the intellectual and industrial ownership of the findings obtained and, at a later stage, the licenses and patents corresponding to those findings. A second purpose would be to promote and regulate the participation of research personnel in such tasks, thereby facilitating greater flexibility of operations and greater mobility of professionals between universities, research centres and enterprises.

Finally, change would make it easier for scientists, engineers and administrators to learn how to manage technology and would also further the training of research personnel showing entrepreneurial leanings.

The participation of enterprises in these joint initiatives could in turn result in the formation of groups of research personnel within them; at the beginning they would be responsible for supervising research projects, and later they could be incorporated into more formal research and development units (see box V.7).

Box V.6

TECHNOLOGICAL INNOVATION CENTRE (CIT) (MEXICO)

The "Centro para la Innovación Tecnológica" (CIT) was established within the National Autonomous University of Mexico (UNAM) in 1983 for the purpose of formulating a policy linking the production sector with UNAM, which is the country's largest university and contains over 30% of its research capacity. At present CIT operates in a building donated by Ingenieros Civiles Asociados, S.A. (ICA), a Mexican construction company, which provides working space for 35 technicians and research workers. Some 50% of CIT's work is related to the links between UNAM and industry, the remaining 50% consisting of teaching, research and the provision of consulting services in the field of technological policy and management.

Those activities of CIT which are specifically related to the establishment of links with industry consist of the preparation and negotiation of contracts, the location of research workers or enterprises with a view to establishing links between them and the university, the provision of support for research workers to keep projects in line with the needs of their clients, the collection of technical and market information, and the development of strategies for obtaining national and international patents. Once contracts have been signed for projects, however, the follow-up phase accounts for 50% of the time available.

Over 170 contracts have now been signed. Twelve processes or products developed by CIT are now on the market or in the final stages of execution; 15 contracts have related to technical studies carried out to the entire satisfaction of the Centre's clients; 11 projects have been definite failures, owing to financial, market, technical or managerial problems; and the remaining contracts relate to projects now in the course of execution.

CIT played a very active role in the creation of CETEI, a research, management and services centre specializing in electronics and informatics which is physically, legally and financially located on the borderline between the university and industry. After having being in operation only 18 months, CETEI became financially independent and has already established one branch company while two more are in the study stage. The recent trend towards self-financing and the crisis in the Mexican electronics industry have resulted, however, in CETEI's conversion into a consulting firm, which to some extent impairs its original role of providing a link between the university and industry.

Practically since its inception, CIT has enjoyed considerable international support. It has received advisory assistance from international experts for both short and long periods, which has enabled it to strengthen its training programme substantially as well as its whole conceptual framework in general. In addition, it has received support totalling nearly 25% of its budget for contracting Mexican staff and computer infrastructure. Another 25% was obtained from training and consulting contracts, while the remainder came from the university budget.

For two years CIT was the headquarters of the Latin American Technology Management Association (ALTEC), an organization with over 150 members interested in this subject. At present, ALTEC's headquarters are located in the Science and Technology Management Programme (PACTO) of the University of So Paulo, the oldest and longest-standing centre for teaching, research and consulting services on the management of technology in Latin America, with which CIT maintains close and ongoing co-operation.

Box V.7

AGROCERES

The firm AGROCERES was founded in 1945 by two geneticists who had launched one of the first research programmes on hybrid maize at the Universidade Federal de Viçosa in Minas Gerais, Brazil, in 1937. Prior to that time, experiments with hybrid maize had been carried out at the Universidade de Campinas (1932). In 1948, after the first commercial hybrids had been produced, the firm signed an agreement with IBEC, a member of the Rockefeller group, and three years later it became a limited liability company in which IBEC was the majority shareholder. The merger with IBEC made it possible for AGROCERES to install modern equipment of the type used at the international level in the production of seeds, increased its financial resources, and gave it access to national and foreign banks, all of which was essential in order for the firm to expand its operations.

The training provided to the firm's staff in the field of technological research proved to be a decisive element, since this gave it a stable team of researchers who formed the critical mass it needed in order to channel its research efforts towards meeting the requirements of a wider range of regions and types of producers than those served by the foreign firms which entered the market in the 1960s. The technological capabilities which this gave the firm also permitted it to negotiate with transnational corporations on a more even footing.

The first stage in the firm's development, which drew to a close in the mid-1960s, was characterized by the creation and growth of a market for seeds produced from laboratory-bred hybrids, the strengthening of the firm's research and development department, and the expansion of its operations to a point where they were on a par with those of the major international seed producers. This expansion was facilitated by the fact that, up to the end of the 1960s, AGROCERES was in a position to set the going price in the market for hybrid maize, since it hardly had any competition. Moreover, some of the big transnationals' first attempts to break into the market were not very successful despite the fact that they were using strains developed by the Institute of Agronomy of Campinas. Indeed, it was not until the second half of the 1960s that the first such corporations, CARGILL and DEKALB, won a place in the market when they launched the first hybrids adapted to the conditions of the extreme south of Brazil. This was also the stage during which the firm introduced two of its major genetic innovations: the discovery, in the early 1950s, of androsterility in a local variety of maize (charrúa), whose utilization brought down the production costs of hybrids; and the discovery of mutants of a protein-rich variety of maize of Brazilian origin.

During a second stage, thanks to the extensive marketing network that the firm had set up during the first stage and to the skill of its

technical team, AGROCERES proved to be a match for the growing competition of transnational corporations, holding on to between 40% and 50% of the market.

At the same time that the firm was proceeding with the introduction into its other strains of the androsterility discovered in the charrúa variety - which had the advantage of being resistant to a fungus that decimated the seed output of Brazil and the United States in 1969-1970 - it also developed and introduced hybrids suited to mechanization and intensified its research work on early hybrids which were less vulnerable to climatic changes.

During this period AGROCERES introduced a mechanized system of seed harvesting suited to large-scale seed production units. This innovation, which constituted an improvement upon the manual harvesting practices in use not only in Brazil but also in the United States, triggered other changes in the seed extraction process which further distanced it from the system being used in the United States and which permitted the scale of production to be significantly increased. These modifications, which were arrived at through a process of trial and error, are being studied on a systematic basis by the Seed Technology Department of the agricultural institute in Piracicaba.

On the basis of its experiments with hybrid maize, AGROCERES was able to begin incorporating other innovations which were conceptually related to its hybrid maize production techniques or to the technological packages associated with its cultivation. As part of this effort it founded HORTICERES, a company devoted to the production of vegetable seeds; initiated the development of improved sorghum and fodder seeds for use in the Brazilian savannas (in partnership with the Empresa Brasileira de Pesquisa Agro-Pecuária (EMBRAPA)); began to produce pesticides; and entered into joint ventures to produce high-yield breeds of swine (1977) and poultry. In the latter case, a long list of different transnational corporations had to be approached before the firm Ross Breeders finally transferred the genetic material used in its research work to AGROCERES in 1988, eight years after the firm had become the property of Brazilian entrepreneurs.

Once the ownership of AGROCERES had been transferred to Brazilian nationals, the firm embarked upon new projects: with its acquisition of BIOMATRIX, it moved into the field of plant biotechnology; it began a project relating to its line of pesticides in association with the Universidade Federal do Rio de Janeiro and the Universidade Estadual de Campinas; and formed a partnership with NORAGRO for the purpose of starting up activities in specialized areas of the fine chemicals industry.

Interaction between users and producers is promoted in response to the need to develop the local subcontracting of supplies for large user enterprises and to be able to rely on a greater capacity for innovation in supplier enterprises, particularly those engaged in the production of goods and services with a relatively high technological content, including certain capital goods, spare parts and specialized inputs and engineering and research services. Close and regular contact between professionals on both sides has a number of advantages. It enables them to work together in solving certain technical problems; facilitates the joint development or adaptation of products and processes; furthers the establishment of uniform technical standards in respect of purchase specifications, delivery procedures and maintenance criteria; makes it possible to exchange technical information and provides advanced and detailed knowledge of the future demand of purchasers and the production capacity of suppliers. Such contacts also help establish a network of personal relations, in which trust and reciprocal knowledge play a decisive role.

The mechanisms of interaction may be based on some instruments which already exist in the region and have had good results. Among these, mention may be made of the so-called "nuclei of industrial linkages" set up in Brazil, Venezuela and Colombia as extensions of the purchasing departments of large public enterprises. The purpose of these bodies is to furnish detailed information concerning the purchases made by these enterprises, to look for and select potential suppliers, to negotiate with them, to provide technical advisory services, to perform the follow-up on such services and even to support the joint development of new products and services.

These functions may also be carried out through a different institutional modality in the form of a private entity whose members consist of a number of enterprises (both users and producers of goods and services) and are financed through contributions made by their members. This arrangement has a number of advantages, including that the new entity is in a neutral position, equidistant from purchaser and seller; that it takes advantage of the reciprocal learning generated by contact between different production sectors and

enterprises; and that it has an income whose size depends on the number of member firms and ultimately on the efficiency of their operation (see box V.8).

d) *Financing research and technological development*

Experience in the promotion of technological innovation projects in enterprises seems to indicate that direct financial incentives administered by a specialized entity are more effective than fiscal incentives such as tax deductions, accelerated depreciation and the like. One of the first criteria in determining the subsidy component is the size of the enterprise in question, since a subsidy may be proportionally greater for medium-sized and small enterprises. Another criterion is the degree of innovation achieved and its repercussions outside of the enterprise; if this criterion is applied, the amount of the subsidy may be determined by carrying out an evaluation *a posteriori*. The application of a third criterion would mean that joint projects, i.e., projects in which more than one firm or research centre participated, were favoured.

In order to promote a greater degree of innovation in productive activity, the presence in various countries of the region of a pre-existent, largely successful institution would seem to be indispensable. Such a body would specialize in the financing of technological projects, and would allocate resources on the basis of a criterion half way between a commercial and a development criterion. It should be endowed with a broad and flexible range of financing instruments, such as risk capital, soft loans and subsidies, according to the diverse needs of the projects (capital inputs into new enterprises; working capital and credits for industrial equipment and laboratories or for investments in related intangibles such as consulting services, plant reorganization and staff training and retraining).

Regardless of the practical modalities which such an entity might adopt and even though the existence of budgetary restrictions must be recognized, it cannot function properly unless it is managed by a highly qualified team of professionals with sufficient understanding of the technological aspects involved, a sound background in the evaluation of innovative

projects and enough motivation to allow for a flexible, unbureaucratic mode of operation. The entity should also deal differently with large enterprises than with medium-sized and small or new enterprises, in particular where guarantees are concerned, and should establish clear, non-discretionary criteria with regard to its allocation procedures. In addition its activities should be widely broadcast and promoted among productive units and especially among small and medium-sized enterprises.

With due consideration given to the criterion of selectivity, the resources earmarked for technological development in each country should be increased substantially. Their magnitude has traditionally been much smaller, proportionately speaking, than the resources

set aside for these purposes in the more advanced countries and has even decreased markedly during the current crisis. In order to channel such resources, the use of subsidies seems inevitable. Various considerations should be taken into account in this connection. In the first place, the developed countries, even those with a consolidated industrial base and a tradition of entrepreneurial innovation, subsidize between 30 and 50% of private expenditure on research. Secondly, innovation generates important externalities, which in turn produce social benefits sometimes very much higher than the returns to the private sector. Finally, at the regional level, the participation of the private sector in an innovation effort is limited because private enterprises are much smaller, have fewer resources and are less well

Box V.8

INSTITUTIONAL INNOVATION: THE CORPORATION FOR THE TECHNOLOGICAL DEVELOPMENT OF CAPITAL GOODS (CHILE)

As a mechanism for industrial linkage and co-ordination, the Corporation for the Technological Development of Capital Goods (CBC) has worked intensely and successfully since its formation in 1966 to promote national industry, technological development, and the interchange of information and technical knowledge between different public and private enterprises and organizations connected with the production and use of capital goods, engineering services and other industrial goods and services.

The CBC is a non-profit, private entity that has almost 120 member enterprises and is financed by regular contributions from them. Its members include the main user enterprises, especially in the mining, forestry and electrical sectors (such as the Chilean Copper Corporation (CODELCO), the National Electricity Company (ENDESA), the Compañía de Acero del Pacífico (Pacific Steel Company) (CAP), and a mining subsidiary of Exxon, among others), and the principal enterprises in the fields of industrial engineering and services (quality control, insurance, etc.), construction and installation, along with producers of capital goods and materials.

The main services provided by CBC to its members are: the periodical dissemination of systematized information concerning investment projects to be carried out in the country in the next few years; the analysis and breakdown of the groups of technological programmes involved in these projects; continuous information concerning the capacity of the suppliers of

available goods and services; promotion and contacts between enterprises and professionals of the sector; and special studies and high-level arrangements. For example, CBC is presently following up and preparing breakdowns on more than 125 major projects to be carried out in 1989-1995, which together amount to an investment of more than US\$9.5 billion. In addition, programmes of visits involving more than 100 engineers from major corporations were arranged during 1988; supplier development programmes were initiated with six new enterprises, and eight projects for the complete or partial manufacture of equipment or other investment goods were arranged, representing direct substitution worth more than US\$20 million in 1987-1989.

Among the factors that explain the significant accomplishments of this small institution are its expeditious performance, aimed at giving its members rapid and effective answers and based on extensive experience in the field, the high professional competence of its members and its small and unbureaucratic organization, consisting of less than ten people. Likewise, its particular form of action, centred on personalized and diligent management, aims to effect at the same time changes in the internal policies and attitudes of buyers in the user enterprises, as well as a higher degree of commitment, responsibility and striving for excellence in the supplier enterprises.

disposed to innovation than their counterparts in more highly advanced countries.

With regard to criteria for granting incentives, a cost-benefit criterion shared with participating enterprises should be used whenever possible. In other words, the participating enterprises should be expected to cover some of the expenditure on the activities supported and to return some of the profits generated by innovative projects. In general, simple mechanisms governed by well-defined, non-discretionary rules should be favoured, and, so that flexibility can be combined with a minimum amount of continuity in support programmes, provision should be made for follow-up and for periodic evaluation of the instruments used.

e) *Science and technology in the agricultural sector*

In the realm of agriculture, those research bodies in the region which once came under the jurisdiction of the Ministries of Agriculture later become autonomous, decentralized national institutes which adopted a model similar to that of the system of experimental stations in the United States. Most of them concentrated on applied research, exceptions being the National Institute of Agricultural Technology of Argentina (INTA), the Agricultural Research Corporation of Brazil, the Biological Research Centre of Cuba and, to a lesser extent, the Agricultural Institute of Colombia, all of which made significant progress in basic and applied genetics (see box V.9).

Box V.9

THE NATIONAL INSTITUTE FOR AGRICULTURAL TECHNOLOGY (INTA) AND NEW METHODS FOR PRODUCING HYBRIDS IN ARGENTINA

The classic method for obtaining new commercial varieties of hybrid maize is increasingly costly. To attain the desired variety, eight or more successive generations of cross-breeding are needed, each of them subject to the duration of the biological cycle of reproduction. The hit-and-miss character of the process demands thousands of crossings in order to get near the sought-for attributes, and there is a loss of productivity in the generations obtained from the successive crossings, all of which raises the estimated cost of producing a new variety to around a million dollars.

The genetic innovation developed by the National Institute for Agricultural Technology (INTA) has revolutionized the selection and production of hybrid maize seed, cutting in half the process of generating a simple hybrid and usually trebling the output per hectare. The cost per kilo, even without considering the shorter time involved, can be reduced to half or less.

The new technique, termed "balanced lethal factors", was the result of a long process of training highly qualified experts who, from the mid-1940s onward, performed the basic research needed to develop it (mutagenesis and genetics applied to improving plant varieties). After 20 years of research, techniques to induce mutations in barley made it possible to obtain permanent

hybrids in this crop, whose reproductive mechanisms, unlike maize, do not lend themselves to natural hybridization. Towards the mid-1970s, INTA began to apply the new technology to maize, and after more than ten years of research it finally obtained high-yield lines whose usefulness for users and production possibilities on a commercial scale could be evaluated.

INTA has decided to secure for itself the "innovation rents" from the new method, in order to finance future scientific and technological research in this field. It has also decided to enter into a "technological linkage" agreement with the Argentine Agrarian Federation (FAA), for the creation and dissemination of simple maize hybrids, using the balanced lethal factors method. Under this agreement, INTA grants the FAA the exclusive right to multiply, produce and market the seeds, in exchange for which the FAA will finance the technological research and dissemination entailed by the new method and will pay a royalty on future sales of the hybrid seed, with INTA reserving for itself the right of veto on the sales policy that the FAA may put into practice.

The new method could be extended to other crops, such as sunflowers and tomatoes, and has already given interesting results in barley hybrids.

The work of these institutions, together with that done by some Faculties of Agronomy and related subjects, was decisive in the process of modernization of agriculture, contributing to the availability of seed adapted to the growing conditions of different regions in each country, disseminating knowledge concerning more efficient managerial practices and, above all, training a corps of highly qualified professionals, either directly or by offering fellowships in foreign universities. However, these institutions began to come up against a number of difficulties owing to limitations inherent in the model adopted and to changes in the context of their operation. Actually, this model, although functional in the case of the homogenous agrarian structures which exist in its country of origin, produced results which were beneficial primarily to the entrepreneurial portion of the region's agricultural sectors.

As for the changes which took place in the context of their operation of those institutions, it should be noted that other sources of technological supply emerged, particularly in the form of enterprises producing modern inputs and specialized producers' organizations. In addition, variations occurred in the more dynamic components of demand (inputs for agro-industry and agroexports), and the generators of demand themselves became vehicles of technological transfer. Finally, a reduction occurred in the public resources earmarked for agricultural research, which had in any case always been scarce (1.2% of the agricultural product by comparison with 1.9% in Asia, 2.2% in Europe and 2.8% in the United States). These and other factors caused investors to lose interest and led to very high instances of manpower rotation, with a consequent loss of continuity and accumulated experience.

In these circumstances, the strategy of the future should be designed to promote the establishment of national and regional systems for research and the dissemination of technology. These should be constituted by strengthening all known and potential opportunities for complementarity between private initiative, producers' organizations,

technological institutes and universities in addition to private technological centres, whose creation, in so far as possible as adjuncts of producers' organizations, should be promoted. Public entities and universities should cover those aspects of the task which because of their nature would not be tackled by private agents. This would include, for example, basic research of a kind which proceeds slowly or research and technological extension studies which focuses on small-scale production, primarily in areas in which, owing to their low potential, such production cannot be integrated, in the short term, in agro-industrial chains of production. This does not, however, mean that private enterprises of some scope may not be encouraged to undertake basic research in areas where there are possibilities for realizing substantial returns from innovation (see box V.7).

f) *Support services*

A field which has proved decisive in setting up national systems of innovation in industrialized countries and should be encouraged in the region is that of advisory and technical assistance services which deal primarily with small and medium-sized enterprises. They are essential for maintaining effective supervision in companies which have received funding for innovative projects and for strengthening marketing capacity. They may be supported by establishing financial incentives for their engagement by small and medium-sized firms. The delivery of such services may be co-ordinated or channeled through professional associations, such as colleges of engineers), through special units attached to universities or technological institutes or through other independent entities.

Other equally important areas which should be promoted include accelerated training in such fields as technology management, quality control, marketing and the application of new production technologies based on microelectronics.¹ The carrying out of activities designed to increase awareness prior to the administration of more direct stimuli should also be given more attention. The purpose of

¹ This may be done by granting subsidies to recognized entities for planning and organizing seminars and training courses, participation in which is paid for by the enterprises themselves.

such action is to prepare the groundwork so that enterprises and actors are "ripe", that is to say, well informed about and favourably disposed towards incentives when they are offered.²

The institutions used to develop technological innovation may be structured in a large number of ways. One basic requirement in this connection has to do with giving greater political importance to decision-making centres responsible for technological policy by moving them up closer to the levels where industrial policy is formulated. This is of basic importance if they are to have an effective impact, especially on the allocation of resources, and does away with the merely "ritual" creation of institutions or measures which later fail to receive the support they need.³

3. Manpower training

a) *General aspects*

The training of workers is an activity which aims simultaneously at the two most important targets of structural change – growth and equity. While increasing competitiveness, it provides more opportunities for individual and collective development.

The first direct effect of training is that it increases the productivity of the individual worker at his particular job. It also enhances the efficiency of production processes and increases the chances for innovation in both processes and products. Training also facilitates the creation of new enterprises by skilled workers who, unlike other workers, are predisposed to learn new techniques and therefore show less aversion to change, which is of key importance in situations of accelerated technological advance and intensification of international competition.

Changes in production patterns also require human resources capable of adapting to the changing needs of the production sector. Thus, education and continual retraining of the labour force are necessary if the economy is to proceed along a path of sustained growth and equity.

Dynamic economic development, for its part, encourages workers to acquire training and also promotes greater mobility of labour, which helps disseminate skills and augments overall economic productivity.

The acceleration of technical change, heterogeneity within and among the countries of the region, changing requirements with regard to labour skills and diversification of production agents suggest that a single agent should not be expected to assume the tasks of educating, training and retraining human resources. Moreover, the acute scarcity of resources makes it necessary to capitalize on the various contributions which different institutions can make to the training of human resources.

For this reason, co-ordination among the various public and private, central and local agents is indispensable if the problems encountered by societies in the field of education and training are to be solved. Ministries of Education and Labour, municipalities, non-governmental organizations, communications media, training services, public and private production enterprises and various community service organizations are called upon to participate in this task.

At present, we are also witnessing the emergence of a large number of special occupations and the proliferation of mutations within those occupations. The blurring of distinctions between sectors, the increasingly close links between different activities and the systemic integration of different sectors makes increased flexibility, adaptability and a broader view necessary. It is therefore vital, in the field of human resources, that special know-how or skills should be combined with general versatility.

The need for institutional pluralism and flexibility means that raising the level of skills of the labour force and increasing the capacity for innovation and communication are not the task of training or advanced training institutions

2 Measures which may be taken to this end include subsidies for carrying out extension campaigns, demonstrations, seminars and other events designed to make entrepreneurs, young people and the public in general aware of the benefits of technological innovation.

3 An example of this is the organization of that part of the public apparatus which relates to technology in the cases of Japan, Finland, Sweden, France, Canada and many other OECD countries, where a strong institutional link exists between the bodies responsible for technological policy and the Ministry of Industry or its equivalent, under whose direct jurisdiction they fall.

alone. They depend to a large extent on the effectiveness of the regular system of education since it is within that system that people acquire basic mental dexterity (ability to think logically and manipulate language, motivation to learn and the flexibility to adapt to new tasks) and skills (arithmetic calculation, ordering of priorities and clarity of expression). This justifies the need for a long-term strategy leading to a gradual and sustained increase in the various phases and subjects covered in the training available – preschool, basic and secondary education, universities, research centres, training systems, mass education programmes and adult education and occupational retraining programmes.

b) *Preschool, basic and secondary education*

With regard to the overall targets of educational development strategies, the following must be regarded as having priority:

i) *The spread of formal and informal systems of preschool care.* The early mental stimulation of children under six years old and their preparation for school have a powerful effect on the development of human skills. A potential for community action exists and is already applied to the creation of day care centres and preschool services. It could be harnessed through the use of State support for professional educators, providing technical training for people employed in community services and making teaching materials available.

ii) *The incorporation of literacy campaigns for youth and young adults.* The operation of a development process is unthinkable in a population which has not acquired reading and writing skills with all they mean in terms of social communication and access to a thought model. Accelerated economic growth might be achieved by using those human resources who are already educated and leaving the illiterate out; however, this is by no means a desirable approach in view of the key dimensions of development, including equity, democratic participation, internalization of standards of productive coexistence and the development of the human resources potential.

iii) *The incorporation of the entire school-age population in basic education.* The purpose of this is to facilitate future training processes throughout life.

iv) *The introduction of academic requirements and selection at levels of education above the basic level.* While basic education must be governed by criteria of universalism and of equality of opportunity and access to national culture, access to the higher levels of education should be based on criteria of academic selectivity.

v) *A concept of secondary education based on a broad degree of differentiation and numerous fields of specialization.* In applying this concept, educational and training programmes could be designed in such a way that educational institutions imparted general knowledge and, once young people were educated, they were then trained by enterprises as apprentices. Special programmes could also be established by agreement between public and private enterprises, groups of entrepreneurs, trade unions and similar associations, in which students received specific training for short periods of six months or one year.

In general, at the basic and secondary levels, stress should be laid on the transmission of values and rules of conduct in keeping with the acceleration of change and the high technical component of that change. This would require a favourable attitude towards technological training, ongoing education, creative intelligence and the need for flexibility and adaptability; increased discipline in the use of language, manipulation of research techniques and mastery of the exact sciences; and greater interplay between scientific experimentation and the harnessing of scientific knowledge for technological purposes (see box V.10).

c) *Higher education*

At this level, education should have as its frame of reference problems typically encountered by societies such as those in Latin America and the Caribbean, which exhibit differing but always insufficiently high degrees of modernization. Its frame of reference should also include the development potential of the country in question and the options which the societies of the region have for structural change (productive, social and cultural). This necessitates an ongoing process of interinstitutional co-ordination between universities, large enterprises which lead the field in changes in production patterns, public bodies in charge of strategic and industrial

policy planning, and research centres with a high degree of academic distinction.

With regard to higher education, priority should be established in respect of disciplines and technologies which national university systems can offer at a level close to that of those offered by top universities in developed countries; the teaching of the basic sciences (the weak spot in Latin American universities) should be consolidated in an effort to raise the academic standing of the whole system of higher education; flexible systems should be created in which medium-length and long

courses are offered under basic science curricula, and, finally, a science development policy covering not only the university but also other organizations and enterprises in the public and private sectors should be formulated.

d) *Training*

In economies which are highly heterogeneous internally such as those of Latin America and the Caribbean, the challenges faced by a training and advanced training policy are many and varied, since the different strata which exist have different needs.

Box V.10

NEW TECHNOLOGIES IN EDUCATION

In 1987 an educational information programme was launched in Costa Rica which is considered to be one of the most advanced and complete programmes of its type in the world. Its aims are to develop creativity and a capacity for logical thinking, to contribute to technological development, to supplement instruction in basic subjects and to foster a revitalization of education in the country.

The programme, which was created at the initiative of the State, is run, managed and financed by the Omar Dengo Foundation, a private non-profit institution which was founded for the purpose of supporting the efforts of the Ministry of Public Education to improve schooling in the country. The programme is already underway in all public primary schools and operates on a comprehensive, regionalized basis. It will later be expanded to include both secondary education and community programmes.

This initiative is designed to enhance the intellectual growth of both children and their teachers. The Foundation sets up fully equipped laboratories, complete with personal computers, software and trained personnel. The education-oriented LOGO computer language and programmes (which combine games, creative tasks and knowledge-acquisition activities) have been selected and adapted for use in these laboratories. A great deal of emphasis is placed on the training of educators, which is regarded as one of the pivotal aspects of the programme, and a broad network of instructors and supervisors

has been formed to assist in such training activities. The educational concepts developed by Professor Seymour Papert have been adapted for use in Costa Rica by professional educators in the country within the framework of the genetic epistemology of Jean Piaget and other thinkers.

Investment in computer equipment represents 69.5% of the Foundation's outlays, while operating costs account for the rest. The programme is financed by national and external grants as well as by the Ministry of Education (which pays the salaries of the teachers and laboratory instructors) and by community contributions. The computers are owned by the Foundation, which sees to it that they receive proper maintenance. The computers are loaned out to public schools, which are selected from among the country's 17 school districts by the Ministry of Education on the basis of regional and population-density criteria.

The results of the first three years of the programme are now being evaluated by researchers at the University of Costa Rica. By 1990 the Foundation will have installed 4 200 computers in 210 laboratories located in various schools throughout the country serving 42% of the population enrolled in the public primary education system. Even at this relatively early stage it can be predicted that the programme will bring about a true revolution in education that will produce a generation of Costa Ricans whose new attitude towards science and technology will make them better equipped to meet the challenges of the future.

One group which has challenged the efforts of professional training institutes in recent years is made up of workers who are currently employed (see box V.11). In this case, the needs differ according to the size and technological level of the enterprises in which they work. Large enterprises seem to have developed their own relatively effective training systems. In their case, problems requiring urgent attention relate to the need to adopt permanent training systems and to modernize personnel management systems and production systems (rotation of jobs to make the work less routine, the establishment of promotion systems and similar concerns). On the other hand, public training policies have an important role to play in the case of small and medium-sized enterprises. In the first place, these enterprises appear less well disposed to using the services offered by training institutes; secondly, it is in them that the short-term impact of training on production is greater. In this same stratum, improvements are also required in connection with activities which provide both training and support in areas relating to the management of enterprises (such as marketing, finance and technology).

The retraining of workers within enterprises has also acquired increased importance and acceptance. This activity includes the task of adapting people to new jobs, to changes in lines of production, to the use of more advanced technologies, to unfamiliar managerial techniques and to new approaches to the organization of work. Although most of the time retraining is carried out in the enterprise itself, inter-enterprise units based on a group of public enterprises which are technologically in the lead can be created for the purpose of putting training modules into operation. As for the State, it may mobilize processes for the mass retraining of manpower using diverse mechanisms ranging from that of making it mandatory for enterprises to devote a certain percentage of their earnings to a fund for ongoing staff training (as in France) to the

maintenance of decentralized systems in which enterprises, municipalities and regular educational services participate (as in Sweden).⁴

A second stratum of the labour force which calls for special attention is made up of the growing number of young people who are seeking employment for the first time. To meet their needs, apprenticeship schemes and on-the-job training programmes must be improved and post-secondary training activities modernized with a view to finding more flexible ways of educating them. The experience of industrialized countries in conducting programmes which are not an integral part of the traditional cycles of education and whose aim is to train adults and young people with few skills to work in new and more modern occupations may be usefully applied in Latin America and the Caribbean. These are initiation programmes which may include courses to raise the educational level of young people who are far behind their peers or have experienced serious problems in adapting to the school system; prevocational education; training for young people who leave the formal education system at various levels and have received no previous occupational training; specialization programmes whose aim is to deepen the knowledge of those participating in them in areas in which they have previously studied or to enable them to acquire another field of competence; and programmes designed to promote qualitative change in a person's level of qualification (for instance, a skilled worker might be trained to become a technician).

A third stratum is made up of unemployed or informal-sector workers. In this case, training policies must be geared towards job-obtainment. This means implementing mass training programmes using a very wide variety of means, for purposes of incorporation (moving underemployed or unemployed labour towards more modern sectors) or promotion (using training to raise productivity in the activities exercised). The use of schemes

⁴ In recent years, vocational training institutes in the region have tried to redefine their links with enterprises engaged in production. The participation of the latter in the management of such institutes, the provision of new services such as those providing technical assistance and support for management and the creation of open centres of high technology are examples of this trend. At the same time, the traditional approach to the training of workers has been enlarged upon by bending efforts towards the wider goal of competitiveness and productivity. This is a positive development in that it can cause vocational training institutes to adapt better to the concrete needs of production, ensure that they remain in tune with the times, give them a legitimate *raison d'être* in the eyes of entrepreneurs and ensure that their work is subject to periodic evaluation. This does not of course mean that their existence is cause for countries to neglect policies designed to meet the needs of the entire labour force, especially the unemployed.

Box V.11

RECENT INITIATIVES IN PROFESSIONAL TRAINING
INSTITUTIONS IN LATIN AMERICA

In the past few years professional training institutions in Latin America have embarked upon new activities which broaden the role they play in national production systems. The entry by such institutions into new fields of activity is a reflection of their efforts to adjust to the technological changes taking place in the production system, the budgetary constraints resulting from the crisis, and the emergence of new demands, especially on the part of the informal sector. These activities include the provision of new business services, the introduction of high-technology production processes and a number of innovative initiatives in support of small businesses and micro-enterprises.

The new services furnished by professional training institutions to businesses involve management consulting services as well as technical assistance (techniques for raising productivity, developing new products and processes, etc.). Examples of such activities include the services provided under the Assistance Programme for Small and Medium-Scale Industrial Enterprises of the National Apprenticeship and Industrial Labour Service (SENATI) of Peru, which combine training with consulting services, baseline analyses and technical assistance; the introduction of a learning-through-action approach by the National Apprenticeship Institute (INA) of Costa Rica, which sets up workshops for small businessmen where they can discuss their specific problems and arrive at a "self-help" plan with the aid of instructors; and the individualized schemes formulated by the National Industrial Apprenticeship Service (SENAI) of Brazil, through which it both trains industrial personnel and provides industries with technological assistance in solving their structural problems.

The fact that professional training institutions receive a great deal of international co-operation in the form of modern equipment has enabled them to play an important role in introducing and developing new technologies. These activities take various forms, such as, for example, the creation of high-technology centres which provide businesses with such services as the design and manufacture of parts using donated or rented machines and equipment, applied research in the area of production methods, etc.

Initiatives of this type have been undertaken by SENAI (10 centres serving different production sectors); SENATI, which has a centre specializing in numerically controlled computerized machine tools; and the National Apprenticeship Service (SENA) of Colombia, which operates a metalworking and machinery centre in Barranquilla and a furniture and woodworking centre in Medellín.

Another form taken by such activities is that of joint projects undertaken by professional training institutions and technological institutes. Examples include the joint projects of the regional department of SENAI in Rio Grande do Sul and the Federal University of the State of Rio Grande do Sul relating to their centres for precision mechanics and for leather tanning; the projects carried out in Colombia on a joint basis by the Colombian Fund for Scientific Research and Special Projects (COLCIENCIAS) in the field of technological research and development; and the competition for applied manufacturing technologies sponsored by SENATI in collaboration with the National Council for Science and Technology and the Industrial Bank of Peru. A third type of activity which has only recently been developed and which is directly related to technology transfer has been undertaken by SENAI through its technological support units for industry. These units are oriented towards the development of products and production projects, quality control and technological information. In 1989 such units were already in operation in the fields of precision mechanics, graphic arts and metallurgy.

New types of initiatives to provide training for the informal sector and marginalized groups are also being mounted. One example is the public training and production workshops introduced by the INA in Costa Rica. This activity is conducted in centres that are open to young people and adults on a drop-in basis and provides them with the opportunity to design their own programme of studies. The approach has met with an enthusiastic response from users, and the results have been positive in terms of the development of both technical and entrepreneurial capabilities. Similar initiatives have been carried out by the National Technical and Professional Training Institute (INFOTEP) of the Dominican Republic.

combining training with efforts to encourage the establishment of micro-enterprises offers another possibility for reducing unemployment. In this case the worker "creates his own job".

Possibilities for action in respect of the informal sector may be broken down as follows: in the case of small, self-managed units which produce low-technology goods, the idea would be to strengthen the weakest areas through training in management and administration, in the field of specialization, in the use of surpluses and the reinvestment of capital and in marketing. As for own-account workers, training would be offered in various trades; the practical experience acquired would be systematized and put to the test and this action would be supplemented by credit when necessary. Within the context of action to assist young people, training and extra-curricular education could be provided. Finally, as for mass education, it could be offered by governmental and non-governmental bodies through small-scale programmes in which recipients and promoters would participate actively, and could include training in various areas, such as primary health care, reading and writing, self-built housing, community development, use of intermediate technologies and entrepreneurship. If the links between so-called popular education and the formal educational system are strengthened, the latter will be able to enhance its positive effects on the neediest sectors.

The number and variety of tasks to be considered in the field of training make it necessary to provide continuity for the fruitful work being done by vocational training institutes in the region, to promote research and the development of teaching methods and techniques and also to encourage the training of instructors. This is the only way in which training activities can be dynamically adapted to meet the unexpected demands to which the present situation has given rise.

4. Creation of enterprises

A process of change in production patterns whose aim is increased competitiveness must necessarily be accompanied by the participation of a growing contingent of entrepreneurs. These are the agents who directly seek new opportunities and turn them into concrete

production activities; they develop new goods and incorporate innovations into the production processes. A weak entrepreneurial base, whether its weakness is due to the fact that the number of entrepreneurs is small or because the action of those entrepreneurs is characterized by an aversion to risk of the kind implicit in innovation or in the establishment of new businesses, constitutes a paramount obstacle to the advance of the process of change. This, however, is the situation which prevails in the region, especially in the spheres of small and medium-sized businesses. Consequently, policies must be applied which help to overcome the problem gradually.

The main effect of expanding a country's entrepreneurial base is that it strengthens society's capacity to take the initiative in acting in a decentralized manner to meet the challenges presented by rapid technological change and the fast growth of international markets. Designing policies to promote the establishment of enterprises and the training of entrepreneurs is a complex task, which is why certain factors not always taken into account in traditional economic approaches, and even intangibles such as human creativity, intervene in the investment process. Nevertheless, the problem is at present conceived in a way which indicates that there are at least four areas which call for differentiated types of action – the identification of groups with entrepreneurial potential; the development of an idea into a project implemented by a potential entrepreneur; the financing of an enterprise; and the process of putting that enterprise into operation. An additional factor of special importance in Latin America is the need to reconsider the value to society of the entrepreneurial function, which has traditionally been associated primarily with wealth and power. In order to do so, policies which reward innovative entrepreneurial activity of potential social benefit should be designed.

The task of *identifying groups with entrepreneurial potential* involves discovering certain personal and group traits which have proved to be related to entrepreneurial success and identifying groups which possess these traits. This is a particularly difficult task, and in general no criteria for action in this connection have as yet been established. Some groups'

possibilities for success are, however, greater than others. These include, for example, groups made up of professionals in the fields of engineering, economics and administration; persons with technical expertise in certain areas in great demand, and self-employed workers. In addition, the formation of teams of persons with complementary skills in relation to a certain initiative is occasionally necessary (a technologist might, for example, be paired off with someone skilled in the management of enterprises and markets).

The development of an *idea* into a *project* is not easy. People with excellent ideas who do not know how to assess their economic feasibility are frequently encountered. Other people perceive the potential benefits of a project but lack the ability to present it to loan agencies. When this happens, advisory mechanisms which are easily accessible may be devised (computer programmes even exist which can formalize a project by interacting with the user). Additional action which may be taken in this respect includes the creation of project banks to which large enterprises could contribute their own projects.

Generally speaking, the fact that a project is income-producing does not necessarily mean that it can give rise to an enterprise. The first hurdle to jump is that of *gaining access to financing*. Commercial banks do not usually grant loans to risky initiatives such as the creation of a new enterprise; when they do, they are more interested in the guarantees offered than in the quality of the project. This points to the need to make the legal adjustments required to effect the maximum reduction in the bias against new enterprises which prevails in financial institutions at present. Where appropriate, agencies specializing in the provision of financial resources for the establishment and development of new enterprises also have to be created. This could be done by, for example, maintaining and expanding the line of existing risk capital funds

in industrialized countries whose purpose is to support the creation of innovative enterprises.

A second barrier consists of *the difficulties of putting an enterprise into operation*. At this stage diverse obstacles arise, including that of the high cost of fitting out and operating an enterprise in periods when it is still receiving no income, the difficulties encountered in adapting to commercial procedures and in gaining access to business networks, etc. The instruments used to support new entrepreneurs during this phase which have met with the greatest success are the so-called "incubators of enterprises". These are basically physical and institutional spaces designed to facilitate the action of new firms. They offer low-cost premises, shared office services, access to technical and commercial know-how, help in establishing contact networks and other common services. In the experience of industrialized countries, enterprises which get their start in an "incubator" stand a much better chance of survival than any others (see box IV.4).

An attempt must be made to ensure that all approaches adopted for tackling any of these obstacles give a great deal of consideration to the target groups. This is because programmes to stimulate the creation of enterprises tend to focus on groups with particular characteristics. Mention should be made of policies aimed at promoting the creation of enterprises which make intensive use of technology and whose main participants are young professionals (especially engineers); policies directed towards unemployed workers (creation of self-employment, which adds to the entrepreneurial base and helps to remedy unemployment), and policies designed for young people in general. Reference should also be made to the fact that these incentive initiatives may be focused on a given locality since possibilities for developing enterprises tend to differ from region to region. For this reason, local governments have a large role to perform in this connection.

C. STRENGTHENING PRODUCTION LINKAGES

1. Industrial policy proposals

In view of the strategic criterion of strengthening genuine competitiveness and the policies adopted to achieve this goal through strategic consensus-building between the public and private sectors, it is obvious that economic policy tasks for the 1990s will differ substantially from those in the past. Thus, it is necessary to move away from the administration of a system of protection towards the management of a process of gradual and selective openness and from a policy of relatively indiscriminate import substitution, accompanied by isolated efforts to promote exports, towards the systematic development of industrial exports and efficient import substitution. In relative terms, priority will have to be displaced from public participation in the expansion of production capacity to the establishment of intersectoral linkages, and it will be necessary to strengthen training activities, the creation of enterprises and the development of a technological, marketing and international financing infrastructure and to put high priority on the telecommunications and data processing infrastructure. The tendency for governments to have closer relations with large enterprises must be accompanied by a decisive effort to promote small and medium-scale undertakings, and, last but not least, action will have to be initiated which, while controlling the environmental effects of industrial activity, will support the rational distribution of industrial activity throughout the national territory under a policy of decentralization which seeks to bring about a dynamic balance between the central authority and the various autonomous local levels of government.

This new set of tasks will need to be tackled in a context of financial restriction and institutional weakening of the public sector. This presents three challenges – the challenge of being consistent in selecting areas of government intervention; that of favouring the restructuring of institutions in strategic areas of the public sector; and that of giving high priority to institutional innovation in the management of the production system.

With regard to the first of these challenges, the positive experience of some of the newly industrializing countries as well as that of the traditional industrialized countries suggests three modes of government intervention in sectoral policies – those which apply a criterion of *neutrality*, those which seek *market stimulation* and those which apply strategic selectivity.

Measures based on the principle of *neutrality* are reflected in the provision of support to various branches of industry, enterprises, regions and technologies without favouring any of them in particular. Since they do not affect those areas in which profits are to be made as a result of private-sector decisions, they do not interfere with market dynamics. The information requirements of these measures are few, and the link between the public and the private sectors is simple and transparent. A field in which these measures are applied includes those sectors with a large number of producers, a mature technological model and a modest amount of government support in comparison with the resource commitments of the entrepreneurial sector. The instruments applied under this criterion may be administered separately rather than as part of a whole. In the four areas of policy referred to in connection with the criterion of genuine competitiveness – trade and exchange rates, technology, training and the creation of enterprises – , the largest component consists of measures applied under criteria of neutrality.

Measures for *market stimulation* are aimed at strengthening the market's operation in certain areas. If these measures meet with success, they free the government from any need to intervene directly in solving the problem of market "distortion". While these measures make provision for antitrust activities, their scope is broader than antitrust policy because they also seek to promote the emergence and development of specialized enterprises which service other enterprises and stimulate the market by means of non-profit-making mechanisms and institutions. The criterion of market stimulation is of particular interest in connection with higher education, which often falls behind in offering certain more expensive

specialized programmes at a time when the demand for such programmes is still notably lower than that which would be generated as a result of changes in productive patterns. In the sphere of production, the simulation criterion is especially important in the capital goods sector, where the technological complexity of goods and services, construction deadlines and the importance of post-sale services tend to discourage local supply (see box V.8).

Finally, the criterion of *strategic selectivity* is relevant to those situations where investments cannot be divided and co-ordination is required between sectors and between producers with little possibility to communicate with each other.

When investments are indivisible, that is to say, when the optimal size of an investment is large, the cost of obtaining information through a process of natural selection and leaks is prohibitive. Indivisibility is a general characteristic of infrastructure development and is of the utmost importance in the countries of the region because of their extensive geographical size and the variety and abundance of their natural resources. In addition, some of the countries in the region need to establish scientific, technological and human resource infrastructures to absorb and disseminate new technologies, such as biotechnology and information technologies. Decisions made in this regard must be selective, although some aspects of the technologies of disseminating information policies may remain in the domain of market stimulation and neutrality policies (for example, it may be decided to let the periodicity and sequence of applications of information technologies be determined in the market). Indivisibility is also characterized by many investments in activities which are directly productive, such as processing industries (paper and pulp, cement, steel and other basic metals and some sectors of the chemicals and petrochemicals industry).

When the selectivity criterion is based on intersectoral strategic co-ordination, it is especially relevant to interrelated or complementary activities in which external economies are considerable. Governments should be constantly exploring the viability of such industries taken as a whole and, in the light of a system of spatial rationality compatible with long-term planning for the use of their national

territory, should strive to make preliminary cost/benefit analyses of a wide range of possible combinations with the intention of taking action in those which could be stimulated, in a selective way, in the following period. Activities with possible defects in co-ordination may or may not have taken shape recently. There are many important examples of such activities in Latin America and the Caribbean, including the development of agriculture along with the processing of foods and fibres, the processing of natural resources (see box V.12) and the automotive and components industries.

If progress is to be made in the changing of production patterns in the 1990s, sectoral policy should include a combination of these various modes of intervention – neutrality, market stimulation and strategic selectivity. Of course the relative magnitude and sectoral coverage of each of these approaches will vary in different countries, depending on such factors as the degree of industrial development, the size of the entrepreneurial base, the level of skill and flexibility of the labour force, the soundness of the capital market and the institutional and financial capacity of the State. It is likely, however, that in many countries selective policies are justifiable in a broader range of activities than that which is compatible with the institutional and financial capacity of the State in present circumstances. Consequently, it is hardly advisable to promote selective policies which exceed the scope of the real possibilities for control and execution. Nevertheless, neither should the present fragile institutional and financial capacity of the State be regarded as an exogenous factor. In essence, what is needed is to promote a coherent strategy, first of all for expanding selective policies and, secondly, for ensuring that the public sector has the institutional capacity it needs to apply those selective policies effectively; however, this must be done while attempting to use neutrality and market stimulation policies to the greatest extent possible.

In actual fact, as things now stand, the sectoral policy of the majority of industrialized countries puts priority on micro-electronics. In addition, each country adds certain sectoral priorities (few in number), which generally relate to subsectors in the fields of capital goods, transport equipment and certain widely used inputs.

Regardless of a country's stated doctrine, the selection of sectoral priorities and the extent to which action is disaggregated tend in practice to obey criteria relating to such factors as the degree of organization and capacity to exert pressure of the entrepreneurial associations in each sector; the need to confront difficult situations associated with circumstantial events or factors (emergence of competitors on the international market, sudden change in the price of energy products, impact of technological innovations); the opportunity to generate a significant amount of foreign exchange income when the lead is temporarily taken in the international market; and, finally, the expectation of promising results in a given case, which has the effect of serving as an example for the rest of production.

An interesting illustration of the foregoing relates to the effort now being carried out in Mexico to restructure the textile industry, the automotive sector and agro-industry with support from the World Bank (see box V.13). In each of these sectors, and in close co-ordination with entrepreneurial organizations, action has been taken in areas ranging from the modernization of plants, training, technological research and the regulation of markets to joint marketing schemes.

2. Agriculture and production linkages

Although a particularly dynamic modernization process has been under way in Latin America since the 1960s, the region's

Box V.12

INSTRUMENTS FOR LINKING INDUSTRY WITH THE NATURAL RESOURCES SECTORS

Production activities linked to the processing of natural resources offer exceptional opportunities to the countries of the region to develop industries that provide specialized goods and services. They combine high levels of demand – which often exceed optimal scales of production – with direct production experience and the presence of exacting users who are knowledgeable about the processes and equipment used.

Two key components in the linkage of industrial systems with the natural resources sectors are the capital goods industry – in particular, the manufacture of specialized equipment and machinery – and engineering services. The availability of competitive local services of this type, and their active participation in large-scale investment projects in these sectors, are determining factors in the development of the domestic manufacture of more complex capital goods.

The technological and industrial know-how generated within these production systems – through selective interactions between users and producers – may, under given conditions and if competitiveness is given priority, allow certain segments of the industry to move from the

efficient import substitution stage to the export goods and services with a high technology component.

This is the case, *inter alia*, of the supply industry for copper mining in Chile, which has been generating both the capacity to manufacture new equipment – drilling machinery and parts, service equipment and machinery for loading ore, etc. – and other specialized industrial goods, such as experienced engineering services for projects in this sector, which are fully competitive and have good export prospects. Eight of these producers recently participated in the international fair at Bergbau (Federal Republic of Germany), the largest mining equipment fair in the world.

The above-mentioned experiences were not always the result of specific support measures, but of relatively scattered and spontaneous initiatives. However, recent studies on the subject have revealed the existence of a solid consensus among the various sectoral agents that, if these advances were achievable under difficult conditions, it is perfectly possible to increase the number of successful cases in future, thereby accelerating and strengthening the linkage between copper mining and industry, with an appropriate set of incentives such as those illustrated in the following table.

PROPOSED INSTRUMENTS FOR PROMOTING LINKAGE BETWEEN INDUSTRY AND THE NATURAL RESOURCES SECTORS

OBJECTIVE	INSTRUMENT
<p>To ensure a high level of participation by national engineering services in investment projects in natural resources sectors, especially in the stages related to basic design engineering, project administration and purchasing arrangements.</p>	<ul style="list-style-type: none"> * Giving preference, in the adjudication of tender offers for engineering services to projects in State-controlled enterprises, to bids which, while complying with the basic specifications: -Involve the highest number of national engineering/hours, especially in the stages of <i>basic design engineering, project administration and purchasing arrangements.</i> -Entrust the administration of the project to a national engineering firm, in which foreign engineering services entail only <i>specialized and temporary</i> advisory assistance.
<p>To promote agreements or associations between <i>national</i> capital goods producers and <i>foreign</i> manufacturers in specialized products or lines.</p>	<ul style="list-style-type: none"> * Maintaining the economic criterion of lowest price in the selection of tender offers for engineering services. * Prior announcement that explicit preference (greater weight) will be given to bids which, while fulfilling the required technical specifications and having <i>similar prices</i>, have a higher local content of capital goods purchases by State-owned enterprises.
<p>To ensure effective control over compliance with measures aimed at promoting local purchases.</p>	<ul style="list-style-type: none"> * Assigning a small task group with political backing (ministerial or presidential advisor) to supervise and control compliance with national purchasing policies (collaboration with entities such as industrial linkage centres and capital goods corporations).
<p>To disseminate information on local industrial manufacturing capacity to foreign producers, and to identify opportunities for industrial complementation.</p>	<ul style="list-style-type: none"> * Financial and/or tax incentives to producers of capital goods and industrial goods for purposes of publicity campaigns, promotional travel and participation in international fairs. * Providing training and information to business groups abroad concerning local industrial capacity and the needs of national enterprises (technology, markets, financing), and furnishing them with facts they can use to identify potential export markets.
<p>To promote co-operation and the formation of consortia <i>among local</i> manufacturing firms to initiate the production, where feasible and convenient, of selected, formerly imported items.</p>	<ul style="list-style-type: none"> * Reserving, <i>once only</i>, bid invitations by State-owned enterprises for consortia of local manufacturers (development of suppliers).
<p>To promote collaboration between users and producers of capital goods.</p>	<ul style="list-style-type: none"> * Financial incentives for projects aimed at developing selected capital goods, to be carried out jointly by user enterprises and local producers, and awarded through public bidding.

OBJECTIVE	INSTRUMENT
To establish, in user enterprises, systems for providing incentives for local purchases and collaboration with industry.	* Explicit incentive systems in internal evaluation criteria and career paths of user enterprises; directives from the highest authority of the country to top executives, engineers and buyers; achievement awards, etc.
To finance the purchase of national capital goods on terms similar to those granted by foreign suppliers.	* Financing fund with flexible terms to support purchases of capital goods manufactured in the country, including, <i>inter alia</i> : -Lines of credit to promote the purchase of capital goods, channeled through commercial banks and guaranteed by the purchase order itself, backed by the State. -Temporary, transferable subsidy to leasing operations covering the acquisition of national capital goods.
To improve technical and marketing information on purchases by State-owned enterprises.	Complementing and strengthening the functions of the supplier development departments of public and private enterprises and industrial linkage organizations in matters related to: -Technical advisory assistance to suppliers and appropriate follow-up. -Establishment of personal contacts and organization of periodic meetings of users, designers and suppliers. -Signing of agreements with suppliers for the standardization of parts and equipment, and import substitution studies.
Technical and management training (basic and advanced).	* Subsidies or co-financing of programmes for: - Technical and vocational training (entry-level, mid-management, specialists in machine design). - Advanced training and preparation of professionals and managers in product design and marketing, quality control and technology management. * Partial subvention of investments and staff training in centres for experimentation with new production technologies (design, manufacture, etc.), co-administered with business associations.

agricultural sector differs from those agricultural sectors which have met with the most success in countries in other regions in two important ways: its links with industry at the national level and services are weak, and there is a marked concentration on a limited number of goods and geographical areas and on a certain kind of producer. There are disparities

between the regions of a country, and there is also a bimodal agrarian structure made up of a small sector of modern capitalistic enterprises geared for export and for the most dynamic domestic markets and a vast, markedly differentiated peasant sector devoted primarily to producing basic commodities for domestic consumption. In addition, as a result of the type

of technology used, the migratory and temporary nature of a labour force lacking in other employment options has grown more marked.

a) *Changes in agricultural and rural policy*

Much of what has been said regarding changes in respect of industry is also true for the

system of production as a whole. However, some changes are specific to the rural sector, including, in particular, efforts to overcome the urban/industrial bias as regards economic investment and social expenditure, while at the same time upgrading the rural parts of a country; attempts to avoid concentrating investment on large hydraulic works, by placing emphasis on maintenance and extension and,

Box V.13

THE EXPORT BOOM IN THE MEXICAN MOTOR VEHICLE INDUSTRY

The motor vehicle industry accounted for a large share of the increase in non-petroleum exports in the 1980s. This sector, which had traditionally run deficits, registered a trade surplus of over US\$1 billion in 1989, with its exports representing approximately 28% of the country's total exports, excluding petroleum. The main export items of this sector are fully assembled automobiles and automobile engines. In 1988 these two categories together – in similar proportions – accounted for approximately 80% of the motor vehicle industry's total exports, valued at US\$3.5 billion.

This phenomenon was not a flash in the pan but rather the result of a combination of policies in effect since the 1970s, of specific macroeconomic conditions, and of changes that had taken place in the motor vehicle industry worldwide.

At the sectoral level, the 1977 Decree for the Promotion of the Motor Vehicle Industry, reinforced in 1983 by the decree designed to rationalize it, marked a change in motor vehicle policy. Concern for aspects of production, employment and production linkages gave way to concern for the trade balance of the sector and in particular for the development of exports, in view of the increasing balance-of-payments pressures in the Mexican economy. The new motor vehicle policy sought to modernize the productive structure of the sector (traditionally geared to the domestic market) and improve its

efficiency to make it competitive at the international level, even at the price of partially sacrificing other objectives, such as the participation of national capital and the requirement of a minimum national content in production.

Stimulated by that policy and by the opportunities opened up by the restructuring of the world motor vehicle industry, towards the end of the 1970s the foreign enterprises operating in the country invested in a new generation of production and assembly plants using modern technologies and basically oriented towards exports. These plants were the basis of the export boom in the motor vehicle sector from the 1980s onward, when the investments in the sector matured. The motor vehicle industry was thus able to overcome the effects of the recession (contraction of the domestic market and sharp devaluation of the national currency) and help to mitigate the severe external constraints.

The case of the motor vehicle industry in Mexico illustrates the importance of harmonizing sectoral policies with macroeconomic policy in order to successfully restructure industries considered as having priority. It also illustrates the need for flexible sectoral policies that can adjust to macroeconomic changes and make it possible to seize the opportunities offered by the evolution of the respective industry at the world level.

Year	Context/macro-economic policy	Motor vehicle policy	Situation of motor vehicle industry
1976	Recession and balance-of-payments crisis	Change of priorities in motor vehicle policy	- Local industry oriented towards domestic market; technology obsolete; growing external deficit

Year	Context/macro-economic policy	Motor vehicle policy	Situation of motor vehicle industry
1977	Oil boom - Reactivation - Revaluation of the Mexican peso - Increase in the trade (non-oil) and public deficits	<i>Decree of 1977</i> - Promotion of exports - National integration	- Restructuring of world motor vehicle industry - Changes in demand and in location of production units - Investment in new plants for export production - Increase in the production and trade deficit of the sector
1981	External restrictions		
1982	Stagflation - Contraction of domestic market		
1983	- Devaluation - Liberalization of imports	<i>Decree of 1983</i> - Rationalization of the industry - Strengthening of export mentality among manufacturers - easing of requirements regarding national content in return for greater exports	- Trade surplus (since 1982) - Modern export sector - Traditional sector geared to domestic market - Denationalization (100% foreign capital)

especially, on the development of smaller works and the integral management of water resources; efforts to strengthen the links between sectors and the consolidation of efficient production, transport and marketing logistics in which narrow compartmentalization of the sector is avoided; and the regularization of legitimate titles to land in such a way as to provide them with stability and guarantees and do away with persistent conflicts and unstable landholdings. These activities also involve an attempt to shift the emphasis from large agricultural enterprises to the strengthening and the modernization of small farming, except in cases where there is no demographic pressure on the land and where the nature of the sector calls for the formation of large enterprises, as happens in the case of forest exploitation and a few permanent crops.

b) *Means of intervention and price policy*

With respect to means of government intervention, the criterion of neutrality should prevail in government relations with modern commercial agriculture, and the criterion of strategic selectivity is particularly appropriate for strengthening agriculture's links with industry and services.

There is no technical solution as regards the policy of agriculture prices which is at one and the same time satisfactory to consumers, producers, tax interests and importers. On the one hand, producers and consumers have conflicting interests; on the other, a choice must be made between favouring the farmers of a country or receiving cheaper products with better financing from abroad. In addition, in a situation of inflation and crisis, it is in the

interest of fiscal authorities to resist granting subsidies to consumers and producers. Pressure to liberalize farm prices arise precisely when an urgent fiscal situation makes it very difficult to sustain subsidies.

Society cannot, however, at least in the short term, avoid the cost burden of a price policy. For as long as changes are being effected in production patterns in the long term, the most that can be done is to direct the transfer of those burdens to the fiscal authorities, the producers or the consumers. In other words, conflicting goals reflect underlying conflicts in values. When that happens, solutions are usually intermediate, of a political nature and reflect the dynamic interplay between interests and objectives. Market solutions are extreme in that they imply a preference for external over domestic supply, thereby sacrificing subsistence agriculture and subjecting the country concerned to fluctuating prices on international markets. Economic objectives are no less conflictive than the various interest groups involved. Opposition arises between the aims of fighting inflation, adjusting public accounts and improving the balance-of-payments situation, on the one hand, and increasing employment and developing domestic capacity to supply the market (not to mention other related goals such as that of national self-sufficiency or food security), on the other.

Finally, it should be noted that in agricultural sectors with a high degree of heterogeneity, such as those in the majority of the countries of the region, policies designed to protect peasant production by controlling the final prices of peasant commodities generate disproportionately high rents in modern agriculture. Consequently, differential incentive policies in the form of credit, inputs of technical assistance or anything else, may prove more efficient as a means of strengthening peasant farming. In general, when a certain result can be achieved by applying alternative measures with limited (or localized) effects, recourse should be had to those alternatives rather than to the management of the prices of final products.

c) *Production linkages*

The strengthening of the agriculture's links with industry and services is a key part of the proposed strategy to effect changes in production patterns. As shown by a variety of

practical experiences in different countries of the region, the industrial component of farm-based chains or complexes has an enormous potential for introducing technical progress in the agricultural sector. This is true both of industries which are linked to agriculture by supplying it with inputs and means of production (the so-called semi-agricultural agro-industries), and of those which receive inputs from agriculture for use in processing (processing agro-industries). Indeed, in the absence of a strategy formulated for the explicit purpose of making the industrial core the dynamic element in agricultural productivity, enterprises supplying seed, fertilizers or machinery and various agro-industries engaged in the processing of agricultural inputs play this role spontaneously under the most diverse forms of ownership. Moreover, processing agro-industries have frequently helped to spread the adoption of certain aspects of "industrial logic" in the agricultural sector by imposing on their own sources of supply a certain cadence of operation, programmed volumes of production and more homogeneous quality standards (see box IV.12).

The lack of explicit orientation of agricultural policy in the sense indicated above results in poor use of the processing potential of agro-industry. In addition, it has occasionally resulted in a situation where technological patterns in semi-agricultural agro-industry (in particular) are not sufficiently consistent with allocations of available resources or where the benefits of linkages (especially in the case of processing agro-industries) are not equitably distributed.

Moreover, reaching international levels of competitiveness requires more than high productivity on the part of agriculture and agro-industrial processing. Inefficiency or insufficiency of infrastructure and services (transport, storage, cold storage networks, telecommunications) and bureaucratic hitches and lack of timely information on markets can cause a country to end up behind countries with fewer natural advantages and lower productivity in the primary commodity sector. On the other hand, once the use of an effective set of logistics in the organization of various activities which are on the middle ground between primary production and final sale has

become established in respect of a certain group of products, it becomes an asset, the advantages of which in many cases outweigh those of the particular commodities in respect of which it is used, and which may be adapted for a wide range of other commodities. This just reaffirms the systemic nature of competitiveness and is one more proof that a policy to develop competitiveness must necessarily extend beyond narrow sectoral boundaries.

d) *Linkages between agro-industry and small-scale farming*

Special mention must be made of the use of the links between agro-industry and small-scale family farming as a means of modernizing the latter. There are various reasons why these links should have this effect, the first of them being that in the majority of countries of the region, a very substantial proportion of the labour force is engaged in this type of farming. Secondly, small-scale agriculture is a sector which is to a large extent excluded from the benefits of agricultural modernization, and this has helped to increase rural poverty and has accelerated migration towards the cities. Thirdly, within the framework of the constraints which are likely to affect development in the 1990s, it is important to note that family-owned and operated farms employ more labour and use more imported inputs per unit produced than other agricultural activity. Finally, family farms can advantageously produce a broad range of crops for the domestic market or for export, including garden vegetables, commodities used in regional dishes for ethnic minorities living in the developed countries, aromatic plants, flowers and some highly specialized products used in the pharmaceutical or biotechnological industries, whose production involves no significant economies of scale.

In cases where there is no demographic pressure on land or where significant economies of scale do exist, the promotion of the development of companies of a size to foster efficient operation must be accompanied by legislative measures which protect the labour rights of the workers employed in them.

In other types of manufacturing, greater flexibility of a wide range of agro-industries as regards efficient scales of production enables their size to be more or less proportionate to the size and resources of the rural area from

which their supplies are obtained. Flexibility of scale also permits the deconcentration of processing agro-industries so that they can play their role as the pioneers of technical progress in small-scale agriculture.

Linkages between agro-industry and family farming enable capital-intensive processes to be integrated with other processes which are more labour-intensive, and also with some phases of agro-industrial activity as such, especially where certain agricultural activities have been combined. When such agricultural activities are integrated into a process of industrial change, they lead to greater labour intensity per hectare. This presupposes that public policy include incentives (fiscal, credit, price and others) which encourage processing agro-industry to take on the tasks of training producers, adapting technology and providing technical and financial assistance to small farmers during the period of transition before the new system has been established as a source of regular and stable supply (see box V.14).

e) *Factors supporting sectoral linkages*

The links between agro-industry and small-scale farming depend not only on specific incentives but also on certain changes in the institutional framework and in the orientation of agro-rural investment.

With regard to the institutional framework, it must be borne in mind that agriculture, by its very nature, is dependent on the inherent characteristics of the place in which it is practised. For this reason, an effective policy must be capable of responding to the different problems of the various regions and diverse types of producers, which is difficult to do when the public apparatus is characterized by an insufficient number of poorly qualified personnel, who are badly paid, are concentrated in administrative centres and have few resources to maintain systematic relations with producers.

When problems which slow the growth of production and productivity (which usually differ in each microregion) are tackled, the need arises to decentralize the decision-making capacity of the public apparatus; to deconcentrate resources in accordance with the structure of decentralization; to integrate complementary tasks at the local level, which are at present very dispersed, and to create, also

at the local level, bodies responsible for consensus-building among organizations representing various types of producers, both among themselves and with public entities. In such a framework, it would appear more feasible to go beyond the narrow sectoral approach used in devising agricultural policy, to take advantage of the potential capacity of agro-industry for giving impetus to technical progress in agricultural activities and to seek formulas which ensure that the benefits obtained from linkages will be equitably distributed.

In order to be able to benefit more at local level from the shortage of skilled technicians, who are of vital importance in what might be

called the logistics of production and marketing, it would be useful to establish a broad network of information and communications linking local bodies to the regional and national centres where such resources tend to be concentrated. However, they cannot be mobilized unless action has been taken to strengthen or create grass-roots organizations and to eliminate the dangers of starvation which keep the peasantry cultivating subsistence commodities.

An investment policy should respond to the need to reverse the urban bias and to reorient the investment earmarked for the agro-rural sector in the directions indicated above, taking into account their consistency with

Box V.14

GUATEMALA: NON-TRADITIONAL EXPORTS FROM AN AREA OF SMALL FARMS

Towards the middle of 1970, the transnational corporation Hannover Brands, Inc., acquired the frozen-food enterprise Alimentos Congelados (ALCO) S.A., founded five years earlier, and began producing green vegetables for the United States market. In a first phase, ALCO S.A. began to produce the vegetables itself on acquired and rented land. However, in view of the lack of economies of scale in this production, the enterprise opted to contract medium-sized farmers (farms from 20 to 40 hectares).

The existence of a peasant sector with a high level of co-operative organization was useful for this strategy. It was also helped by the development programmes of a non-governmental Swiss organization, which, together with providing food aid, literacy courses and assistance in reconstruction projects, had begun to implement agricultural improvement programmes, among them the production of green vegetables. These factors facilitated the rise of a producers' co-operative, the Cooperativa Cuatro Pinos, which extended its activities to six indigenous communities and became one of the main suppliers of ALCO S.A. Stimulated by this activity and other complementary benefits, the Co-operative grew rapidly, so that by the second half of the 1980s it had close to 1 200 members and had significantly increased the area sown with green vegetables for export.

The Co-operative set up a substantial infrastructure for cold storage and packing. It

also developed its own export capacity (not only to the United States but also to Europe, where it sent 20% of its exportable production), appreciably raising the levels of employment, productivity, income and nutrition of the co-operative members and their families. Thus, net income (sales minus variable costs) per hectare, for the main crop among the new ones, is five times higher than income from maize; and the income per day worked is twice as much as that for maize and 60% higher than that from green vegetables grown for the domestic market. Moreover, the yields of maize and beans of the co-operative members are 30% higher than those of similar producers who do not grow for export, suggesting technological progress in traditional crops under the influence of what was learned from growing for export. Higher employment in the family unit has reduced both migration and employment off the farmstead.

In summary, the case of ALCO S.A. and the Cooperativa Cuatro Pinos suggests that the linkage between agro-industry and small-scale agriculture for export makes it possible to compete with other forms of productive organization, particularly if the small producers are organized and have a high degree of economic and cultural homogeneity. Moreover, replacing traditional products for home consumption with others with more value added, in determinate social and institutional contexts, helps to raise levels of employment, productivity, income and nutrition.

macroeconomic policy and other sectoral requirements. Ways should be sought for making use, at the local level, of the underemployed labour force and of the potential savings that would entail to promote, together with public investment, the development of small-scale hydrological works and access roads to the interior which would help to raise the productivity of certain firms or localities. In carrying out works of this kind, it is particularly appropriate to proceed with the active participation of the local community, at both the planning and the execution stages.

Investments in the expansion of the telecommunications network are another basic component of modernization, because of their key role in marketing activities and also because of their potential usefulness in tasks relating to the dissemination of technology.

3. Natural resources and linkages with production

a) Towards sustainable development

Latin America and the Caribbean possess a per capita endowment of natural resources far larger than that of the other regions of the developing world. However, in recent times this has not meant that their growth rates have been higher.

It thus becomes necessary to rethink the contribution made by natural resources to the development of the region and to consider the concept of sustainable development, that is, development comprising a blend of the objectives of economic growth, social equity and environmental conservation. At present, that third objective can hardly be overlooked. The incorporation of the environmental variable in a development strategy can no longer be ignored because of the social demand for a healthy environment, the growing evidence of exhaustion or overexploitation of certain resources and the constraints imposed by the adverse effects of certain environmental processes set into motion by the developed countries to aid both their production and their imports.

A policy of rational exploitation of the natural resources of the region for the next decade should provide for the elimination of the weaknesses of the past and will call for progress in various areas. Natural resources cannot be

made subject to a scheme of maximum exploitation in the short term but must instead be given careful management in which the rate of exploitation of non-renewable resources is evaluated on the basis of their availability (supply) and their prospects on the markets (demand) and attention is paid to the maintenance of the reproductive capacity of renewable resources in the long term. Nor can the natural resources sector be perceived as a provider of income which can be transferred to other sectors. Instead, consideration must be given to the structuring of production networks spatially linked to industry and services in particular, in such a way that greater value is attached to resources and there is a process of technological and organizational change which strengthens their competitiveness. Comparative advantages, which at one time were regarded as immutable and tended to conceal tremendous inefficiency in production, must give rise to processes of productive rationalization and also to activities leading to product and process innovation if the menaces of new synthetics and new forms of exploitation which make intensive use of technology are to be challenged. The piecemeal approach to the management and conservation of resources must give way to a system of integral management, such as the management of river basins or of specific ecosystems. Extensive forms of exploitation which produce goods with little value added must be combined with innovative activities and product design adapted to the changing profiles of demand of world markets. As for the State, it should transfer its concern from the supervision of the exploitation, development and management of natural resources and turn to their recovery, conservation and control, with participation and inputs from the users themselves.

b) Criteria governing State intervention

It must be borne in mind that the sphere of natural resources includes another government activity which would be hard to replace, namely, the regulation of the use of those resources and, in particular, of renewable resources when the mechanism for the participation of the users themselves in conservation is not sufficient.

In defining policy lines, consideration must be given to the type of user, the renewable or non-renewable nature of the resources involved, the structure of the market (a pivotal

consideration when the regulation of externalities is involved) and the system of land holding in effect.

Market incentive policies provide information on the present situation and future prospects of the supply and demand of natural resources, the establishment of marketing consortia to facilitate the sale of goods produced by small enterprises, the promotion of the development of enterprises specializing in the provision of infrastructure services, etc.

The existence of investment indivisibilities is particularly important in the case of natural resources. In sectors which use such resources, and in mining and the energy sector in particular, the initiation of new activities is known to require very large amounts of investments associated with prospecting, technological research, training and other activities in which consideration must be given not only to the use and conservation of resources but also to the development of the region in which the action is carried out.

The need for intersectoral co-ordination is also of considerable significance. This may be seen particularly in cases where, in order to maintain an activity in which a national resource is processed, a stable supply of that resource must be ensured (as happens in the operation of wood pulp plants associated with forest plantations). The same happens when the development or expansion of an extractive activity is justified only if potential national buyers of the product adjust their investments and technology to absorb the increased production of the natural resource. This criterion is particularly applicable to the development of road and transport infrastructure needed for the production and marketing of raw materials – fields in which the government should give impetus to the co-ordination of initiatives and should also make a fair charge for the use of the works.

c) Policies for regulating the use of natural resources

Another area of special importance in the work of the State is that of promoting the sustained use of natural resources and avoiding pollution. The application by the State of policies for maintaining an adequate rate of reproduction of renewable natural resources in

the long term is of decisive importance, since private agents working on their own may find it difficult to see that the resources used in their work are being overexploited. In meeting this obligation, the State must take responsibility for various tasks, such as that of collecting sufficient up-to-date information concerning the resource endowment and its development, ensuring the availability of scientific knowledge concerning the ecological behaviour of populations and defining regulatory instruments which favour or guarantee the recovery and conservation of a given resource and also ensure that sustainable levels of profit can be made out of it. A wide range of combinations of measures for regulating the operation of markets exists, as well as other measures which entail either quantitative restrictions or prohibitions. In addition, governments must provide users with incentives to take responsibility for a system of checks and monitoring to ensure that the regulations are respected. This type of mixed user/State monitoring system is probably even more important in activities which involve a great number of producers (see box V.15).

In order to deal with pollution, there is need to adopt policies of a regulatory nature ("he who pollutes, pays"), blanket restrictions or incentives for users to reduce pollution and to include an effort to decrease pollutants in their concept of efficiency. Such policies may result in certain innovations in the production process involving the more effective use of inputs and waste products or the installation of facilities to treat or eliminate undesirable by-products.

Although the market cannot by itself create sufficient incentives to prevent the overexploitation of natural resources or pollution, certain regulatory mechanisms are highly dependent on the market. These include, for example, taxes on the emission of pollutants, fishing licenses, afforestation subsidies and tolls on the urban transport of passengers. However, in cases of extreme environmental deterioration or deterioration associated with easily identifiable activities, a more effective procedure may be direct intervention by the State and the users of a public facility or an explicit agreement negotiated with the agent responsible for destruction or pollution or between the users themselves, who may be able

to compromise where the environment is concerned.

There are even cases where the recycling of wastes generates products of such value that they themselves are worth the investment. This is a challenging area for scientific and

technological research at the national level and even for the development of products.

Another important field of State action is that of the partial tapping-off by the State of the earnings generated by natural resources. This area is especially relevant to countries which regard such resources as part of the national

Box V.15

THE INSUFFICIENCY OF MARKET MECHANISMS: THE CASE OF NATURAL RESOURCE MANAGEMENT IN CHILE

The international position of the Chilean economy largely depends on its utilization of the comparative advantages it derives from the country's natural resources in such areas as mining, marine products and forestry. Market mechanisms have been heavily relied upon for the development of these sectors on the grounds that this would optimize the allocation of resources in these activities. Although in some cases the presence of negative externalities has been detected, their importance has been played down or, when regulations have been instituted, they have ultimately proved to be ineffective, primarily because consistent enforcement has been lacking. One of the factors underlying this course of action has been the fear that any sort of interference – whether in the form of regulatory measures or user charges – might lead to a decrease in exports.

One such negative externality in the mining sector (a large proportion of which is represented by copper mining) that is of particular importance is the problem of environmental pollution from gases (sulphur dioxide (SO₂), nitrogen oxides and gases having a high arsenic content), fluids and solids. Indeed, in the case of air pollution, 12.5 times more sulphur dioxide is emitted per product unit in Chile than in the United States, and this is further aggravated by the fact that these emissions are geographically concentrated in such a way that they have a very severe effect on certain urban centres (especially in the case of Chuquicamata). Water and soil pollution have also had serious consequences. Examples include the degradation of the soil in the vicinity of the mouth of the Aconcagua River, which was the most fertile area in the country up until a few decades ago but is now no longer being farmed, and the impact of marine pollution on Mejillones and Coquimbo, which has led to the disappearance of inshore fishing in these ports.

Although the fishmeal industry does produce some pollution, the chief problem in the fishery

sector is the over-exploitation of a variety of species. The threat of extinction is a very real one in the case of some marine species, especially demersal crustaceans (the red shrimp has now practically disappeared), some mollusks such as abalone, and other benthic species such as the sea urchin. The possibility that some of the deep-sea fishing grounds, which are the main supplier of the fishmeal industry, may soon be depleted is at present a topic of widespread debate.

The failure to regulate fishery activities effectively is at the root of this problem. In those instances where regulations have been instituted (quotas, closed seasons), the funds needed for their enforcement have been lacking. This is compounded by the sharp decline in research relating to this sector (i.e., research in marine biology, ecology and resource prospecting), which is essential to the formulation of an effective set of regulations. There have been some encouraging signs in recent years, however. Artificial restocking of endangered species has begun, and the framing of legislation which would include provisions designed to promote the conservation of marine resources has been studied and is now under discussion.

In the forestry sector, native forests came to be regarded as a valuable source of exports, without due consideration of the irreparable damage caused by erosion, sedimentation and the loss of biological diversity. Consequently, clearcutting was authorized as a means of fostering timber exports. Authorization by State agencies must now be obtained before native forests can be logged, but, as in the case of the fishery sector, a shortage of funding hampers enforcement. A final point which should be mentioned is that in order to promote exports, maximum load restrictions on logging trucks were lifted, resulting in severe damage to the country's roadways. The costs of this damage were incorporated into the reconstruction of these roadways.

wealth. In such cases, it is important to establish policies which as well as tapping-off part of the income generated by the exploitation of a resource, provide incentives for developing the activity in question and conserving the resources on which it is based. This may call for measures which can be adapted to the differences inherent in each sector.

Within the framework of an environmental conservation policy which meets the needs of industrial restructuring and technological innovation, the State will be called upon to play a leading role in various areas, including the design of plans and strategies for managing and conserving the physical environment and the co-ordination of each of their components with other government policies; co-ordination and planning of basic studies and inventories on environmental resources and sources of pollution and the execution of programmes for keeping track of the natural heritage of the country concerned; the management, recovery and conservation of natural resources at the level of river basins, national parks, nature reserves and other integrated ecosystems; the reframing of the legal code regarding the use and conservation of natural resources in accordance with technological advances and recent scientific discoveries, and the planning and building of an infrastructure which makes it possible to monitor environmental performance, improve the scientific and technological base and promote self-management of the use of resources.

4. Basic support services and production linkages

Changes in production patterns will require support by a number of basic services, including those in the fields of electric power, water, communications and transport. In order to illustrate the most appropriate types of policies for ensuring such support, the freight transport sector has been selected and some aspects of the links it maintains with the various branches of production have been identified. Some aspects of services to producers and of telecommunications are also noted.

a) Freight transport

Freight transport in Latin America has four characteristics in common with that in the rest of the world.

The first of these characteristics is that freight transport is a cost which must be incurred if inputs and products are to be made available in places where there is a demand for them. In the last analysis, the smaller the amount of transport services used, the more resources will be available for use in the production of other goods and services.

The second characteristic is that the demand on the transport sector is derived from the demand for the goods transported. For this reason, both the transport services available and the infrastructure which makes it possible to supply them reflect the history and present situation of production sectors and population centres in terms both of the composition of the goods produced and of the location of the places where they are produced and consumed.

The third characteristic is that where investments in transport infrastructure are concerned, the principle of indivisibility is frequently important. For this reason, it is the State which usually takes responsibility for making directly the large investments in the case of highway, port and airport construction and directly or indirectly need in the case of railways.

Finally, the fourth characteristic is that the transport sector, for historical reasons related primarily to the monopoly which railways enjoyed in the past century and the beginning of this century, is very much subject to State regulation. Although the initial justification for this regulation was the need to protect the users, it now serves primarily to make life easier for transport enterprises, both public and private, and to keep wages significantly higher than in other sectors or to maintain a level of employment which is much higher than required.

In many countries of the region, the transport infrastructure and services are based on a development model of the past, and consist, in general, of the following elements:

i) A transport system which links a country's large cities (its major consumption and industrial production centres) with the national sources of food and raw materials, which are shipped by slow, traditional routes;

ii) Railways and highways which link more or less antiquated ports to major urban centres

and are used to transport raw materials needed by industries located in those centres, as well as consumer goods, some of them transported by sea, to meet the demands of the population of the centres;

iii) Railways (or sometimes highways) which link places where traditional export commodities are produced with their ports of exit; frequently, both the ports and the land transport vehicles used are capable of handling only one specific commodity;

iv) National merchant marine fleets made up of traditional types of general cargo ships, with few special cargo and container vessels;

v) Means of transport which operate independently and in isolation, without any real integrated transport systems.

This kind of freight transport structure does not adequately meet new development needs, and for that reason policies appropriate to the 1990s must be different from those practiced in the past, since they will have to bring about change in the following directions:

i) from a situation in which transport is regarded from a physical perspective towards an essentially economic and financial approach;

ii) from a lack of trust in the effectiveness of the market mechanisms in the sector towards a willingness to use those mechanisms in cases where sufficiently competitive conditions exist or may be created;

iii) from concentration on infrastructure towards concern for adaptation in terms of the quality and cost of the transport services required for development;

iv) from concern to expand the infrastructure, which has frequently grown far beyond the size needed to satisfy current needs, towards an effort to make better use of existing infrastructure;

v) from isolated action as regards the different means of transport towards the creation of true transport systems;

vi) from transport services designed to promote the integration of the country concerned towards the development of services which promote the competitiveness of that country's exports;

vii) from a situation in which the objective in expanding a country's merchant fleet was considered to be that of generating foreign currency, towards a situation in which it is sought to give support to shipowners of the country whose activities serve the needs of national trade; and

viii) from a sector dominated by concentric circles of monopolistic enterprises and labour groups protected by the State, towards a dynamic sector displaying continual technological innovation and a high degree of professionalism.

Consideration must, however, be given to the fact that the difficulties normally encountered when new policies are adopted become more serious in the case of freight transport in the region because of the tremendous deterioration in the infrastructure used. Thus, because of the debt crisis it has been impossible to maintain the existing infrastructure. In many countries the national infrastructure in this area is already dangerously damaged, and unless a substantial effort is made, much of it will have to be reconstructed at a high economic cost.

Maintenance of existing infrastructure therefore has the highest priority. If the resources available are not sufficient to simultaneously cover the creation of priority public works, those new works will have to be sacrificed. Fortunately, the multilateral finance agencies have assigned high priority to the maintenance of infrastructure, and there is a possibility of gaining access to new resources for this purpose.

The modes of government intervention referred to earlier – neutrality, market stimulation and strategic selectivity – are also applicable to freight transport. Nevertheless, owing to the long tradition of very strict State regulation of all the means of transport in most of the countries of the region, there is little likelihood of generalized liberalization in the short term. Indeed, such a change will probably be opposed by the regulated transport companies themselves and by their workers. However, in general, increased competition seems necessary if the freight transport sector is to make a real contribution to the transformation and modernization of the goods-producing sectors.

The criterion of strategic selectivity is especially appropriate in connection with meeting the main challenge of the 1990s, which is the creation, as an integral part of the policies adopted to promote the production and export of industrial, agricultural and mineral goods, of transport corridors between production centres and ports and among population centres of neighbouring countries, and the establishment of distribution chains for specific goods.

In the past, government policies affecting freight transport, as regards both infrastructure and the regulation of services, usually treated each means of transport separately – so much so, in fact, that different ministries for different means of transport were often set up and are still to be seen. In the 1990s, however, the relations between different means of transport should receive preferential attention by the State in order to reduce to the minimum the total cost of transport from point of origin to destination. The adoption of this approach will call for extensive changes in the institutional structure of the transport sector.

The criterion of strategic selectivity may also be used in the identification of the infrastructural works which should be built. The point of departure in analysing the need for new works should be to determine which services users really need, since the building of infrastructure is justifiable only on the basis of the benefits which those services generate. With some notable exceptions, the region is reasonably well endowed with infrastructure (although this is dilapidated, as mentioned above) for meeting the challenges of the 1990s.

In trying to determine what services are required and what the infrastructural needs really are, formulas should be sought for using the existing infrastructure more efficiently, especially through the adoption of institutional innovations. Experience has proved that measures such as the introduction of three shifts in ports, the establishment of lower tolls at night than during the day for trucks and the co-ordination of flights may significantly increase existing capacity. Although this kind of innovation may be resisted by those affected, compensating them for the loss or curtailment of their acquired rights may in the long run prove less costly than investing in the building of new infrastructure (see box V.16).

The highest priority (in the transport sector) has traditionally been assigned to infrastructure works, since by doing so bottlenecks which are in fact due to failure to foresee future demand in time can be overcome. With the competition which exists today, however, more physical access is not enough; international competitiveness requires not only access, but also access on terms which compare with those applicable to suppliers of the same goods in other regions, who often enjoy transport services which are more advantageous in terms of cost, frequency of service and quality than those available in Latin America and the Caribbean. For this reason, the methods used in evaluating the transport infrastructure should base their approach on transport corridors and distribution chains and take full account of national objectives and, in particular, international competitiveness.

Special mention should be made of the changes in production pattern which must be made in respect of the region's railways and ports. The share the financial losses of railways (which in some cases amount to hundreds of millions of dollars a year) have in the fiscal deficits of many countries of Latin America and the Caribbean is common knowledge. What may be even more important, however, is the fact that those same countries are losing the contribution which railways could make to economic and social development if they constituted an integral part of their country's transport system.

The problems of railways are by no means new. They may be said to have begun when highways started to be built, and to have intensified after the Second World War when highway transport began to grow at a rapid rate, which meant that the railways lost the land transport monopoly they once enjoyed. Growing competition from trucks, the greater flexibility offered by highway transport and the failure of railways to adapt to the new circumstances are all to some extent responsible for their gradual loss in competitiveness and hence for their having lost the possibility of serving the types of traffic which they should have retained. All these factors accentuated the financial difficulties of this means of transport.

In addition to experiencing increasing problems with competition, the railways failed

to update their technology and methods of operation and administration as rapidly as they should have. Although some railways in the region made large investments, many of which were supported by multilateral financial agencies, investments unaccompanied by changes in management are not enough to solve problems. Likewise, the use of rail rates as a tool to contain inflation and support certain economic activities did a tremendous amount to erode the entrepreneurial capacity of railways.

To reverse this process, alternative courses of action must be identified, their effects must be evaluated and policies must be adopted in which

the criterion of strategic selectivity is applied. The first step is to decide whether or not the country in question should continue to maintain rail services. If the reply to that question is positive, it is necessary to identify those rail routes and services that will form part of the transport corridors and distribution chains of the future, on the basis of national projects relating to changes in production patterns in the industrial, agricultural and natural resources sectors. Rail routes and services which will have no part in the new transport systems must be abandoned, and investment and management efforts must be focused on the adaptation of services to user needs. Once the railways have been thoroughly overhauled, government

Box V.16

CHILE: COST REDUCTION AND PORT MANAGEMENT

Can it be possible that loading roundwood on ships costs more than the entire previous process of planting the trees, caring for them, cutting them and preparing them for export?

In Chilean ports, the answer would have been affirmative up to 1981. In that year legislation was adopted which put an end to the monopoly of cargo handling on land and on ships, as well as ending the distinction between the two activities. Previously, the ports depended on 10 port unions. The number of workers needed for each job was stipulated, as were the wages, as a function of the kinds of cargo handled, and the wages paid were very high compared with the rest of the Chilean wage structure.

In order to reduce the social cost involved in eliminating the monopoly and opening up port jobs to all workers, subject only to requirements as to minimum age and adequate physical capacity, the existing port workers were granted compensation totalling US\$30 million. Three categories of port workers were set up: permanent employees, who receive their wage regardless of whether or not there are ships in port; workers on special contracts, who are paid on a daily basis according to the volume of cargo received, but are guaranteed a minimum of four shifts per month; and casual workers, who have no guarantee as regards their minimum income. The Chilean Port Corporation (EMPORCHI), which is the public sector port authority, gradually reduced its monopoly of cargo handling on land so that private stevedoring companies

could take over some of those functions. As a result, competition was created among the stevedoring companies in each port and a third shift was introduced; the daily port working hours increased from 11.5 to 22.5 hours, and costly payments of overtime were eliminated.

Apart from changes in the warehouses which made it possible to create open-air storage space for containers, no changes were made in the infrastructure of Chilean ports until 1985, when a private company installed a multi-use crane in the port of Valparaíso. Productivity in the handling of fruit in that port increased from 2 060 crates per hour (figures for 1978-1979) to 6 500 per hour (1985-1986), and the turnaround time for ships in the port was reduced from 129 to 40 hours while the unit costs per crate went down from 54 to 26 U.S. cents. The price for loading roundwood went down from US\$6.47 to US\$3.11 per cubic metre between 1980 and 1986. During the 1983-1984 fruit export season, a total of 34 million crates were loaded in Valparaíso, but by 1987-1988 the figure had risen to 65 million. The Chilean Maritime Trade Chamber has estimated that the total annual savings thanks to these institutional reforms amount to over US\$75 million.

The experience of the Chilean ports indicates that the main obstacle to be overcome is not so much the lack of modern technology or financing for investments, but rather the unsuitable methods of management of the port system.

policy should be based on the criterion of market stimulation and even on that of subsidizing the maintenance of the rail infrastructure, just as in the case of the highway infrastructure, since, owing to the large economies of density in rail traffic, the market, when left to its own devices, will not necessarily produce an efficient distribution of traffic among the various means of transport.

b) *Ports*

Although both the ports and the railways in the region are usually State enterprises, the context in which ports carry out their activities is radically different from that in which railways carry out theirs since ports, with few exceptions, encounter little competition and should have no difficulty covering their operating costs. In the development model which is based on substitutive industrialization, the efficiency of ports was of little importance; countries had markets they could be relatively sure of for their traditional exports, which in many cases had their own specialized ports, and the impact of port inefficiency on imports was reflected only in greater protection for national production. In these circumstances, various labour and operational practices which now have a serious effect on the region's international competitiveness became institutions. These include an excessive number of workers, salaries and wages far higher than those paid in other sectors, low labour productivity and rigidities which prevent the assignment of labourers to different tasks or different shifts. As for the labour union monopoly in the majority of ports, it, together with weak management of port servicing, results in faulty usage of facilities and equipment. In addition, as little competition is encountered in ports, port authorities usually set rates which do not reflect the real cost of the resources they use in their various operations, and vessels and cargo stay in port longer than necessary. The solution to port congestion frequently adopted is to invest additional large amounts in infrastructure and equipment in order to avoid the need to resolve the difficult institutional problems which exist.

These problems taken together usually bring about rises in maritime freight rates and cause exports to be less competitive in world markets and the prices of imports to be higher. Thus, unless drastic changes can be introduced in the

operation of ports, many countries will see their aspirations to increase and diversify their exports doomed.

The changes needed will affect the interests of longshoremen and will require agreements with trade unions in addition to legislative change. It should be noted, however, that in many cases an investment by the State to compensate longshoremen for the loss of their acquired rights and to make it possible to reduce the number of workers, make work schedules and the assignment of tasks more flexible, encourage investment in equipment for users and private stevedoring companies and use existing facilities more efficiently, will bring in benefits far greater than those which could be yielded by the same investment if it were allocated to the establishment of new facilities (see box V.16).

The changes required in ports will also affect State port authorities or enterprises, most of which not only own the port facilities and equipment but also carry out port operations directly. Owing to the lack of competition, there is not enough of an incentive for efficient operation. Although many countries will wish to keep ownership of ports within the orbit of the State, port operations can, at the very least, be carried out by stevedoring firms in competition with each other. Regional decentralization of port management and the incorporation of users in their administration would also make it possible to introduce elements of competition among the various ports of a country, thereby improving on the way in which they meet the needs for changes in the production pattern.

c) *Producer services*

In addition to the basic services covered above, there is a wide variety of other services which play a role of increasing importance in economic activity and in the introduction of changes in production patterns. These have been dubbed producer services because they are made up of non-material inputs in the production process. Although they are intangibles, they usually generate a significant part of a product's value added. Thus, in the export of certain agricultural commodities and manufactures, producer services in the broad sense of the term (including transport and marketing) account for between 60% and 90%

of the final price paid by the consumer, the remainder constituting the returns to the production process as such.

These services have become increasingly important and have developed side by side with the production process thanks to the tendency to contract from outside a number of services which were previously not available or were carried out within the enterprise. This is why producer services now cover an increasingly broad range of operations which extends from pre-production services, including feasibility studies, product design and financing, to post-production services, made up of such essential services as those related to the marketing and physical distribution of the product. Services needed during the production phase may also now be assigned to third parties under contract, even in specialized fields such as information, production itself and quality control.

This short list, which is far from complete, shows some of the functions which may be exercised by modern services in the production process and which relate to the provision of market information, available technologies and production alternatives and commercial strategies in which the producer must be taken into account. At the same time they provide a suitable means of introducing innovations and perform essential functions such as financing, transport and marketing. In the last analysis, all these functions are largely responsible for whether or not a final product will be able to compete in today's dynamic markets.

In the industrialized countries this new role of producer services has received wide recognition, and those countries which are most successful in terms of growth and exports are precisely those which can rely on a well established infrastructure in which the various categories of services have succeeded in enhancing the advantages of specialization and complementarity among themselves and with other production-related activities.

In Latin America the situation is very different. At present services in the region are still either identified as a backward sector of development or constitute an escape valve for the solution of employment problems. The traditional services are usually characterized by low productivity and few or no links with the

production process itself, while the modernization of services has taken place only in a few enclaves of dynamic growth associated with exports or with domestic markets for sophisticated consumer goods.

It is therefore urgent to call attention to the need for the Latin American and Caribbean countries to formulate and apply policies promoting the development of a modern producer services infrastructure. Although little experience has been acquired in this connection, it is obvious that producer services need market stimulation policies which favour their modernization and strengthen their relationship with the other sectors. The great majority of the services clearly fall within the area of private activity, and the State's main role in this regard is therefore to create a framework in which the management of private enterprise is promoted. All of this calls for a certain amount of regulation for some services and the total deregulation of others, depending on the kind of service and on the amount of local capacity which already exists.

d) *Telecommunications, electronic information and data processing*

Not only is this sector economically important in itself, it also constitutes an enormous share of the infrastructure used to support producer services, in particular those producer services offered to producers of services. This characteristic of providing infrastructure is all the more important in the case of international trade, where access to this kind of producer services constitutes an essential requirement for penetrating external markets.

Two sides of the same coin may be seen here, in terms of the risks and advantages which an agreement to liberalize international trade in services might represent. On the one hand, the penetration of the regional markets by enterprises from outside the region would be promoted, while, on the other hand, liberalization would help to enhance the genuine competitiveness of regional industry.

In view of the broad technological trends which lead increasingly in the direction of the introduction of electronics in services and of their computerization, internationalization and integration in a way which is causing production processes to develop along certain irreversible lines, the strategy being proposed is one

designed to help the region to play a role in keeping with its importance at the international level.

Some of the lines of action which may help to steer the policies of the countries of the region in this direction are as follows:

i) Maintenance, as far as possible, of the *co-operative character of the international telecommunications system*. In this connection, it would seem useful to strengthen the role played by INTELSAT, which is threatened by the destabilization of the co-operative system.

ii) The direct or indirect integration of the industry of the region into the *great international research and development projects* under way in this field, in particular those with a standardizing nature. It should be pointed out that the great multinational consortia in this sector are devoting something like 10% of their income to research and development. Neither the scales of production nor the levels of the profits earned allow the industry of the region to achieve comparable percentages and volumes. Large programmes in which the region should in one way or another associate itself include: Jessi, in the field of electronic components and high-definition television, RACE in connection with very wide band telecommunications networks, ESPRIT in the field of data processing and electronics and IMPACT in that of information services.

iii) Emphasizing *the sector's special features*, which are due to the fact that information – the merchandise handled – is unlike any other merchandise. It thus becomes necessary to work in concertation with the rest of the world in delving deeply into such matters as the protection of privacy, intellectual property, and computer crime.

5. The financial system and changes in production patterns

a) The financial system and economic development

The necessity for the countries of the region to effect changes in their production patterns and the thin flow of external capital being predicted for the 1990s have turned the mobilization of domestic savings and the quality of the investments made into decisive factors in

the achievement of satisfactory growth rates. In this context, particular importance must be attached to the attraction and intermediation of funds for the formation of capital by financial institutions, which can make a significant contribution to economic development by providing incentives for savings, investment and the efficient reallocation of resources. In essence, this is because the financial system increases the range of options available to economic agents. If the financial system did not exist, economic agents with more income than they needed to meet their budgeted expenditure could maintain their savings only by accumulating means of payment or by purchasing some product or physical asset. Financial institutions, however, could attract abundant savings or surpluses by issuing a series of financial instruments of varying degrees of yield capacity, risk and liquidity. Similarly, in the absence of a financial system, economic agents would be limited in their capacity to continue budgeting expenditure which exceeded their income or resources. On the other hand, with the funds attracted from agents with a monetary surplus, financial institutions could help finance the budgeted spending of agents lacking in resources. In addition, by acting as intermediaries, financial institutions could not only attract an enormous amount of small savings for use in financing large-scale investment projects, but they could at the same time "transform" or extend the due date of the loans used to finance such projects in relation to the shorter average period of maturity applied to financial savings.

In theory, the structural effect of the appropriate use by financial institutions of their ability to mobilize and attract funds is an increase in the flow of real savings as a share of the product. Financial institutions also improve their efficiency in the allocation of resources by evaluating a large amount of background data in deciding which of the investment projects submitted by economic agents with a shortage of funds will be productive. In addition, in allocating credits it is incumbent on financial institutions to compare the level of debt of recipient economic agents against the amount of equity funds or own capital which they contribute, in order to calculate the debt/capital ratios which make timely repayment of loans possible. Finally, the

financial system also contributes to economic development and to the changing of production patterns by reallocating funds to activities or sectors which have become more profitable, thereby increasing the flexibility with which real resources can be moved among the economic sectors.

In practice, the contribution which the financial system may make to the processes of accumulation of wealth depends on factors outside their scope of operations and on internal factors relating to their organization, regulation and the legal framework in which they operate. Factors of an external nature include primarily the achievement of a reasonable balance of macroeconomic variables, a price system which sends correct signals about how resources should be allocated, and a neutral system of incentives which does not tax the financial system more heavily than the other economic activities. The most important internal factors include a financial sector which is organized in such a way as to reward competition among the various financial institutions and makes it possible to take advantage of economies of scale; the presence of mechanisms for monitoring the soundness of financial institutions through prudent rules for portfolio diversification; the quality of the management of financial and credit transactions; and a legal framework which facilitates financial transactions and inspire confidence in financial operations especially the medium- and long-term investment of funds.

The importance for growth of maintaining a proper ratio between certain key prices is supported by theory and also by experiences in various parts of the region. In the case of the exchange rate, such price links depend primarily on the incentive provided by an appropriate real price level to the expansion of sectors producing exportable goods. In the case of interest rates, this ratio between key prices is associated primarily with an increase in *financial* savings and with the motivation to channel those funds towards investments yielding greater profits and towards the more efficient use of the capital endowment. On the other hand, the effect of interest rates on *real* savings has proved to be slight when it can be perceived at all. Although rises in interest rates

can provide an incentive for personal savings, they can at the same time reduce the savings of enterprises by decreasing their profits and raising the price they pay for servicing their net debt.

A neutral approach to incentives for the financial system usually envisages positive real interest rates (within a reasonable range), realistic and credible rates of exchange and moderate spreads between active interest rates (or interest rates on loans) and passive interest rates (interest rates on deposits). Because financial incentives as such make domestic financial instruments competitive by comparison with other investment options within and beyond a country's geographical borders, they are indispensable for promoting savings in financial instruments, preventing flight of capital to the exterior and validating the role of prices in the allocation and reallocation of funds. The existence of a neutral system of incentives also facilitates the achievement of financial deepening. This process, which is reflected in a larger share of financial funds in the gross domestic product, is also characterized by the introduction of new institutions and financial instruments, which helps to extend the period of maturity of the debt papers and to increase the significance among sources of financing of instruments relating to equity funds or own capital.

b) *Interest rate policy and restrictions on promotional credit systems*

In many countries of the region, the fixing of nominal interest rates and exchange rates in inflationary conditions has led at various times to the establishment of excessively low (and even negative) real interest rates and considerable exchange lags (see box V.17). Moreover, in an effort to offset the traditional short-term orientation of commercial or deposit banks, the governments of most Latin American and Caribbean countries have encouraged the establishment of development banks and funds. These are geared to financing private sector investment projects using public or foreign funds. In a considerable number of cases, the governments have opted for specialized institutions and promotional systems of financing, such as selective credits at preferential interest rates for certain sectors or production activities considered to have priority.

Box V.17

THE FINANCIAL SYSTEM OF THE DOMINICAN REPUBLIC IN THE 1980s *

The financial system regulated by the Central Bank became less competitive in the 1980s. This caused the informal financial system to expand, set off a flight of capital to the exterior and resulted in a reduction in the relative size of the regulated financial system. Close to 1 000 informal financial institutions, attracting and acting as intermediaries for funds equivalent to one-third of those handled by the regulated financial system, are estimated to have been in operation in 1987. Private deposits in the exterior by nationals of the Dominican Republic more than doubled between 1980 and 1987, while the ratio between credits granted by regulated

financial institutions and the GDP fell from 39% in 1983 to between 35% and 36% in 1986-1987.

The main factors contributing to the loss of competitiveness of the financial institutions in the regulated sector and of financial instruments in national currency included strong inflationary pressure (due to a substantial monetization of the public sector deficits) and inadequate policies for setting interest rates and exchange rates. From 1984 on, the rate of inflation was several times higher than the average rate during the preceding decade (see table 1).

Table 1
DOMINICAN REPUBLIC: INDICATORS OF THE SITUATION
OF FINANCIAL INSTITUTIONS

Year	Private deposits in the exterior (millions of US dollars)	Domestic inflation, calculated on the basis of variation in the GDP deflator (percentages)	Ratio of credit granted by regulated financial institutions/ GDP ^a /
1980	459	13.8	34.1
1981	568	4.8	35.8
1982	653	7.3	36.9
1983	719	4.8	38.9
1984	851	18.5	33.4
1985	903	38.9	30.8
1986	846	22.4	34.8
1987	1 041	15.7	35.9

^a Excludes credit granted by the Central Bank.

The inflationary pressure caused the real interest rates on deposits to become erratic and often negative, and in some years, even the real interest rates on the loans made by financial institutions in the regulated sector were negative (see table 2).

The spreads between the rates on deposits and on loans were clearly too small to sustain the

profit-making capacity of the regulated financial institutions, with the exception of the commercial banks. In the case of the latter, the compulsory reserves which ordinarily amount to over 20% of their deposits must be taken into account in evaluating their gross margin of intermediation, which averaged over 9% per year during the period 1980-1987.

* This box is based on a study by Apolinar Veloz (carried out in collaboration with Magdalena Lizardo and Rolando Guzmán) on the financial system in the Dominican Republic and the selective allocation of credit.

Table 2
REAL ANNUAL INTEREST RATES ^a IN FINANCIAL INSTITUTIONS
OF THE REGULATED SECTOR
(Percentages)

Year	Commercial banks		Development banks		Mortgage banks		Savings and loans associations	
	Rate on deposits	Rate on loans	Rate on deposits	Rate on loans	Rate on deposits	Rate on loans	Rate on deposits	Rate on loans
1980	-7.5	3.1	-7.1	-5.5	-5.5	0.1	-9.6	-7.4
1981	1.9	10.8	2.9	5.3	3.0	8.5	-0.3	1.9
1982	-0.8	7.4	3.5	2.8	2.4	6.4	-2.0	-0.3
1983	0.6	8.1	6.1	6.7	6.1	8.5	0.9	2.0
1984	-14.0	-6.5	-8.8	-7.6	-7.1	-5.1	-12.8	-11.4
1985	-34.3	-24.7	-28.0	-25.7	-26.4	-24.0	-32.4	-30.9
1986	-17.0	-5.7	-9.1	-6.5	-8.9	-6.8	n.d.	n.d.
1987	-8.9	2.3	0.3	2.2	n.d.	n.d.	n.d.	n.d.

^a Using GDP deflator.

The redistributive effects of the real interest rates were substantial as from 1984. The implicit taxes on depositors rose to an annual average of not less than 5% of GDP in the period 1984-1987,

while the implicit subsidies to users of credit stood at a similar level over the same period (see table 3).

Table 3
ESTIMATE OF TRANSFERS IMPLICIT IN FINANCIAL TRANSACTIONS
OF THE REGULATED FINANCIAL SYSTEM

Year	Subsidies to users of credit as a percentage of GDP		Tax on depositors, as a percentage of GDP	
	Commercial banks	All institutions in regulated sector	Commercial banks	All institutions in regulated sector
1980	1.2	2.6	1.8	3.1
1981	-0.4	0.2	0.3	0.9
1982	0.3	1.2	0.8	1.5
1983	0.2	0.8	0.6	1.0
1984	2.8	4.9	2.7	4.6
1985	5.5	9.6	5.2	9.1
1986	3.0	3.9 ^a	3.9	4.7 ^a
1987	1.3	2.5 ^b	2.3	2.4 ^b

^a Excludes savings and loan associations.

^b Excludes savings and loan associations and mortgage banks.

Unintentionally, these financial instruments and policies have restricted the role of financial systems and capital markets in attracting and mobilizing funds for investment. These functions have also been hampered, especially recently, by the apparently doubtful creditworthiness of a considerable number of credit institutions in the region.

In fact, the granting of loans to finance investment projects at subsidized or preferential interest rates countervenes generally accepted principles for the allocation of resources. If the investment projects in priority sectors are profitable, the interest rate subsidies are not necessary, unless the current interest rates are too high and are expected to drop in the future. If, on the other hand, the investment projects are not profitable at appropriate real interest rates, they should not be granted credit, unless they generate benefits which have not been taken into account in calculating private profitability. However, in this case, subsidies should be channeled not through interest rates but directly through the public budget, as Costa Rica has recently done. On the other hand, the longer payback period for loans from development banks is justifiable, since the credit market may not have enough funds with suitable payback periods for financing investment projects.

The factor which has most undermined the effectiveness of selective credit policies is the fungibility of financial funds, which explains why they naturally tend to be directed to the most profitable sectors.⁵ The shifting of preferential funds to other activities and the access to credit of low-profit projects, which enable rates to be subsidized in credit markets that are themselves segmented or fragmented, underline the distortions to which promotional financing systems may lead. For example, in the Dominican Republic, the fixing of excessively low or negative real interest rates has entailed an implicit levy on depositors (and a concomitant implicit subsidy for borrowers) which may have averaged approximately 5% of the gross domestic product in the period 1984-1987. The inequity of these redistributions lies in the fact that the net worth and average income of the depositors was certainly

considerably less than the net worth and average income of the borrowers.

For these reasons, a neutral system of incentives for the financial system should aim for a range of positive but moderate real interest rates in the formal financial system (assuming the existence of credible and realistic exchange rates). Active interest rates should not exceed a reasonable pre-tax profitability rate (if interest payments are considered as income for tax purposes), nor should they exceed the post-tax profitability rate (if interest payments are considered as expenses for tax purposes). Otherwise, borrowers will have difficulty in servicing their debts. At the same time, active interest rates should not fall so low that they are no longer effective as a factor in rationing credit demand.

As for passive interest rates, they should not rise so high that they will lose their competitiveness in relation to other sources of financing, or fall so low that they can no longer attract and keep funds in the financial system. This latter objective requires that national interest rates on deposits should be at least equal to international interest rates plus expectations of exchange rate devaluation.

However, the determination of market interest rates such as those mentioned above requires fairly strict macro-economic conditions. These primarily include the following: control of the public sector deficit, in order to limit its demand for funds in the credit market or to prevent the immoderate growth of the money supply (with the consequent effects on price levels and international reserves); control of inflationary pressures in a context of reduced cash reserves and other incumbrances on the financial system; and the systematic interaction of the principal macroeconomic markets, making it possible to adjust – via price changes – the credit, labour and exchange markets simultaneously in order to prevent the credit market – responding to factors which are disturbing the macro-economic balance – from absorbing the effects of the rigidities and maladjustments of the other two markets. As can be seen from the recent cases of Chile and Costa Rica, these conditions provide credibility to the economic policy and enable the market to play a more active role in determining

⁵ A common example of fungibility is the release of investors' own funds, where subsidized loans are available, and their channeling into profitable projects in other activities.

interest rates, while avoiding the risk that its relatively free operation will lead to excessive real rates.

In economies subject to inflationary pressures, a system of positive but moderate real interest rates should be subject to procedures that will neutralize the effects of inflation on financial operations. These procedures include complete indexing of funds, which has been practiced in Brazil and Chile; automatic extension of credit to offset the effect of inflation on loans granted previously under non-indexed systems (but having variable interest rates), which is used by a number of development funds in Mexico; and indexing that is subject to a pre-announced ceiling and a system of variable nominal interest rates, which has been used in Colombia.

c) *Reorganization of credit institutions*

The establishment of less specialized credit institutions, which may diversify their assets and liabilities more widely, involves changes in legislation to further the standardization of the financial operations and services of these institutions, and to facilitate their amalgamation. Options for reorganization range from expanding the field of competence of credit institutions to include operations and services complementary to those already offered, to multi-banking laws that may pave the way for a broad spectrum of financial activities. This last alternative has been used in Chile and Mexico.

The imperfections of the region's credit markets are particularly evident in the lack of access to loans (credit "rationing") by firms and economic agents operating on a small scale, and projects proposed by new enterprises of varying size which have no prior credit rating. This lack of access supports the role of development banks. However, experience shows that merely having access to credit is not enough to ensure the increases in production that will guarantee

the repayment of debts. The simultaneous provision of training and technical assistance to borrowers has proved to be a decisive factor for those development banks and funds which have achieved successful results. The profitability of investment projects should justify providing these institutions with access to credit on appropriate payback terms, without the need for interest rate subsidies.

Development banks and funds are subject to an adjustment of their role in financial systems. One of the basic purposes of these institutions in the 1990s should be to attract their own medium- and long-term funds on the market, to complement the resources that may be provided or channeled by public sectors. The achievement of this objective is likely to reveal the importance of issuing profitable fund-raising securities on the medium and long term, placing emphasis on the profitability of investment projects and seeking formulas for financing projects that will limit the credit risk to the development institutions. For this last purpose, investors may be required to have a higher proportion of equity, development institutions may be encouraged to contribute risk capital to the projects, and options may be offered for debt conversion in cases where payment problems arise during project execution.

The leasing of capital goods is an alternative to offset the lack of long-term funds for the financing of investment projects. This alternative has a great deal of potential in the region and may form part of the financial operations, *inter alia*, of development banks.

In the case of commercial banks, the introduction of trust funds guaranteed by the public sector or other financially sound institutions may suffice to provide economic agents and small businesses with access to loans for working capital, exports and other credits relating to production.

D. INTERACTION BETWEEN PUBLIC AND PRIVATE AGENTS

1. General principles

The style of government intervention consistent with changing production patterns with equity will obviously have to be different, as noted above, from the style which favoured industrialization in the preceding phase. The latter was focused on creating the physical support infrastructure for an industrialization that was basically oriented towards the domestic market, transferring resources to the private sector in a number of different ways, and establishing public enterprises in certain sectors which produced widely used inputs. Today, however, the State is faced with the task of participating in overcoming the accumulated deficiencies in two crucial areas, equity and international competitiveness.

This participation is of such content and scope that it does not lend itself to preconceived notions. Not only will it depend on the institutional, social, economic and political context into which it is inserted, but it will also tend, in pluralist and democratic societies, to be subject to a wide-ranging consensus among the various interest groups. This is why only a few general principles can be offered as a guide to governmental action in support of changing productive patterns with equity. The concrete form taken by these principles will depend on various factors, including interaction between public and private agents – the latter including social sector organizations – in the context of what has been called "strategic consensus-building" in this document (see box V.18).

a) *Selectivity based on self-limitation and simplification*

Governmental action requires *self-limitation* and *simplification* of its interventions. The effort to fulfill this objective may in itself strengthen the State, by forcing the political authorities to evaluate the justifications and organized interest groups underlying the whole range of State activities. In today's conditions, and in the present economic and social environment, the State is called upon to focus its efforts on applying technological advances to production processes, selectively and

persistently favouring the development of new comparative advantages at the international level, compensating for the lack of competitiveness of enterprises that are forced to confront frequently cartelized transnational markets, and correcting the concentrating biases of the development process. If the State does not make this selective effort, it may lose even more control over quasi-autonomous public institutions, and the quality of its services to the public may further suffer.

It must be recognized, however, that this principle may enter into conflict with democratically expressed demands and beliefs with regard to social rights, as well as with bureaucratic and corporatist clientage tactics. Moreover, there is a danger that the State will find it easier to eliminate the very activities which are designed to meet the needs of the least organized and poorest sectors of the population. The objective of State self-limitation thus requires public debate on specific problems, and the presentation of realistic and socially just options for carrying out the tasks abandoned by the State. In pluralist democracies, decisions on what the State should do cannot rely entirely on efficiency-based criteria.

b) *Efficiency*

A second principle which should guide public action is that of the *efficiency* of the regulatory machinery used. The benefits of governmental action should, in principle, outweigh the costs. There needs to be a way for public action to be evaluated in social terms, and the standards applied to intervention must therefore be clear and understandable. It must be remembered that compensatory actions to correct distortions in one sector may appear as distortions in all the other sectors. Thus, when there are many governmental interventions, it becomes difficult to determine the net beneficiary sector of the economic policy. In other words, beyond a certain point, interventions become counterproductive in that they begin to endanger the possibility of evaluating the effects of governmental actions and initiatives.

In fact, there are situations in which the excess of controls, administrative redundancies and

bureaucratic delays make deregulation advisable, a process which may be more or less drastic depending on the case in question. In other cases, regulation is a source of income for agents located outside the public sector but in close contact with it, i.e., State contractors. The standardization of procedures, transparency of operations and public bidding are gradually helping to modify such regulation, which encourages featherbedding and, by diverting entrepreneurial initiative towards activities of doubtful social usefulness, hampers the competitiveness of the production sector.

There have also been cases in which the modification of regulatory instruments was justified because of a change in the pattern of behaviour of the economic agents or the parameters determining their efforts. For

example, in some countries the public sector's heavy investments in infrastructure and human capital are now yielding fruit; thus the prerequisites have been met for an autonomous private development, which does not require the same level of public intervention as in the past.

Finally, there are situations where deregulation may be inappropriate, or even where more deregulation than at present is needed, either to protect consumer interests or to allow for the market's favourable effects on competition.

c) *Decentralization*

The decentralization of many State responsibilities in favour of elected regional and local authorities, or perhaps non-governmental

Box V.18

THE EXPANSION OF CHILEAN EXPORTS AND THE ROLE OF THE PRODUCTION DEVELOPMENT CORPORATION

In the 1970s and 1980s, a notable structural change took place in the Chilean economy: it went from being fairly closed to being essentially export-based. Measured in 1988 dollars, export value rose from US\$2 250 million in 1972 to 7 050 million in 1988. The export coefficient thus increased from 13.7% in the five-year period 1968-1972 to 31.0% in the five-year period 1984-1988. This was due to the increase in copper sales to a certain extent, but even more to the growth of exports in three categories: fishery products, forestry products and fresh fruit. From 1972 to 1988, sales abroad for the total of these products rose from US\$191 million to US\$2 134 million, thereby accounting for nearly 40% of the increase in Chile's total exports (and more than 60% if copper exports are excluded). The proportion of total exports represented by these products, which had been approximately 3% in the early 1970s, rose to more than 10% in the second half of the 1980s. This helped to reduce the share of copper exports from 76% to 44.8%, making the country less dependent on this metal.

CORFO and the expansion of fruit, forestry and fishery production

The increase in exports in these categories cannot be explained without referring to one of the central agents in the process: the Production Development Corporation (CORFO), the State-owned production development agency par excellence. CORFO was founded in 1939. Its

basic strategies are defined by a Council, in which representatives of the public and private sector participate. Until 1974, this agency promoted development efforts in the three aforementioned sectors, which were considered strategic to national development.

In the forestry sector, the first CORFO initiatives go back to the early 1940s. The original plan for developing this sector resulted in the setting up of a number of privately owned plants, including the first chemical pulp plant. CORFO also promoted the planting of Monterey pines and the conducting of forest surveys. In the 1960s, a specialized technology development institute was established; in conjunction with the private sector, sawmills and paneling factories were set up, and two large State-owned plants were established for producing wood pulp for export. These plants only began to operate at full capacity at the end of the 1970s, and they alone generated the entire increase in pulp production and export registered during the decade. In addition, there was a rise in the rate of expansion of pine plantations, which have been the basis for the increase of forestry production in recent years.

In the fishery sector, although the first CORFO efforts date back to the 1940s, it was only in 1960 that a large-scale promotion plan was inaugurated, with significant subsidies being provided to the private sector. In five years, after

an explosive increase in the number of enterprises, fish meal production increased fivefold. In 1965, however, fishery production plummeted, seriously damaging these heavily indebted enterprises. CORFO then implemented a plan for rationalizing the industry, providing capital for the formation of mixed enterprises by merging the existing ones. In the following years, a smaller group of enterprises was consolidated, and their operations were streamlined to increase their efficiency. In 1974, when new policy guidelines led to the privatization of CORFO's share in these enterprises, the use of installed capacity did not exceed 30%. It took until nearly 1980 for this capacity to recover. It should be recalled that fish meal exports in the 1960s had tended to represent more than 75% of production, not surprising in view of the fact that this industry had been originally intended as an export activity.

In the fruit-growing sector, studies were undertaken at the beginning of the 1960s to determine the possibilities for expanding it, including assessments of the European and United States markets, appraisal of domestic obstacles in terms of transport and marketing, efforts to develop new varieties, etc. In 1963, CORFO opened a line of credit for plantations and related installations, and in 1968 it promulgated a national plan for the development of fruit growing, which envisaged the building of a number of fruit processing plants. These were essential in order to solve a number of serious post-harvest problems (especially with regard to cold storage). As a result of this plan, the number of plantations increased markedly; certain serious technical problems hampering the export of fresh fruit were resolved; and steps were taken to direct the activity towards export.

Support for exports from 1974 onwards

Since 1974, a series of policies have been implemented to promote the development of exports in these three sectors; these include trade opening, accompanied by a significant real currency devaluation; streamlining of the export process; modification of labour legislation (which contributed to a sizeable drop in the wage/dollar ratio and the regulation of certain key processes, such as the operation of ports); granting of guarantees with respect to the ownership of enterprises; implementation of specific sectoral promotion policies (a high subsidy for pine plantations, soft credits for fruit growing etc.) and other measures. During this period, the primary responsibility for developing exports in these categories fell on the private sector.

Lessons from this experience

Contrary to what certain superficial evaluations might suggest, a position in the world economy is gained by a combination of both public and private initiatives. These respond to challenges related to the varying historical contexts, and are translated into a sometimes slow, but necessary, learning process. In large-scale strategic initiatives, such as gaining a niche in new production activities or markets, there appears to be no dilemma between the public sector and the private sector. What does seem to be essential is to combine and co-ordinate the efforts of both.

The development of exports of products with natural comparative advantages has long been delayed, and it requires strong, concerted efforts. If the goal is to enhance the competitiveness of these products by incorporating into them more intellectual added value in order to penetrate new markets, it will be even more necessary to have a stable, strategic pooling of private and public endeavours.

organizations and neighbourhood associations, is desirable and apparently inevitable, in view of the shortage of resources available to the central government and the increasing demands for regional and local autonomy. Oppositions also arise at this level, e.g., between the aim of granting enough autonomy for local bodies to gain experience and confidence through a process of trial and error, and the aim of preserving national standards for services, providing governmental protection of certain rights and ensuring that power groups and political bosses do not gain control of local bodies to further their own interests. These

oppositions – and even contradictions – indicate a constantly shifting balance between centralization and local autonomy, subsidies and forced autarky, centrally imposed norms and local resistance to such norms.

d) Stability and realism

Changes in the domestic and external economic context make it necessary to modify certain measures, but the constant adjustment of policies to tailor them to changing circumstances should be avoided. Indeed, in order to fulfill the entrepreneurial role properly

and deal with the risks which this entails, the private sector requires that the rules of the game remain stable.

At the same time, the State's capacity to initiate, amend or abandon a given policy depends, among other things, on a better understanding of the group interests, organizations, ideologies and self-defence tactics of the various social agents. One way that democratic political leadership can adjust its roles to correspond more closely with social interest groups is through dialogue with representatives of these groups.

e) *Outlook*

Lastly, an aspect of interaction between public and private sectors which is especially relevant is the need to know – even if only minimally – the future scenarios towards which each national society may be moving. This forward-looking effort was often overlooked during the 1980s, when short-term imbalances and adjustments were absorbing the attention of governments. In the next decade, this is one of the new roles that will be played by national planning and public policy co-ordination bodies. This future-oriented role is fully justified in at least three senses: it favours the unity or consistency through time of governmental decision-making; it serves as a guide for private economic calculations, enables clearer estimates to be made of long-term investment risks and offers a vision of the possibilities that might be available to all the components of the social structure. This task, which transcends the mere extrapolation of trends, should not be confused with those outmoded practices which used to attempt to set the standards for development; instead, it will articulate an array of possible future scenarios beyond those of the markets, or of each agent or social group taken separately. In this spirit, this planning function can play an effective role in support of efforts at negotiation and coming to an understanding, both between governments and enterprises and between enterprises and the other social agents.

2. **Fields of interaction**

With respect to the above-mentioned principles, the field of economic policy is quite broad, ranging from macroeconomic management to the implementation of policies

related to specific economic sectors or functions. Some areas of special relevance to the promotion of international competitiveness are as follows:

a) *Information on markets and technology*

Information is usually considered to be a public good, since once it is produced it is very difficult to keep interested parties from having access to it. This fact complicates the collection of data by information services and helps prevent the market from providing the socially desirable volume of information. This is why the gathering and dissemination of information is one of the functions normally performed by governments. This function is justified in respect of markets and technology, especially where producers or consumers are widely separated, because this maximizes the multiplier effect of governmental action.

b) *Reduction of commercial risks*

The unavoidable commercial risks associated with a strategy of greater trade liberalization are not a sufficient reason for renouncing this strategy. Indeed, past experience indicates that a strategy oriented towards domestic markets presents similar risks. Even so, these risks exist, and they are a good reason for policy measures designed to reduce the external vulnerability of the economy. In this sense, the promotion of export diversification is a positive element, but insufficient in and of itself. Other instruments which may help to reduce external instability are commodity stabilization funds, export insurance, fixed price ranges and anti-dumping mechanisms.

c) *Consumer protection*

The consumer was one of the agents frequently left out of the preceding industrialization strategy. The quality of manufactures was often sacrificed, and no attention was paid to their cost for the sake of building an industrial base. Consumer protection can take various forms, including the providing of information and the sanctioning of abuses. The regulation or setting of prices also makes sense in some very specific markets, such as that of basic services, where due to economies of scale it is not feasible to create a competitive market. However, the State cannot be expected to carry out the entire job of protection. The encouragement of independent

consumer-protection organizations may be an excellent tool for accomplishing the same task.

d) *Protection of industrial property and promotion of technology transfer*

The protection of industrial property through patents or trade marks is an incentive for technological research and the preservation of minimum standards of quality for goods and services produced. In turn, the regulation of technology transfer is advisable in order to protect people and the environment against any undesirable side effects of technology. However, in both cases some exceptions need to be made. Thus, patents or trade marks should not be used to justify actions which will harm consumers, and the regulation of technology transfer cannot be carried to such an extreme that it discourages investment projects that would be of benefit to the country.

e) *Relations between entrepreneurs and workers*

It would seem desirable to encourage direct negotiations between entrepreneurs and workers, restricting the State to being a mediator of last resort. However, mechanisms need to be established for balancing the interests of both groups of agents, strengthening the collective bargaining power of workers and ensuring compliance with basic social and trade union rights. In this context, greater worker flexibility and mobility are desirable, taking into account the situations of the various sectors. It would also be useful to promote mechanisms for the conciliation of interests and to reinforce common objectives which will enable workers to participate more and will enhance the productivity of the enterprise.

f) *Active strategy for external insertion*

A much closer linkage is needed between external economic strategy and international policy. To this end, the external services of Latin America, conceived as focal points for the effort to insert the country, its society and its economy into the international economy, must be modernized. This in turn implies rationalizing the management of the relevant ministries and updating their systems of information, administration and diplomatic staff training, considered as essential support elements to the management of these services. This means

moving towards a concept of "external policy system" and its materialization in the institutional organization of the State.

3. Organization of production

An effort has been made throughout this document to reconcile the need for changes in production patterns with the need for equity. This reconciliation is not unrelated to the various agents which will eventually carry out these changes. Some considerations will therefore be presented on the potential role of three types of agents whose efforts would presumably seek to achieve a more symbiotic relationship among the ways of gaining access to international competitiveness in the context of greater social equity.

a) *Public enterprises*

The external debt crisis of the 1980s has forced the governments of the region to take a critical look at their entrepreneurial efforts. In many cases they have seen that the huge financial deficits of some public enterprises are not at all correlated with their contribution to development or to the general welfare. They have also seen that price increases do not necessarily solve the financial problem of public enterprises, and that the inefficiencies of their operations have deep roots, some of which are domestic and others external.

For governments to make an effective contribution to changing production patterns in the 1990s, they will need to be able to concentrate their own organizational and administrative capabilities – which are necessarily limited – on areas considered to have priority on the basis of fixed goals. They must therefore bear in mind the following criteria:

i) the reduction or elimination of an enterprise's deficit will be achieved only to the extent which the origin of this imbalance is understood. This origin could be either within the enterprise (e.g., poor management, ineffective incentive system) or outside it (e.g., objectives defined by the government which are incompatible with profit-making, poorly designed tariff system). The use of one or another scheme to solve the problem will therefore depend on the existing deficiency and the costs and benefits of overcoming it.

ii) the specific social or developmental objectives of the enterprise should be spelled out so that their scope can be measured and their effect on the opportunity and cost of fulfilling the enterprise's objectives can be evaluated. Various criteria can be used for this purpose, besides profitability. The various interactions between enterprises and the public sector could also be made more transparent.

iii) the staffing policy of public enterprises must correspond to the importance of these enterprises: a reasonable degree of stability and autonomy and a competitive level of remunerations would appear to be essential requirements.

iv) the public large-scale production enterprises of the region are an important asset, if their economic base is solid and their administration efficient. However, there are cases where the resources available to certain public enterprises exceed the needs of their current objectives; they are overcapitalized, they have too many employees and their technical or installed capacity is underutilized. In such cases, the objectives need to be modified, or the resources reduced.

v) the relationship with suppliers of whatever origin should be transparent and should be used to promote their technological development and increase their productivity, avoiding the formation of linkages which might encourage featherbedding.

vi) large-scale governmental enterprises should play a crucial role in technological change, applied research, the development of activities for integrating interindustrial linkages or the signing of regional agreements on the pooling of efforts.

vii) the situation of public enterprises which were created in order to overcome a deficiency in the market, or the lack of such enterprises, should be realistically evaluated. In cases where conditions exist for developing the market, the activity might be transferred to the private sector; in cases where these conditions have not yet been generated, the enterprises might be reoriented or eliminated.

viii) the practice of nationalizing an enterprise to prevent its shutdown should be restricted, and in cases where presently

operating public enterprises originated in this way, various options should be analysed, such as their rationalization and sale, their definitive shutdown or their transfer.

ix) there are a number of cases in which the relative weight of the private sector in supplying goods and services could be increased, either by deregulating its activities, granting franchises or privatizing enterprises. This last option might be considered as part of an array of measures concerning public enterprises with chronic deficits, in the case of public enterprises operating in markets where they might be replaced by private firms, or in the case of initially private firms whose rationalization has made them financially viable again.

x) a determining factor in the results of privatization is the way in which it is carried out. The diversity of situations which might arise from the beginning and even after its completion –with regard to regulation, for example– might be resolved in a number of quite different ways. It is particularly important, in the sequence of operations, for the change of agents not to precede the stabilization efforts, but to follow them.

Advances in the development of regulation mechanisms, in private-sector technological and economic capabilities and in the financial system may justify a greater private and foreign presence in sectors which were considered to be strictly in the sphere of public action in previous stages of development. However, in these sectors privatization and liberalization in general are not enough to produce an efficient operation. On the contrary, privatization may lead, for example, to the changing of an inefficient public enterprise into an equally inefficient private monopoly, which in addition charges high prices and does not allocate sufficient resources to investment. Alternatively, significant progress can be made without the need to privatize, if commercial objectives are imposed on the public enterprises, their executives are given autonomy and responsibility, efficient control and regulation mechanisms are adopted and the enterprises are subjected to domestic or external competition. In brief, privatization should be used selectively, accompanied by other measures which ensure that the result will be greater productivity in the entrepreneurial sector.

b) *Small and medium-scale enterprises*

The wide diversity of subjects included in the notion of small and medium-scale enterprises, and the contributions they may make to the fulfillment of the numerous potentialities associated with these enterprises, must be recognized. Besides these potentialities, the vulnerabilities inherent in them also need to be brought out. Furthermore, it is essential to integrate proposals concerning these enterprises into the more general notion of the desired changes in production patterns.

In general, the economic objectives attributed to small and medium-scale enterprises – flexibility, adaptation to specialized markets, production linkages – are more relevant to enterprises belonging to the stratum containing units employing more than 11 and less than 100 persons (or less than 200 in certain branches), which, generally speaking, are potentially more dynamic from the standpoint of productive organization and technological progress, have some capacity for design and marketing, are connected to large-scale enterprises and in some cases compete on the international market. This approximation is based on experience concerning the role of these enterprises in the industrialization process in other economies. Comments on their success generally refer to small and medium-scale modern and economically dynamic enterprises – such as in Italy and in the European countries in general – which are integrally linked in a relationship of complementarity with other productive structures (as in Japan).

The scant results obtained in the past from policies in support of these enterprises in Latin America have less to do with the formal nature of the instruments and institutions – which are generally similar to those of the industrialized countries – than with the dynamics of the preceding industrialization stage and the strategic concept underlying the insertion of the topic into economic and industrial policies. As a contribution to the design of specific policies, certain criteria need to be considered.

Firstly, the policy concerning small and medium-scale enterprises must be an integral part of policies aimed at changing production patterns; thus, a policy in support of these enterprises cannot be exclusively designed to develop and strengthen them, but rather to

develop and strengthen the production sector as a whole, in which they may play a positive role in terms of providing stimulation and linkages. Secondly, the technological progress of a system, particularly in the case of a newly industrializing country, is achieved primarily through the dissemination of existing technology, rather than through the introduction of avant-garde innovations. In industrial policy, if more emphasis is placed on technological development, with the probable benefit depending on the competitiveness of the system as a whole and a decrease in structural heterogeneity, the small and medium-scale enterprise has a high potential for disseminating innovations, whether in respect of goods, processes or organization of production (see box V.19).

Finally, a prime objective of policies in support of small and medium-scale enterprises should be to neutralize their vulnerabilities, at least with respect to the inadequacy of services, in order to encourage their modernization in terms of equipment and management techniques and to develop research and development activities. In addition, the financing and establishment of marketing networks for the products of these enterprises domestically, and more especially abroad, should be considered.

c) *The social sector*

Direct participation by urban and rural workers in the expansion of investment may become a basic element in support of the recovery of family incomes and the expansion of the domestic market, together with achievement of growth with a greater capacity for generating productive jobs. In this process, the various forms of association for social participation and solidarity (co-operatives, self-managed organizations, farm-worker or trade-union ownership, etc.) in economic activities involving both production and consumption, are a way in which broad sectors of the population can gain access to the ownership of the means of production.

There is a heterogeneous array of forms of association: some are highly productive enterprises with a large capitalization capacity and comfortable levels of well-being for their members, whereas a considerable number of economic units have not yet managed to

Box V.19

SMALL-SCALE METALWORKING INDUSTRY IN PERU

Technological innovation can take place in sectors such as metalworking, and even in the production of capital goods (something generally considered to be out of the question for medium-sized countries); moreover, it can take place in small enterprises. This is borne out in practice, as shown by a study recently carried out in Peru.

Most of the innovation is to be found in enterprises which manufacture machinery, and takes the form of the introduction of new or improved apparatus: equipment for bakeries, distilleries and printing shops; hydraulic presses and pumps; electric transformers; radio transmitters; pneumatic components and similar products. The production of the new equipment was usually accompanied by some innovations in the processes or procedures employed.

Innovations were facilitated by various factors, among which mention may be made of the

existence of effective demand by a market that was noticeably expanding in conditions of competition and close customer contacts; the presence of staff with a much higher level of skills than are usually found in Peruvian industry (93% of the innovative enterprises employed professionals or technicians); an effort by those running the enterprises to consult material containing technical information; and a generally favourable attitude to innovation (79% of the enterprises studied had conducted research and development activities). It is worth noting that the majority of them lacked any private or public support or, when such support did exist, it was available only on a temporary and limited basis. The main sources of financing were the enterprises' own resources or loans from clients or suppliers, and the commercial banks and development corporations played no part in the matter.

become consolidated, despite their economic and social potential. The development of these forms of association requires general support strategies in a framework of production and investment.

To expand this form of association and overcome the obstacles involved, a promotion policy is needed through which encouragement can be provided to viable economic projects and enterprises on the basis of a new concept of organization and social distribution. Past obstacles to these forms of association have included poor management, a shortage of executive and technical personnel, a lack of technical assistance, a scarcity of suitable marketing channels, financial problems and the fact that there is no appropriate legal framework.

Moreover, resources which are allocated to mutually unrelated support actions do not achieve the expected objectives or results. It is therefore difficult to establish an integral promotional policy for the whole range of economic activities carried out by social

organizations or associations, or for small-scale enterprises. Rather, the policy's effectiveness depends on setting its priorities and rate of implementation in accordance with a scheme which simultaneously, appropriately and specifically takes into account the factors involved in the identification of the investment project, ranging from entrepreneurial management, technical assistance, financing and occupational training to the adaptation of existing legal and administrative institutions.

Policies for promoting forms of social association for production should form part of a national strategy on the use and occupation of the available space, and they therefore should be applied in a decentralized manner in the various areas of government. To this end, such associations need to develop systems of organization which enable them to establish their own specific technical and financial assistance bodies for the promotion and expansion of the whole of this differentiated sector, and also to enable the beneficiaries to have effective control over their own economic processes.

VI. CHANGING PRODUCTION PATTERNS AND ECONOMIC INTEGRATION

In exploring actions and strategies for changing the productive structures of Latin America and the Caribbean, it is also useful to re-examine the potentialities offered by economic integration in support of this process. First of all, integration has been considered in the past as a tool for an industrialization strategy whose fundamental purpose was to supply domestic demand. It now needs to be demonstrated that integration may also be useful in designing strategies for achieving greater international competitiveness. In the second place, after 20 years of efforts to achieve subregional integration, and despite considerable progress, the expectation that the process might even become a tool of industrialization, as derived from its original objective of facilitating import substitution, had not yet been fulfilled by the end of the 1970s. Lastly, there is the question of why such a great gap still exists between the political will expressed by the governments of the region to strengthen integration (judging by the many political statements made and decisions adopted by intergovernmental bodies in that regard) and the implementation of concrete measures to raise the level of reciprocal economic interdependence.

It becomes even more urgent to reconsider the potentialities of economic integration with respect to the challenges to be faced by Latin America and the Caribbean in the 1990s and beyond in view of the high priority in public policy assigned to integration in other regions of the world. The most eloquent example is the European Community, which is moving towards the elimination of virtually all barriers, and the free movement of goods, persons and capital, by the end of 1992. The recent signing of a far-reaching free trade agreement between the United States of America and Canada, and the current exploration of the possibility of implementing an integration process among a number of countries of South-East Asia and the Pacific, are movements in the same direction. It may also be wondered why the more highly industrialized countries of the world are tending towards subregional economic integration and an increasing relative share of world trade, while the Latin American and Caribbean countries have been characterized in the 1980s by a simultaneous retrogression with regard to both their insertion into the international economy and their degree of subregional and regional economic interdependence.

A. THE SCOPE OF INTEGRATION IN THE CONTEXT OF THE 1990s

The scope of integration in the context of the challenges currently facing Latin America and the Caribbean needs to be clarified. In the past, many countries have made formal commitments, in the framework of subregional groupings, to expand their economic outreach by co-ordinating or unifying certain economic policies, generally through joint institutions. These policies included the granting of tariff preferences to subregional products (normally but not always reciprocal); the adoption of a common tariff, applied to third countries selectively in terms of products; and efforts to

co-ordinate some fields of their economic policy – especially on tax and exchange rate matters –, and sometimes their economic relations with third countries. Joint projects also proliferated in various activities – such as transport, energy, research, education and marketing – which did not necessarily require formal agreements.

In response to the evident general lack of satisfaction in the countries of the region with regard to the achievements of intraregional integration, some are calling for a renewed

conceptual framework. Two comments may be made in this respect. Firstly, perhaps too much emphasis has been placed on the quest for a fresh, overall approach to integration. The perceived lack of a new approach of this type has sometimes prevented piecemeal advances within somewhat more traditionally oriented conceptual frameworks. Secondly, the innovativeness of an updated conceptual framework for integration would not depend so much on the types of instruments used – tariff preferences and co-ordination of policies will continue to play an important role – as on the content and scope of the measures adopted and the ways they are applied.

At the same time, it would also be useful to elucidate the geographical scope of integration. Should the consolidation of a single Latin American common market be proposed? Should the existing subregional groups remain unchanged? Are subregional agreements compatible with more recent bilateral arrangements? It must be borne in mind that the region already has a vast amount of accumulated experience, and that it is starting from a *de facto* situation, based on various multilateral or in some cases bilateral integration arrangements at the subregional level. There would seem to be a need to further improve and consolidate what already exists, move forward where possible (and where it appears justified for the fulfillment of the aforementioned objectives) and continue to consolidate a network of integration efforts rather than trying to respond to the preconceived notion that commitments must be fulfilled in linear order until a final goal is reached. In this effort, account must be taken of the special situation of the countries with smaller or relatively less developed economies, so that their contribution to the integration process will be accompanied by an appropriate share of the benefits generated by it (see box VI.1).

What ultimately matters is that integration and intraregional co-operation should work together to fulfil the most far-reaching objectives of development, including especially, in line with the purposes of this document, promoting a change in their production patterns. In this context, and following the reasoning of the preceding chapters, integration should be oriented towards the specific

objectives of strengthening the countries' insertion into the international economy, furthering the linkage of productive structures and promoting creative interaction between public and private agents. At the same time, besides being functional in terms of the objectives of national economic policies and development strategies, integration must, firstly, yield net benefits for all the participating countries; secondly, be supported by national political projects; and, thirdly, be endorsed by various strata of the population.

With regard to the Latin American integration processes which will be required in order to change production patterns, two elements are worth noting in the context of the experience of other regions. In the case of Europe, the primary economic motive has been to meet international competition by promoting a common effort at technological *innovation*. To lag behind in this area would mean losing the competitive race in those sectors which make intensive use of science and technology and are at the forefront of the trade confrontation between the industrial powers. In the newly industrializing countries, especially those of Latin America and the Caribbean, a task of equal or greater importance is the *learning* and *dissemination* of the technology available at the international level. Increases in productivity depend, firstly, on the rate of absorption and dissemination of acquired technological progress, which is associated with the rate of investment; secondly, on the scales of application of this technology, linked to the expansion and growth of markets; and thirdly, on the efficiency with which this knowledge is used. This efficiency is determined by the process of learning, the various links between enterprises, sectors, and institutions and, in more general terms, by the systematic efficiency of the productive structure.

Thus, the integration of Latin America and the Caribbean for purposes of changing production patterns will inevitably strengthen the process of absorption and dissemination of the technologies available in the world. To the extent that markets are expanded and links between enterprises, sectors and institutions at the subregional and regional levels are promoted, a decisive contribution will be made to both processes, and hence to the full utilization of the opportunities presented by the

fact that these countries have only recently begun to industrialize. On the other hand, the development of production linkages in Latin America and the Caribbean will allow for the incorporation of intellectual value added into

natural resources –with which the region is relatively well endowed–, and this will make more feasible the international insertion of a wide range of goods and services associated with this potential.

Box VI.1

URUGUAY'S BILATERAL INTEGRATION AGREEMENTS

The case of Uruguay is a good example of a small country (in economic terms) which has achieved a significant increase and diversification in its total exports based on the market of its two biggest neighbours, Argentina and Brazil. The Argentine-Uruguayan Economic Co-operation Agreement (CAUCE) and the Protocol on the Expansion of Trade between Uruguay and Brazil (PEC), concluded in the mid-1970s in the general context of the Latin American Free Trade Association (LAFTA), created opportunities for Uruguayan exports to be sold on Argentine and Brazilian markets as a first step towards later efforts to compete in other regions of the world. These treaties have been supplemented by the Colonia Act of 19 May 1985 and the Montevideo Act of 26 May 1987, both signed with the Government of Argentina; and the Uruguayan-Brazilian Economic Co-operation Act of 13 August 1986. Under the first of these, Argentina lifted all tariffs on industrial imports from Uruguay, up to an amount equivalent to 5% of Argentine production, except on some goods considered to be sensitive, for which a ceiling was set at 2.5% of corresponding production the previous year. The Uruguayan-Brazilian Economic Co-operation Act is intended to increase reciprocal trade on the basis of bid rosters to be negotiated periodically. For each project there is a quota, established by negotiation, to which the products exported by each party must be adjusted. A great deal of importance is given to the supply of agricultural products and services and the balancing of trade.

Since the major developed countries began to apply subsidies and protectionist policies to the agricultural sector, Uruguay has had increasing difficulty in gaining access to the markets of these countries for its products, despite its traditional comparative advantages. This has forced it to diversify its sales and divert them to other developing countries. Thus, between 1985 and 1988, Uruguay's sales to Argentina and Brazil increased by nearly 60% –from US\$62.8 million to US\$100.1 million to Argentina, and from

US\$143.4 to US\$228.5 million to Brazil–, while its total exports abroad rose by 25% –from US\$850.5 million to US\$1 066.9 million. Although the full increase in bilateral sales cannot be attributed to the above-mentioned agreements, those signed with Brazil seem to have been useful for the purpose of maintaining the natural comparative advantages of its goods exports, since nearly two thirds of Uruguayan sales to Brazil represent foodstuffs (beef, dairy products, seafood, barley, etc.) and intermediate products. The Brazilian market received an average of 17% of Uruguay's exports in the 1980s. The agreements with Argentina, for their part, helped Uruguay to expand the variety of its non-traditional exports, especially manufactures. Preferential instruments enabled an average of nearly 10% of Uruguay's total exports to be sold on the Argentine market in the same period.

The export of manufactures to neighbouring countries has required changes in investment policy and in the acquisition of equipment and technological know-how –including quality control and the organization of sales networks and after-sales customer service– which would have been difficult to achieve to the same extent within the domestic market. Thus, certain sectors (cotton textiles, ceramics, tanning agents and, in part, fertilizers, iron and steel) which used to export to the subregion now export regularly and increasingly to other markets. In brief, the main factors in the success of these agreements have been as follows: i) elements of co-operation, not necessarily fully reciprocal, aimed at assisting a country with limited potential; ii) continuity and sufficient duration –despite some changes– to produce significant economic results in areas such as financing, joint ventures, physical infrastructure, generation of electricity (Salto Grande) and investments in tourism and real estate; and iii) enough expertise to allow Uruguay to develop and maintain "niches" in the markets of its neighbours and then export to third markets.

B. SOME POLICY GUIDELINES

The suggested guidelines for a form of regional integration that will contribute to changing production patterns will require a redefinition of the criteria, for selecting policies, the way policy instruments are applied and the protagonists involved. In preceding chapters, national policies concerning trade liberalization, technology, education and training and expansion of the entrepreneurial base were discussed in terms of the goal of international insertion. Subregional and regional co-operation activities may be promoted in relation to each of these policies. Along the same lines, the fulfillment of the objective of furthering production interlinks would be facilitated by joint actions in areas that have already been explored at the national level, such as industry, agriculture, natural resources, transport, services to producers, telecommunications and information technologies, and the financing of changes in productive patterns. Lastly, interaction between public and private agents may also be facilitated by subregional and regional actions. Reference will be made below to only a few specific aspects in order to illustrate the potential for Latin American integration.

1. International insertion and liberalization of intraregional trade

a) *Symbiosis between external and regional demand*

Another section of this document examines the significance and scope of trade liberalization policies aimed at improving the countries' insertion into the world economy. These policies do not necessarily run counter to the existing integration agreements in the region. On the contrary, raising the level of intraregional economic interdependence would at the same time further the objective of improving international competitiveness, with the additional benefit that this would tend to diversify the structures of production in the region.

The symbiosis between subregional and external demand is evident in a number of ways. Perhaps the most important is that it helps to incorporate technological advances aimed at

raising productivity, thereby tending to increase exports and enhance import substitution in more efficient conditions. An attempt should be made to promote the gradual improvement of comparative advantages in those sectors where technological development and learning are facilitated by regional action. An inescapable aspect of this task is to encourage intraregional trade, especially of the goods and services produced by import substitution industries; these in turn, in response to the elimination of the distortions generated by the level and structure of the traditional protectionist system, may be converted into export industries.

Thus, to the extent that the innovations of products and processes required to export are introduced on the basis of needs that have originally arisen in national markets, it is easier to take advantage of them initially in subregional markets. Indeed, since demand is similar in the national markets (because large segments of the population have similar tastes and income levels), and distances are shorter (both geographically and culturally), it is possible to introduce these innovations at lower cost and less risk and uncertainty than in extraregional markets. Precisely as a result of learning, the same producers would gradually gain access to the markets of third countries.

Joint initiatives by two or more countries may provide firms with a number of advantages in respect of external economies, economies of scale and production complementarities, which result in lower average production costs. On the assumption that, in an integration scheme, there is a growing preference for intra-industry rather than interindustry specialization, many branches of production activity can be developed efficiently if the components of a product are manufactured in various production conglomerates located in different countries. In this context, the agreement on the free trade of capital goods between Argentina and Brazil is one example of the type of skilled-labour-intensive sector in which the liberalization and expansion of the market through intraregional trade can facilitate the development of extraregional exports (see box VI.2). The same is true for the recent decisions adopted in the areas of transport and

Box VI.2

AN ATTEMPT TO BOOST INTEGRATION: THE BILATERAL AGREEMENT BETWEEN ARGENTINA AND BRAZIL

In November 1988 the governments of Argentina and Brazil signed a Treaty on Integration, Co-operation and Development which aims to set up a free trade area between the two countries and establishes a period of 10 years for the construction of a common economic space through the progressive removal of trade barriers. The market thus formed would have a total estimated population of 170 million people and would concentrate within it nearly half the total regional production and over half the industrial product.

The most immediate antecedent for this decision is the signing of 23 protocols under the Economic Integration and Co-operation Programme, which began in July 1986. These protocols contain agreements on specific co-operation action in instrumental matters and in various fields such as reciprocal trade, the establishment of a common currency, science, technology, culture, communications and transport. Outstanding among the sectoral agreements are those on the aircraft and nuclear industries, not only because of their economic and technological potential, but also because of the element of geopolitical detente which they contain.

Under the terms of Protocol No.1, a partial free trade area limited to the products of the capital goods industry is established. This is a sectoral complementation programme based on the criteria of market expansion and intrasectoral integration, stimulation of technological development and intensification of competition. The universe of products - 650 tariff items - includes most electrical and non-electrical equipment and machinery of common or special use, components and parts thereof, and non-automotive transport equipment.

The conditions for liberalization of trade between the two countries provide for the elimination of tariff and non-tariff restrictions on capital goods included in a common list. In order to avoid lasting trade imbalances, provision is made for the granting of additional concessions by the country having a surplus, while various compensatory mechanisms are established to cover annual deficits greater than 10% of the value of total trade.

After four negotiating rounds, products corresponding to about a third of the tariff items included in the universe defined in the Protocol have been incorporated into the new régime. In 1987 and 1988 bilateral trade in capital goods grew markedly, thanks largely to the expansion of trade in products included in the common list. Moreover, the new arrangements favoured a reduction in Argentina's traditional trade deficit with Brazil, since the expansion in trade in products on the common list accounted for over 80% of the increase in Argentina's exports of capital goods to Brazil in 1987, but only 30% of Brazil's extra exports of such goods in that year.

Nevertheless, the trade in capital goods is only modest as yet, and so far it has not been possible to take full advantage of the possibilities offered by the Protocol. This will probably be achieved in so far as macroeconomic balances are attained in both economies, agreements are reached on public investment and the participation of foreign capital, and progress is made in the implementation of complementary agreements such as the Investment Fund and the Statute on Binational Enterprises. The Fund is designed to finance activities for supplying the expanded market, while the Statute would lay down the institutional conditions for joint investments.

telecommunications, *inter alia*, by Colombia, Mexico and Venezuela.

Finally, the trade liberalization being promoted in some Latin American countries is

resulting in increases in their total imports, including, of course, those of regional origin.¹ Thus, gradual trade liberalization offers the opportunity, among other things, of stimulating intraregional trade, even where the preferential

¹ For example, imports by Chile and Mexico from member countries of the Latin American Integration Association (ALADI) in 1988 increased by 42.7% and 162.6%, respectively. Preliminary figures for the two countries also indicate that there will be high growth rates in 1989.

margin for such trade is tending to decline. Moreover, the increase in competitiveness, in contrast to the excessively protectionist situation prevailing in the past, may encourage firms to increase their levels of efficiency. This would augment the probability that a large portion of the firms exporting to the regional market might later export to the world market. The intraregional and extraregional process of trade liberalization, together with the fact that a proportion of intraregional exports would gradually be converted into extraregional exports, would enable the regional integration of markets to make more of a contribution to trade creation – predominantly based on intra-industrial specialization – than to trade diversion. Trade creation basically presupposes that national products would be substituted by intraregional imports. The traditional theory of customs unions considers that this leads to improved efficiency, in contrast with trade diversion, which involves the replacement of extraregional imports by higher priced intraregional imports. In the case of trade creation, the cost of adjusting production is lowered to the extent that intra-industry trade is strengthened. As a result, firms can reduce the range of goods produced, and begin to specialize in certain products of the industrial branch to which they belong, without having to interrupt their operations.²

In brief, the dilemma between trade liberalization and exports on the one hand, and production of goods to satisfy domestic needs on the other, can be avoided. Both the domestic and the regional markets would serve as a base for exporting to third markets. A mutually reinforcing relationship would thus be created between local satisfaction of needs through a supply of low-priced products, and exports. Moreover, the geographical diversification of markets would reduce the risk of exclusive dependency on a small number of extraregional markets.³

b) *Trade liberalization as a tool of joint negotiation*

On numerous occasions the ECLAC Secretariat has insisted on the need to take advantage of the potential offered by joint negotiations by Latin American and Caribbean governments with third countries, in view of their combined purchasing power.⁴ Several obstacles have prevented greater co-operation in this respect; rather, as a result of the implementation of different adjustment programmes, the recent trend in Latin America and the Caribbean has been towards a unilateral process of trade liberalization, in the form of a reduction or elimination of tariff and non-tariff barriers.

These liberalization processes have thus far been implemented individually, sometimes as part of negotiating agreements for obtaining loans from multilateral financial institutions. It could be argued that the absence of a serious and sustained effort to explore the possibilities for obtaining such reciprocal concessions jointly, rather than separately, has contributed to the fact that they have been granted unilaterally.

Alternative forms of joint trade liberalization agreements should be explored for various reasons. Firstly, there is a need to identify concrete ways in which these processes of trade liberalization may be offered as a counterproposal to some recently proposed liberalization initiatives. Difficulties may arise in the negotiations to reach agreements on establishing equivalent tariff reductions with third countries, or on achieving a similar level of protection (which would amount to a common external tariff). However, the possibility could be examined of reaching a selective agreement on a tariff ceiling (a *bound* level) that the countries of the region would be prepared to agree not to exceed in future,⁵ and that would be proposed to the main extraregional suppliers in exchange for

2 However, trade diversion also involves potential advantages. See Daniel Chudnovsky and Fernando Porta, "On Argentine-Brazilian integration", *CEPAL Review*, No. 39 (LC/G.1583-P), Santiago, Chile, December 1989 (in press).

3 The lower concentration of exports from developed countries in markets of other developed countries is in contrast with the greater dependency of Latin American and Caribbean exports on these same markets. In 1987, approximately 76% of Latin America's total exports went to industrialized countries, compared to approximately 61% from Japan and 63% from the United States.

4 See, for example, ECLAC, *Protectionism: Regional Negotiation and Defence Strategies* (LC/G.1459-P), Santiago, Chile, 1988.

5 There are countries today in the region which, although members of the General Agreement on Tariffs and Trade (GATT), do not have "bound" tariffs, or countries such as Mexico and Costa Rica, which, although their tariffs are bound at certain level, actually apply them at a lower level.

significant concessions to ensure access to their markets. Secondly, it would be convenient to study the possibility of making such joint proposals by taking advantage of existing mechanisms, such as the Special Committee for Consultation and Negotiation (CECON) of the Organization of American States (OAS), for negotiations with the United States and Canada. The possibility might be explored of repeating similar exercises with all the main suppliers of Latin America and the Caribbean, using the appropriate mechanisms in each case.

Certain essential prerequisites must be met in order to carry out these explorations. The first is that the desired counterpart concessions must be in addition to those generated by other multilateral arrangements such as the Uruguay Round, and complementary to those already obtained through existing preferential schemes. It may be argued that the principle of additionality could serve as an incentive for continuing the processes of trade liberalization. Another prerequisite is that the consultation and negotiation exercise should envisage broad-ranging consultation machinery with the maximum number of participants from Latin America and the Caribbean and suppliers, and that the additional concessions should only be obtained if the main suppliers are prepared to grant them to the Latin American and Caribbean countries as a whole.

c) *Co-operation in transport and facilitation of intraregional trade*

Joint actions with regard to transport and communications are an obvious area for intraregional co-operation, both for the facilitation of trade among the countries of the region and for providing a service to the rest of the world which will help to enhance international competitiveness. As an example, two very important initiatives may be mentioned.

The first is related to the region's regular international transport industry, and the present danger that it will virtually be left out of important flows of world transport.⁶ Approximately 90% of the world's population, 77% of its land area, 95% of its purchasing power and 95% of its industrial capacity is

located in the northern hemisphere. The situation of transport shows the same concentration. There is a possibility that transport services will become even more highly concentrated as a result of computerized data processing, electronic data exchange, contractual arrangements for maritime and land transport, and various liberalization measures that have contributed to a significant reduction in the number of interruptions of traffic in goods between their origin and destination.

The region's geographical characteristics favour the use of maritime transport for shipping its international trade, which is clearly reflected in the figures, which show that more than 90% of trade is transported by sea.

Without a co-ordinated policy in respect of ports and maritime and land transport, the countries of Latin America and the Caribbean run the risk that their role will be limited to participating as a minority in extraregional maritime transport consortia, or merely supplying liaison services with the ports where cargo is transferred to larger ships, and providing land transport services within the region. In preparing concerted policy, the countries of Latin America and the Caribbean need to consider the possibility of integrating their cargo bases to enhance their participation in the extraregional maritime transport consortia, and strengthening their co-operation in regional transport. The joint effort must be based on the use of technologies which provide economies of scale, the use of intermodal networks and the establishment of support systems that include the use of information technologies, co-ordination of maritime and land services and streamlining of commercial and transport procedures and documents.

As for land transport of intraregional trade, three systems may be clearly distinguished: that of the Southern Cone, that of the Andean Group and that of Central America and Mexico. Although there have been some advances, significant deficiencies still exist. In this respect, one of the most interesting examples of co-operation in facilitating transport is that of a group of South American countries, which have combined the

⁶ See ECLAC, *The International Common-Carrier Transportation Industry and the Competitiveness of the Foreign Trade of the Countries of Latin America and the Caribbean*, Cuadernos de la CEPAL series, No. 64 (LC/G.1575-P), Santiago, Chile, November 1989, United Nations publication, Sales No. E.89.II.G.14.

streamlining of customs procedures with improved use of the existing infrastructure to reduce the impact of the cost of transport on the goods trade (see box VI.3).

With the progress made in the streamlining of procedures, it can be expected that the natural proximity of the Latin American and Caribbean countries – in view of their geographic continuity, common languages, similar customs and comparable consumption patterns – will contribute greatly to a preferential relationship without necessarily discriminating against third countries.

d) *Rehabilitation and expansion of regional payment facilities and mechanisms for attracting financial resources*

Latin America and the Caribbean have a vast amount of experience in the development of arrangements for facilitating multilateral settlement of trade payments. Until 1980 these facilities were very useful in promoting trade, while at the same time creating an extensive regional network for accelerating banking operations.

In today's international context, the fragility of national exchange systems is making exchange rates very unstable, thereby hindering trade flows in various ways and, indirectly, the effective operation of payment facilities. However, in a number of subregions, different operating methods have been successfully used which make it possible to preserve the core compensation facility, while at the same time adapting it to the practical needs of trade and capital transactions. The widespread trend towards the deregulation of exchange systems should facilitate these adaptations even further. Paradoxically, however, it could pave the way to the convergence (and possible integration) of the various subregional multilateral payment facilities, which would have been impossible under the conditions prevailing before 1985.

One facet of monetary co-operation related to payments is that of multilateral balance-of-payments support. There exists vast experience in this area as well. Although the external debt crisis has imposed financial restrictions which have prevented this type of monetary co-operation from continuing, the renewal of economic growth and the consolidation of financial stability in the regional framework should help to rehabilitate

it. The required effort may turn out to be more complex than in the case of payment facilities, but the need to have multilateral balance-of-payments support will continue to be inherent in any serious attempt at economic integration. Similarly, ways need to be sought to achieve further collaboration in medium- and long-term financing, as the Andean Reserve Fund (known as the Latin American Reserve Fund since June 1988), the Andean Development Corporation and the Central American Fund for Monetary Stabilization are attempting to do.

New forms of financial co-operation may also evolve, in the light of the present situation in the region. Promoting greater interlinkage between the operations of the stock and bond markets could – at a time when there is a tendency to privatize State enterprises in some countries – provide opportunities for complementary actions between investors in the region in relation to the ownership of these enterprises. The establishment, in external financial markets, of a commercial bank funded by public or private capital (or both) from various countries of the region could form the basis for a considerable subsequent effort to integrate and expand the supply of financial services and mechanisms for attracting short- and medium-term resources.

2. Support for international competitiveness and production linkages

a) *Technological policy*

i) *The establishment of a wider scientific and technological outreach*

The region's technological policy should seek to further the complementarity of production capacities and available technologies; to provide better knowledge and co-ordination of research activities in areas of common interest; to disseminate technologies in countries or sectors of the region where there is uneven development and where these technologies may have a significant impact if applied under similar conditions (agricultural technologies, disease control, mining and metallurgical processes, management and conservation of natural resources); and, lastly, to expand markets in order to open up new commercial opportunities for technological development in the region.

As mentioned above, technological development is systemic in nature, and thus includes a number of institutions (educational, financial and research-based) in addition to firms and markets. The integration of markets basically helps to link firms through competition, and occasionally through co-operation, without any expectation that these relations will be automatically extended

to institutions concerned with technological development, which in any case frequently are separate from enterprises at the national level.

Integration can help to stimulate co-operation among firms, and between them and other institutions, through information networks and agreements that may include anything from the merging of firms to the joint

Box VI.3

TRADE FACILITATION AMONG THE SOUTHERN CONE COUNTRIES

A group of South American countries comprising Argentina, Bolivia, Brazil, Chile, Paraguay, Peru and Uruguay has achieved noteworthy advances in trade facilitation through progressive improvements in their systems of transport, insurance, and customs and migration formalities. This has helped to make reciprocal trade easier and cheaper, thus supporting integration.

Constant advances have been made since 1963. In 1970, the Meetings of Ministers of Public Works and Transport of the Southern Cone Countries were established as a permanent forum for facilitating international land transport, while in 1977 the Agreement on International Land Transport was signed in Mar del Plata, subsequently replaced by the Agreement on International Land Transport signed in Santiago, Chile, in September 1989.

Among the most important aspects of the successive multilateral and bilateral agreements reached in this forum are the gradual recognition of the crucial role played by international transport in reciprocal trade; the importance of greater flexibility so that bilateral negotiations can take account of very different kinds of transport and situations between pairs of countries; the need to incorporate customs, migration and insurance aspects, which means that other sectors of government must be included in the process of consultation and negotiation, and the growing climate of mutual confidence between government authorities, which has been a decisive factor, along with the participation of transport entrepreneurs in the process.

The Agreement signed in Santiago, Chile, in 1989 is characterized by the simplicity of its provisions and the automatic nature of the authorization of enterprises and vehicles to engage in international transport. One of the

biggest advances in this new agreement is the establishment of an international customs transit system approved by the Directors of Customs of the Southern Cone countries. It also explicitly includes rail transport and thus gives it important support for becoming an effective element of subregional integration.

This new agreement is also supplemented with another one which regulates the contractual relations between users and transport contractors and lays down the rules to be applied in the event of loss, damage or delay in the delivery of goods, as well as the maximum liability of the transport contractor in case of loss. In this same forum, a single insurance policy was established which is valid in all countries and which permits the reduction of the transport costs in this connection. It was also agreed to use a single International Waybill and a single form to serve as international cargo manifest and international customs transit declaration, thus reducing the number of documents which have to be legalized for a transport operation and permitting these documents to be prepared by the transport contractor before arrival at frontier checkpoints, thereby expediting the normal formalities.

In contrast with what might be thought, the nature of international transport indicates that the absence of internationally agreed rules hinders such activity and its proper development. In other words, rather than facilitating international land transport, total liberalization constrains and hampers it, creating among the entrepreneurs a climate of instability and fear of being subject to the whims of the authorities. For this reason, the regulations thus approved and put into practice have been reflected in greater confidence on the part of transport entrepreneurs and have consequently made it possible for this activity to grow steadily and provide ever-increasing support for intraregional trade.

implementation of projects with research institutes, or the setting up of joint, high-level institutions which specialize in research and development. A wider economic and scientific outreach may help stem the exodus of skilled professionals to the extent that there is an increase in the autonomous capacity for the production, marketing and use of technologies and scientific knowledge in the region. Moreover, in so far as this outreach may help to develop a national technological capacity linked to regional or subregional systems, it may become the moving force behind a production modernization process. Promoting this type of integration may involve a broad spectrum of areas of co-operation, both in the framework of subregional integration processes and in the area of isolated co-operation activities.⁷

With regard to formal agreements, one option might be the harmonization or bringing into line of certain policies, such as those referring implicitly or explicitly to the competition or merging of firms, foreign investment (distinguishing between intraregional and extraregional), technological standardization, higher education and State purchases. The co-operation and integration arrangements with respect to higher education in the Caribbean countries members of the Caribbean Community (CARICOM) provide an example of the important advances that may be made in this area (see box VI.4). In general, the specific ways and means of bringing policies into line should be defined on the basis of a prior determination of such factors as the costs and benefits of using some of these policies as tools for intraregional preferential treatment in different sectors, possibly with varying degrees of geographical coverage. Advantage should be taken of the current Uruguay Round of tariff negotiations, in order to leave open the possibility of establishing preferential treatment in future.

ii) *Protection of industrial property*

Latin American experience shows that, although progress has been made in modernizing and standardizing national laws on patents and trademarks (for example, by

decision 85 of the Andean Pact), the conspicuous differences that continue to exist, e.g., with respect to the rights which patents and trademarks grant to their owners, hinder the technological dimension of integration. Moreover, the lack of mechanisms for the simultaneous recognition of patents and trademarks in more than one country places economic and bureaucratic stumbling blocks in the way of firms interested in carrying out regional activities. Finally, progress towards standardization needs to be adapted to the possibility that the costs and benefits of different systems of intellectual property may vary depending on the level of development of the country.⁸

The case of Europe again serves as an example of the requirements imposed by integration on the subject of industrial property. The European Patent Office today forms the basis of a European system of protection for industrial property, which not only allows for the speedy recognition of patents in the various countries members of the European Patent Convention, but also provides valuable technical information to firms which require such services. A European patent law is currently being prepared, and the decision has already been taken to create a European trademark office which will play a similar role to that of the Patent Office.

iii) *Development of joint science and technology projects*

Actions of more limited scope also need to be taken in support of integration through scientific and technological projects. This process has already been initiated in sectors such as biotechnology, information technologies, engineering services and capital goods. Economies of scale and specialization and the critical mass implied by a regional effort, together with the gradual intensification of international competition, require stronger actions in this field, thereby justifying additional subsidies, granted on a joint basis, for technological development projects.

In general, subsidies for research and development activities may have a long-term

⁷ This was recognized recently by the Presidents of the member countries of the Andean Group. See *Declaración de Galápagos: Compromiso Andino de Paz, Seguridad y Cooperación*, Cartagena Agreement (JUN/di 1283), 20 December 1989, p. 64.

⁸ Carlos Alberto Primo Braga, "The economics of intellectual property rights and the GATT: A view from the South", *Vanderbilt Journal of Transnational Law*, vol. 22, No. 2, 1989, pp. 251-264.

impact, and they may constitute barriers to market entry which make it possible to generate greater rents than could be expected in competitive markets. Selective criteria must be applied, for example, favouring sectors where there is already some competitive advantage, and where the products that are to be promoted are in the initial state of this process, which gives them an edge over extraregional firms which might enter in the same area. Another criterion

might be that of giving preference to those industries whose competitive advantage arises from the intensive use of resources which are relatively more abundant in the region or country.

However, in a system of oligopolistic competition such as the one that now exists in the international economy, research and development may form the basis for increasing

Box VI.4

EDUCATION IN THE CARIBBEAN: AN EXAMPLE OF SUBREGIONAL CO-OPERATION

Although education policy was originally formulated and implemented independently by the individual colonial governments of the Caribbean, all systems were patterned on the British model, which facilitated later co-operation. Thus, during the last 40 years, two major co-operative systems of education have been established and are operating within the English-speaking countries and territories of the Caribbean: the University of the West Indies (UWI) and the Caribbean Examinations Council (CXC).

The University College of the West Indies (later renamed the University of the West Indies) was established with a single campus in Jamaica in 1948. From the humble beginning of 33 medical students, the UWI now incorporates three campuses and a total student body of over 12 000. Presently, the University has faculties established in most of the important disciplines, namely, agriculture, the humanities, engineering, law, medicine, social sciences, natural sciences and education. The Imperial College of Tropical Agriculture, founded in Trinidad and Tobago in 1921, was incorporated into UWI in 1960, thereby beginning the second campus of the University. The Institute for Social and Economic Research (ISER), created at about the same time as the University, was also incorporated formally as part of UWI in 1960. In 1963, a College of Arts and Sciences was established in Barbados to better serve the needs of the Eastern Caribbean.

There is a certain degree of specialization, involving medicine at the Jamaican campus, agriculture and engineering in Trinidad and law in Barbados. The integration of education received a further boost in recent years with the establishment of the Distance Teaching Experiment (UWIDITE) at the Jamaica campus. This mechanism facilitates educational exchange between the three campuses and six non-campus countries via a leased telecommunications network.

The second major co-operative system, the Caribbean Examinations Council (CXC), is a venture in pre-university education among 15

Caribbean territories signatories to the agreement which established the Council, and involves a working relationship between CXC, UWI and the University of Guyana. The structural relationships, and the participation of the region's educators in CXC syllabus development and examination activity, help to ensure that the pre-university level education in the Caribbean bears greater relevance to the subregion's needs than was the case earlier. Thus, for example, CXC also caters to students who do not intend to continue higher level academic studies but who are likely to join the work force soon. Certification is therefore offered under basic, general and technical proficiency schemes.

The development costs of CXC are partially met by the members, while operating costs are covered by income earned from fees. Additionally, development costs are met by external funding agencies, which respond to requests from CXC with the full support of member governments. National ministries of education participate in the implementation of these projects.

Following its 1972 inauguration and a period of curriculum development and testing, steady progress has been made towards the proposed objectives, and exams are currently offered in 32 subject areas. At the request of governments, many of these are in the area of technical vocational education, in direct response to the need to provide entry-level skills for industrial development. The success of this Caribbean venture in intraregional co-operation can be gauged by the wide acceptance by regional and international universities of the Council's certification for purposes of matriculation.

Both UWI and CXC provide a subregional service that would be difficult for most, if not all, countries to provide separately. They not only ensure that course content, in their respective areas, is relevant to member countries' needs, but also serve as prime examples of integration and co-ordination of activities, filling an important role in the life of these newly independent countries.

the quota in the corresponding market. Under these conditions, the fact that the knowledge gained through research and development is not fully assimilated and used may benefit competitors. Regional technological development projects should therefore attempt to ensure that Latin America and the Caribbean can make full use of these technologies. To this end, close contact between research activities and enterprises must be encouraged; there is a need to stimulate co-operation agreements between firms, promote the intensive exchange of information and strengthen the firms' capacity to assimilate and develop technologies. This goal may be reached through programmes designed explicitly for this purpose, such as the European Strategic Programme for Research and Development in Information Technology (ESPRIT), partially funded by the European Economic Community (see box VI.5).

In order to reach these goals, reciprocal migration of skilled personnel must be promoted. Strong flows of this type already exist between some individual countries, such as Uruguay, Argentina, Paraguay and Brazil; Colombia and Venezuela; Chile and Argentina, and Bolivia and Argentina; among the Central American countries; and between them and Mexico. The drafting of laws or procedures for the recognition of technical and professional degrees and the streamlining of administrative procedures might favour a more selective regional mobility of workers directly involved with scientific and technological development.

Generally speaking, an increasingly intense exchange of information, people, goods and services should be encouraged. In view of the priority of research and applied technology, supported by information technology, particular attention should also be given to regional co-operation in telecommunications, taking advantage of the many applications of information technologies. This co-operation would need to be oriented towards facilitating a continual, flexible intraregional relationship and, at the same time, a rapid, effective link with the rest of the world.

iv) *Dissemination of information technologies*

The technology subsector of information also illustrates something about integration policies, the nature of their repercussions and their

achievements, in a sector with powerful systemic interrelationships. Indeed, as can be seen by the Information Market Policy Action Plan (IMPACT), the ESPRIT programme or the Research and Development in Advanced Communication Technology for Europe (RACE) programme of the European Community, economic integration makes it possible to do the following:

- create a sufficient critical mass to finance *research and development* programmes, which are particularly heavy in this sector (approximately 10% of the gross income of the activity).

- *standardize production processes*, allowing for a sharp cut in production costs, particularly by taking advantage of economies of scale in producing electronic components.

- *standardize finished products*, opening up possibilities for producing not only for national markets but for regional and even world markets by the partial or total acceptance of these standards by the rest of the world.

- *harmonizing policies and regulations*, thereby reinforcing the previous point and completing a framework for liberalizing international trade.

The European experience shows that, to the extent that national markets are insufficient, economic integration in this sector is a necessary prerequisite for its development.

b) *Specific sectoral policies*

The prime task of industrial policy at the regional level is to help to stimulate linkages among sectors, enterprises and institutions of different countries with a view to facilitating the learning and dissemination of technology, bearing in mind the criterion of using available resources while enhancing the industrial, technological and engineering capacities generated during the previous industrialization stage. It should be noted, however, that in the field of co-operation on sectoral policies, difficulties and sometimes even conflicts may also arise between integration agreements and national policy.

In sectors such as iron and steel, paper and pulp, aluminium, coal and petrochemicals, joint exploitation, marketing, research and development efforts may be based on already

existing organizations in the region (e.g., the Latin American Iron and Steel Institute (ILAFA), the Latin American Confederation of the Pulp and Paper Industry (CICEPLA)) and

important precedents in other regions (the role played by the iron and steel community in Europe is no coincidence).

Box VI.5

RECENT PROGRAMMES FOR CO-OPERATION IN THE FIELD OF SCIENCE AND TECHNOLOGY IN THE EUROPEAN COMMUNITY

At the time the European Common Market was created, technological development was not, in general, accorded a high priority. In 1983, however, the European Economic Community (EEC) altered its course and allocated a large amount of resources for a series of "second generation" programmes emphasizing information technologies, biotechnologies and new materials. Co-operation and integration played an important part in this effort.

The signing of the Single European Act (February 1986) gave a Community dimension to scientific and technological co-operation in Europe and led to the initiation of a number of large-scale projects. The Community's programmes in the field of information include the European Strategic Programme for Research and Development in Information Technology (ESPRIT) and the programme for Research and Development in Advanced Communication Technology for Europe (RACE). The Community also has launched a programme for Basic Research in Industrial Technology for Europe (BRITE), which focuses on the application of modern technologies in traditional industries, and the Biotechnology Action Programme (BAP).

These programmes' objectives in the field of scientific and technological research are: i) to strengthen European entrepreneurship by bringing research into closer contact with the public and private markets; ii) to reduce the compartmentalization of research by increasing the integration of the participating countries, individuals and firms, as well as of the disciplines and levels of research involved; iii) to change the function of governmental authorities from a regulatory role to one of facilitation; and iv) to establish more flexible mechanisms for programme promotion and management than those previously used.

Generally speaking, the Community's programmes can be said to have the following main features: i) they integrate the private sector into the pre-competitive stage of research efforts; ii) they are confined in scope to the member

countries of the Community; iii) they channel resources to priority sectors (and may provide for differing degrees of priority even among such sectors); iv) they assign the responsibility of defining objectives and courses of action to the countries' representatives; and v) they put projects out to tender and share and disseminate the results.

As regards their procedural aspects, the overall programmes are approved by all the members of the Community following consultations with the European Parliament and the Economic and Social Committee of the Community. This is the level at which the major scientific and technological objectives of the Community are defined, the corresponding priorities are established, and the estimated amount of funding needed for the duration of a programme is determined. In most cases the Community covers 50% of a project's cost and the participants (public and private laboratories) provide the rest. The governments of the participants' countries usually finance 50% of their contribution.

The EUREKA initiative is aimed at promoting research during its competitive stage. The characteristics of this programme can be outlined as follows: i) its scope is broader (in addition to the countries of the Community, it includes the member countries of the Commission of the European Communities, of the European Free Trade Association and Turkey); ii) it does not provide for the assignment of differing priorities to the various sectors of research; iii) it is oriented towards the civilian market in Europe and the rest of the world; iv) the amount of value added can be accurately determined; v) it ensures that a major technological advance will be made; vi) it brings together participants from different countries (usually three or four partners, except in the case of the macro-projects dealing with the environment, roadways, coastal zones, etc.); and vi) participants are required to make a significant financial investment. The initiative was launched by business firms rather than by the governments or the Community; consequently, all industrial property rights belong to the participants, and the governments cannot veto the projects.

With regard to market stimulation, the most relevant sector is perhaps that of capital goods, where the undoubtedly important factor of intrasectoral trade must be transcended in order to encourage intersectoral linkages between the production of machinery and equipment and the principal user sectors associated with the exploitation of natural resources. Preference should be given to linkages of the subregional production systems composed of manufacturers of capital goods, engineering firms and the main user enterprises. For example, links could be established between the large-scale mining enterprises of certain countries of the region and local suppliers of the corresponding equipment and engineering services; the same could be done in the oil, forestry, fishing and food activities, and in the case of some public services such as telecommunications and electric energy.

Another sector in which the criterion of intrasectoral co-ordination applies, and which requires an effort at restructuring at the national level and possibly joint action at the regional level, is the automotive industry. It would seem to be important at least to encourage a systematic effort to exchange experience on the restructuring of this sector, which might eventually lead to identifying joint actions to increase the real competitiveness of the production subsystem composed of private vehicles, cargo vehicles, producers of parts and spare parts and, in some cases, providers of special fuels.

The specific difficulties that arise in agricultural integration are illustrated in the complex negotiations and high cost (budgetary and to consumers) of the joint agricultural programme of the EEC, and the initial resistance and later delays with which provisions concerning agricultural trade were admitted into GATT. A multiplicity of regional, subregional and even bilateral agencies have been created to deal with the problem of food security in Latin America and the Caribbean. Enterprises (particularly agroindustries and supply and marketing firms) will need to

participate in the defining and implementing of actions to limit the variability of the flows and prices of basic foodstuffs, since the degree of variability of food production is lower at the subregional level than if the countries are taken separately.

The existence of externalities justifies co-ordinating research on environmental effects of transboundary productive activities and those which, although their effects are localized, are repeated in more than one country. In view of the scarcity of existing research and the indivisible nature of the problems usually involved, it would seem necessary to develop regional programmes to study the interactions of the major ecosystems of the region (impact of the redesign of hydrological systems, regional effects of the transformation of the Amazon basin, transborder impact of changes in land use on natural disasters, etc.), and ways of recovering disturbed environments. All this also justifies an attempt at further development of integrated schemes for the prediction of weather and earthquakes.⁹

Lastly, mention could be made of initiatives to further improve and harmonize provisions on the environment and the conservation of natural resources, especially where there is a conflict of interest between two or more countries. Some concrete examples are shared fishery resources in bordering coastal zones, the use of water resources in international rivers and lakes and the exploitation of oil wells in frontier zones.

3. Strengthening the institutional base of integration

In order to revitalize integration, to make it a functional tool for economic change and to provide it with continuity and follow-up, a number of institutional requirements must be met. At one level, subregional bodies must be converted into real focal points for decision-making officials and bodies in the various national economic and political arenas. At another level, a wide-based political consensus must be reached, and there needs to

⁹ The Treaty for Amazonian Co-operation, signed in 1980, basically originated as a result of concern for the environment, has also been reflected in the periodical meetings of the Foreign Ministers held under this treaty. In addition, the presidents of the member countries of the Permanent Mechanism for Consultation and Policy Co-ordination referred to this topic at their meeting held in Ica, Peru, from 11 to 12 October 1989. See *Declaración de Ica*, point VI, entitled "Medio Ambiente".

be a high degree of participation and social awareness of the potentialities of this task.

In this context, some general guidelines may be offered to meet these requirements. Firstly, the participation of various public and private agents in the decision-making process must be expanded. At the governmental level, it is clearly insufficient to make one body – often the Ministry for Foreign Affairs – the only focal point for negotiations. Rather, it would be better for the various branches of government to intervene in the negotiation and agreement process, depending on the subject in question. To ensure that integration will be used for economic change, the ministries responsible for the various production sectors need to participate directly in the initiatives and achievements of integration.

Along the same lines, it is essential to include the various business associations (either subregional or regional) in the formulation and implementation of integration agreements. Greater participation by the private sector in the integration processes should be sought, and selective and clearly feasible agreements should be reached in order to enhance their credibility for entrepreneurs and investors. The importance of specialized entrepreneurial organizations at the regional level is obvious (see box VI.6), not only as nuclei for integration but also as centres for facilitating co-ordination and contact between the bodies in charge of promoting local purchases of capital goods and services in the various countries (whether through networking centres in State enterprises or through multisectoral bodies).

Box VI.6

THE LATIN AMERICAN ASSOCIATION OF CAPITAL GOODS INDUSTRIES (ALABIC)

Between 1980 and 1986 ECLAC and UNIDO, with financial support from UNDP, conducted a regional project aimed at analysing the present status of the capital goods industry and its future prospects. In order to ensure that the project activities would have the widest scope feasible, contacts were established with the major Latin American manufacturers of machinery and equipment. Regular meetings were held to inform the manufacturers about the project's findings.

The integration of such firms into the effort to organize a collective appraisal permitted a proper evaluation and use of the studies and their findings to be made. Two of those findings which were of particular significance concerned the large scale of the overall regional market and the small proportion of the market supply originating within the region itself, despite the existence of idle production capacity both in the larger countries and in the medium-sized and many of the small nations.

In the course of this working relationship it became evident that the Latin American industries of this sector in one country had virtually no contact with those in another and that, as a result, they had made redundant investments and had missed important opportunities for joint action. As a corollary to this absence of contact among industrial firms, buyers suffered from a serious lack of

information as to the actual capacity of the capital goods industry in the region.

This initiative resulted in the establishment of personal contacts among the most senior executives of these machinery and equipment manufacturers. This naturally led to agreements to undertake specific projects and to embark upon joint action in dealings with governments and international financial agencies.

In order to ensure the continuance of such activities, the decision was taken to provide an institutional framework for these group efforts by creating the Latin American Association of Capital Goods Industries (ALABIC). In order to facilitate contact with ECLAC, whose guidance and support were considered valuable by the entrepreneurs, Chile was chosen as the site for this organization's headquarters.

By September 1989, ALABIC already had 33 member firms in nine countries (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay and Venezuela). In addition to their production activities, these industries, which are of varying sizes and degrees of technical sophistication, have in common the fact that they are genuinely Latin American firms in terms of the control over both the companies' capital and their management.

The significance of the industrial core group formed by the member firms of ALABIC is

illustrated by the fact that they employ over 50 000 skilled workers. The products they manufacture cover a very wide range, including everything from large ships, locomotives, powerful electric motors and internal combustion engines, cranes, entire steel mills, equipment for nuclear plants, large turbines and generators, steel rolling mills and platforms for offshore oil drilling rigs to precision equipment, measuring instruments and integrated automation and control systems.

The capability to conduct complex manufacturing processes is not confined to the larger countries. A Paraguayan firm has built such important parts for the Itaipú hydropower plant as generator braces, turbine parts and large sluice gates; a Colombian company exports large boilers to the United States; Ecuador manufactures heavy-duty pumps for use in shrimp cultivation; and Bolivia produces logging equipment and replacement equipment for the mining industry.

Secondly, Latin American and Caribbean integration institutions must be strengthened and in some cases reoriented. The advances made by the European Community would certainly have been much more limited without the joint action of a strong community entity, well supplied with resources, combined with governments prepared to achieve objectives with respect to major aspects of integration.

Thirdly, the consolidation of political support for the integration process may be expressed in many ways. On the one hand, the approach of strategic concerted action should be expanded at the regional level, especially in the context of intergovernmental integration fora and within their secretariats. On the other hand, the potential success of an integration process in terms of energizing national economies, increasing their international competitiveness and benefitting their consumers, depends on various factors. Indeed, it is not only necessary to bring into line macroeconomic and tax policies, lower trade barriers among the participant countries and between them and the rest of the world, and promote programmes of co-operation among technological enterprises and institutes in the region, but also to encourage agreements between public and private agents.

It would also be useful to expand political participation in the integration process through the presence of national parliamentarians in bodies such as the Andean Parliament, the Central American Parliament and a renewed Latin American Parliament, whose members might even eventually be directly elected by their countries. This could help to link the political movements and parties represented in the congresses of each country with the relevant integration schemes. Moreover, regional and subregional academic institutions and other bodies which study and interpret reality have an important responsibility for promoting the ideals of Latin American and Caribbean unity.

Lastly, it would be helpful to leave rhetoric behind and further improve the existing concerted arrangements, so that presidential statements of willingness may be translated into actions and follow-up. To this end, it would be of help to establish fora where the integration agreements could be discussed in depth by the ministers of the corresponding areas, whether economic, political or social. This could make the agreements more realistic and feasible since national contingencies and the interests of power groups would be taken into account beforehand.

Annex

Sources of the information contained in the boxes

The boxes were prepared by the ECLAC Secretariat on the basis of internal documents of the various divisions, studies prepared by consultants, and external sources of information.

Box IV.1. Brazilian Aircraft Corporation (EMBRAER)

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Box VI.2. An attempt to boost integration: the Bilateral Agreement between Argentina and Brazil

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